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ORIGINAL LECTURES.

CLINICAL LECTURE
ON
CERTAIN NERVOUS AFFECTIONS,
(LOCAL HYSTERIA AND CATALEPSY,)
DELIVERED AT
King's College Hospital.

By ROBERT B. TODD, M.D. F.R.S.
Physician to the Hospital.

Gentlemen,—I wish to call your attention to-day to two interesting cases of nervous affection. The subject of the first case is still in the house, but the other left us a few days ago, and I regret that, in consequence of the transitory nature of the symptoms from which she suffered, and from the attack having occurred at midnight, few of you had an opportunity of witnessing them. The symptoms were of a very interesting nature, and not often met with. For this reason, and notwithstanding that you have not all seen them, I think it may, in some degree, supply the opportunity which you missed, if I detail the case to you, and make some remarks on its pathology and treatment.

The first case, then, is that of Harriet B., aged 30, in Lonsdale Ward, for the notes of which we are indebted to my clinical clerk, Mr. T. Bridgewater. (Vol XXXIII., p. 177.) This patient was admitted on the 7th of May, 1851. The point of greatest interest about the case is, that she suffered acute pain in the right hypogastric region of the abdomen; the pain was of so acute a nature that she could not bear the slightest pressure on the affected part; even the weight of the bedclothes was painful to her. This pain was her main complaint, and it is for the relief of this she has been admitted to the hospital. It would be impossible to find an instance of a more strictly localised pain than that afforded by this case, nor could I bring before you a more striking example in which relief from pain was more peremptorily demanded from the physician as the one thing complained of by the patient. Cases of this kind you will often meet with hereafter in your practice, and you will do well to note carefully such as may come before you now, and the treatment which may appear to be serviceable, for nothing contributes to professional success more than the power of readily appreciating the nature and causes of pain, and tact in applying suitable and efficacious remedies.

Severe abdominal pain, whether general or limited to a spot, is at once suggestive, both to practitioner and patient, of inflammation within the abdomen; it may be, of peritonitis. This latter malady is, as you know, a severe one, and, in the majority of cases, fatal. How important, then, is it to be able to determine whether such pain is due to a cause of this kind or to some other!

The pain under which this woman suffers is referred to the right hypogastric region, over the position of the right ovary, and the painful part occupies a circular space of about two and a half or three inches in diameter. There is extreme tenderness to the touch; even when the integuments are pinched up with the utmost gentleness, and with every care to avoid compression of the subjacent parts, she shrinks and appears to suffer great pain. Deep pressure on the corresponding region of the left side causes pain likewise, as if by implicating the right side.

There is another very important feature in the case which deserves especial notice; it is this, that when her attention is much engaged, she certainly suffers less, although she cannot be said to be free from pain. Upon making a careful examination of the part, we could detect no tumour; and, upon pressing deeply, no abnormal condition of the ovary could be discovered; and although there was pain, there was no increase of it to a proportionate extent.

Her history we found to be as follows:—She is unmarried; but, many years ago, she fell a victim to the seduction of some improper person, and, having become pregnant, she suffered a very severe labour, in which the perinæum was lacerated; in consequence of this injury, she was under surgical treatment in the hospital for some time.

[No. 692.—New Series, No. 131.]

Three months before her admission into the hospital, she had a severe attack of diarrhœa, accompanied by vomiting. Her bowels have since continued in an irritable state. The catamenia have always been irregular, and there has been a constant drain, more or less, from leucorrhœa, which increased in quantity as each menstrual period recurred.

On her admission into the hospital, she was still suffering from diarrhœa, but there was nothing very unhealthy in her expression of countenance, nor was her abdomen unduly swelled. The abdominal walls were lax, and the bowels were but slightly tympanitic. It appeared that the pain came on at the same time as the diarrhœa, and at first was aggravated by taking food.

This curious and not easily explicable connexion between the hypogastric pain and the state of the alimentary canal led me to direct the early treatment to allay irritation by checking diarrhœa, which, if allowed to continue, would have impaired her general health, and aggravated the other symptoms under which she laboured. With this view, then, she was ordered to take astringents with opium, and, under the influence of this treatment, the diarrhœa was checked, but the abdominal pain and tenderness remained as before; hence it became the more important to determine the precise nature of this pain; and, with this view, let me conduct you through the various steps of the diagnosis.

We will suppose ourselves at the patient's bed-side; and, having attentively listened to her history, and heard her complaints, we find that she suffers great pain upon the slightest pressure in the right hypogastric region, in the position and over a space such as I have already described. Upon further examination, we find the pain nearly as great under slight as under deep and heavy pressure.

What, then, are the conditions that might give rise to such a pain as this?

The first and most obvious cause, which the history at once suggested, was, that the pain had its seat in the irritated bowels. It was in the region of the termination of the ileum and commencement of the colon; and there is no cause so fruitful of diarrhœa as irritation of those parts of the intestinal canal. But the objections to this view of the case were as follow. There was no tympanitic state, such as bowel irritation sufficient to create so much pain would infallibly produce. Again, the bowel irritation was easily controlled very soon after her admission into the hospital, yet the pain remained in all its intensity.

Secondly, it might have been due to a local peritonitis; but the objections which I have just urged to the pain having its seat in an irritated bowel apply with equal force to peritonitis. And, as an additional objection, also applicable to both views, I may here state the fact, that the pain was as great when the integuments were greatly pinched up as when deep pressure was made; whereas, in peritonitis as well as in inflamed bowel, firm and deep pressure would cause by far the greatest amount of pain.

A third cause might have been inflammation of the ovary. To this view, however, was opposed the absence of any swelling or tumour in the hypogastric region, and of increased pain on deep pressure. And, on examination *per vaginam*, Dr. A. Farre could not detect anything wrong with either ovaries or uterus.

Any inflammatory affection of the abdominal muscles, or of the iliacus internus or psoas muscles, was insufficient to explain the pain, because the movements of the trunk or of the limbs could be effected without pain; and, indeed, with all three of these conditions, it may be regarded as quite incompatible that our patient has never had, since she came into the hospital, that amount of fever which would infallibly accompany a severe internal inflammation.

Lastly, the symptoms might be referrible to that peculiar state of the nerves, superficial as well as deep, which gives rise to that kind of pain which conventionally (and, in the present state of our knowledge, conveniently enough) we call "hysterical pain." This pain, also called a nervous pain, is no doubt just as acute and severe to the patient's feelings as any pain from injury or organic lesion, although, in the parts to which it is seated, we can discover no alteration of structure whatever.

You see that we have excluded from the diagnosis peritonitis, enteritis, and inflammation of the ovary. Let us now inquire how far the hypothesis of the pain being hysterical is borne out by the accompanying phenomena.

The great tenderness of the skin to the slightest touch is very favourable to this view, which is likewise supported by

the fact of the little difference in the intensity of the pain under deep and under superficial pressure.

The slightest touch to any other part of the body makes the patient suddenly shrink back with a greater or less expression of pain,—a character which belongs to all these hysterical affections. Often when you bring the finger close to the skin, there is an expression of pain nearly as great as if you had actually touched it.

Certain features in the general constitution of the patient confirm this view; she is evidently of an hysterical constitution, and exhibits that peculiar appearance of countenance which I have often pointed out to you by the name of "facies hysterica," characterised by a remarkable depth and prominent fulness, with more or less thickness of the upper lip. There is also a fulness and obviously drooping condition of the upper eyelids. This drooping conformation of eyelids is at once a mark of beauty, and of that from which many beautiful women suffer very much, namely, the hysterical state of constitution.

She also exhibits that irritable state of spine under which hysterical patients are apt to suffer. The least pressure on a spinous process causes her to shrink and to complain of a pain shooting forwards from the point pressed on; and, as is so often the case with patients of this temperament, she complains of pain from pressure, in whatever part of the body it may be applied; whenever she is touched, whether the finger comes in contact with her arms, or back, or any other part of the body, she exhibits an undue degree of sensibility, and shrinks.

Then there is yet another point about the case which I have not mentioned. We find, on referring to the history, that the patient never menstruated regularly. In the vast majority of cases of hysterical affections you will find something wrong about the uterine functions; and, although I am not prepared to lay it down positively, that the disease (as its name implies) depends solely upon this disturbance, you will find in the many forms of hysterical affections that may be brought under your notice, that it will rarely happen that there is not some deviation from the healthy action of the uterus exhibited in the disturbance of the menstrual function. A large proportion of hysterical patients suffer from leucorrhœa; in others, the catamenia are insufficient in quantity, or occur at irregular intervals. Sometimes the menstrual secretion recurs at short intervals, and is very profuse, so that we have that condition to which the term "menorrhagia" has been applied. Perhaps there is an irritable condition of the uterus, causing almost constant pain and tenderness in the uterine region. No one of these conditions is constantly observed, but in almost every case of hysteria there is some form or forms of uterine disturbance.

Thus, then, we arrive at the conclusion, that the symptoms in Harriet B——'s case are to be referred to an hysterical state of constitution. The case is a good example of one form of local hysteria, to some of the other forms of which I shall briefly call your attention.

Of all these conditions, that which has been called "irritable uterus" is by far the most formidable. It is characterised by exquisite pain and tenderness in the region of the uterus,—even the slightest pressure over the organ, or the least touch applied to it in the examination per vaginam, causes great suffering, and the patient shrinks in consequence. At the same time there is no enlargement or other organic change in the organ.

Another form of local hysteria, is a pain of very frequent occurrence under either breast, and, what is rather curious, more commonly found under the left than under the right breast. Leucorrhœa is so often concomitant with this pain, that whenever I find a patient complaining of it I invariably ask if she suffers from leucorrhœa or conversely; if leucorrhœa be present in any quantity and for any time, I am led to inquire about the local pain. That there is a connexion between the leucorrhœa and the pain in the side scarcely admits of a doubt, for the pain is more severe if the leucorrhœa be profuse, and it very commonly happens, that as soon as the healthy condition of the uterine functions has been restored, the pain will disappear. My theory of the production of this pain is this—I believe that in cases of this kind there is not only an irritated state of uterus, but also of one or both ovaries, and the pain is more immediately associated with the irritable ovary, the nerves of which, implanted, as many of them are, in the spinal cord, reflect the irritated state on to the nerves of the submammary region. It is an interesting example of a reflected sensation.

A third form of local hysteria is one with which you should be familiar, and be able readily to diagnose. It manifests itself in that pain in the stomach which is commonly called "gastrodynia," which we must be very careful to distinguish from the pain resulting from ulcer of the stomach, as an essentially different treatment would be obviously applicable to each. One form of ulcer of the stomach very often occurs in young chlorotic women, amongst whom also we most frequently meet with the gastrodynia; hence the importance of paying close attention to the symptoms, which will enable us to distinguish with certainty the one from the other. An important difference is, that in the hysterical affection, the pain may occur at any or at all times, whether the stomach be empty or full; nor is there any constant relation between its development and the ingestion of any particular kind of food. On the other hand, the pain from ulcer of the stomach is distinctly influenced by the taking of food, but especially of that kind which it is the province of the stomach to digest. Patients with ulcer will tell you, that as long as they abstain from food, they have little or no pain; but as soon as they eat anything they begin to suffer, and they are not easy until digestion has been completed. Hysterical patients, on the other hand, will tell you, that the pain comes on as soon as they rise in the morning, and continues perhaps all day. You will also find that these patients exhibit more or less of the hysterical constitution. With reference to the diagnosis between these two kinds of stomach pain, you should always inquire if there has been vomiting of blood, as this forms a most important symptom in the history of ulcer of the stomach. Or, if there have been no vomiting of blood, you should inquire whether it may not have passed through the pylorus into the intestinal canal, in which case you will find, upon inquiry, that the patient has passed very dark matter from the bowels; the stools, in fact, exhibit a pitchy character in those cases in which blood from the stomach passes by the bowel. The effects of the treatment to which the patient is subjected will also often enable you to distinguish the true ulcer of the stomach. Beer and stimulants, and all acid drinks, greatly aggravate the pain from ulcer, while they often tend to relieve the hysterical affection. Bismuth acts very favourably in the one, but not so in the other.

Another form in which we find local hysteria manifesting itself is exhibited in that condition called hysterical spine. You have a good example of it in the patient whose case has led to these remarks. If you pass your finger down the spine you will find some places very irritable; perhaps the painful situation may be confined to one particular spot, or it may extend over three or four spinous processes, or the whole spine may be affected. Whichever be the case, you will find that the patient suddenly shrinks as soon as the irritable part is touched, and appears to suffer, and no doubt does suffer, exquisite pain. Now, this condition has been over and over again mistaken by careless practitioners for caries of one or more of the vertebræ; and in consequence the unhappy patients have suffered from all the artillery of physic; leeches, blisters, and setons have been applied to the spine, and other antiphlogistic measures have been resorted to, but without any effect beyond, perhaps, aggravation of the pain. The most important point, by means of which you may distinguish vertebral caries from the hysterical affection is this: in the vertebral disease the pain is not so excessive, and is always fixed in one part, and it will be found to increase gradually as the disease advances.

Hysteria likewise affects joints. A patient has a pain in her knee or her hip, or some other joint. I have no doubt that in these cases there is not only an affection of the sentient but of the muscular nerves likewise; for the muscles are either spasmodically affected, or relaxed, or paralysed, occasioning difficulty and awkwardness in the movements of the joint.

Many instances of what are called neuralgic pains are referrible to the hysterical state, and the case of Harriet B. is one of them. But you must take care to distinguish the true neuralgic from the hysterical affection. They are different diseases, although probably nearly allied. In the true neuralgia there is an altered nutrition of the affected nerve as decided as that of the tissues of a joint affected

with a transient attack of gout. Such, however, is probably not the case in hysteria.

Our patient, Harriet B., has continued in the hospital for a considerable time. Repeated examinations tended only to confirm the diagnosis I have given, and she has had two or three hysterical fits. On her admission she was treated for the diarrhœa, under which she was then suffering. The diarrhœa ceased, but the pain remained unabated.

Since that time the treatment has been chiefly such as would check leucorrhœa, improve tone, and promote general health. The tepid shower-bath, the cold hip-bath, mild aperients with galbanum, and the citrate of iron, were administered for some time. The result was a very marked improvement of the general health.

Notwithstanding this treatment the pain in the hypogastrium continued troublesome, although diminished in severity. Local treatment was employed; leeches, blisters, and opiate applications were applied, without good effect. At length, fearing that these applications tended rather to aggravate the pain by fixing her attention upon the affected part, which undoubtedly they are apt to do, I applied a blister to the corresponding spot on the left side, and kept it discharging for some time. This treatment was attended with the happiest result; the pain left the right side, but, as if in illustration of its true nature, she now complains of a pain in the left or blistered side, less severe, however, than the original pain. But from the great improvement in her general health, and the abatement which has already taken place in her symptoms, there can be no doubt that time is now the most important element in her cure. (a)

Case 2.—I shall now proceed to the second case, which I think is worthy of your attentive consideration. The patient's name is Amelia D——, and she is 38 years of age. (Vol. XXXIV., p. 64.) I am sorry that she is not still in the hospital. The fact is, that the urgent symptoms for which she was admitted yielded so quickly, that she remained in the house only a very short time. Still, the symptoms were so remarkable, and the case so rare, that I feel I should not be doing right were I not to bring it specially before you.

In giving you a history of this case, I cannot do better than quote from the graphic description in the notes made by Dr. Hyde Salter, our able house-physician, who saw her from the moment of her admission.

On June 5th, about ten o'clock in the evening, (Dr. Salter states,) I was called to see a patient who had just been brought into the hospital by a policeman, who had found her speechless in the streets. I found a woman sitting in a chair, looking quite intelligent and coherent, although evidently in great excitement and distress; her expression was anxious, and she looked from one to the other in an inquiring and imploring manner; her teeth were fast clenched, and her lips parted. On being asked who she was, she shook her head; when asked what was the matter with her, she pointed to her mouth and masseter muscles; when asked if her jaws were locked, she nodded her head. I then tried, with all my force to separate them, but could not; then I felt her cheeks over the masseters, and found these muscles contracted into hard knots, which sufficiently explained the closure of the jaws. When questioned as to the cause of the tetanus, she clenched her fist and struck her left cheek, implying that she had had a blow there. I said, "Have you had a blow there?" She nodded her head. We asked her if she could write. She shook her head, and clasped her hands in a despairing way. We then asked her if her husband had given her the blow. She nodded assent eagerly.

By degrees, putting all sorts of questions, and getting nods or shakes of the head, as the case might be, I learned that she lived in the neighbourhood of London, that she had been struck there by her husband that day at two o'clock, and that the blow was the cause of the attack; also, that she was thirty-eight years of age. All these things afterwards proved to be true. While answering our questions as well as she could, she suddenly, and without any warning, slid from her chair in a state of apparently complete insensibility, and would have fallen on the floor had she not been supported. Then commenced a series of spasms more strange and horrible than can be conceived or described, tetanic and clonic, partial and complete, symmetrical and irregular, varied in every conceivable and inconceivable way. First she had opisthotonos, then she was thrown forwards, then she twisted round and writhed like an eel, then she would throw herself forward and raise herself into a sitting posture, then she would roll over and over, then a slow undulation or wave of spasm would pass over her from head to foot, producing different movements of her limbs as it passed down, like a dog dying of hydrocyanic acid poisoning.

You might almost be led to think that this description is overdrawn, but I can myself bear testimony to the accurate statements of the facts, as I was present during the greater part of the time. Then, continues Dr. Salter, "the tonic spasm would suddenly become clonic, and she would throw out her arms and draw them back with great force. The legs would be affected in a similar way, or drawn up to the body, so that the heels were close to the buttocks, or thrust stiffly out. When holding her hand she would suddenly clutch mine with such force that I could not disengage it. Meanwhile, her face was undergoing all sorts of contortions, at one time expressing rage, at another intense fear, then a sneer, then a fixed and rigid stare; the eyes might be rolled upwards or downwards; the pupils dilated, and insensible to light; then the elevators of the upper lip and ala of the nose would jerk, perhaps on one side or both, exposing the teeth. The depressor anguli oris would draw one corner of the mouth down on the chin, or the platysma throw the skin into a state of rigidity;" but, as Dr. Salter remarks, it is quite impossible by description to convey any accurate idea of the extraordinary contortions of the patient.

One of the most remarkable features in the case was the rigid tonic condition of the whole muscular system. Every muscle employed in any movement became at the same time as hard as a board, and the movement was not so much executed with rapidity as with great force and even slowness. But in watching her attentively, it was plain that the movements, varied and irregular as they were, did not partake strictly of the character of involuntary movements. They were evidently influenced by a will, but by a diseased and an ill-directed will. While these spastic movements of the muscles continued, there appeared to be complete insensibility to surrounding objects; but when they ceased, her intellect seemed quickly to recover itself, and she could talk freely and collectedly. At this time she gave us her history, which we afterwards ascertained to be correct. In the midst of her narrative, her eyes suddenly became fixed, and she stared at us for a short time and fell off into another paroxysm, and went through the same series of varied movements and contortions as before. She continued in this state, alternately in fits and quiet, for nearly two hours, and then slept.

Now, on being called to a case of this kind, you would have, on the spot, to decide upon its real nature, without the help of any history on which full reliance could be placed. Such was our case when we first saw this patient; and, therefore, before I give you any further details of the case, I shall state to you the conclusion arrived at by Dr. Salter and myself, and the grounds of our decision. We had to distinguish these extraordinary muscular movements from the state of trismus, of tetanus, and from epilepsy.

The distinction from trismus was sufficiently easy. The fact of her coming to herself so soon, and the subsidence of the spasmodic action of the muscles, was quite sufficient to enable us to diagnose that the condition was not trismus, and the absence in the history of all those causes which ordinarily give rise to this affection also tended to the same conclusion. In the same way that we were enabled to say that we were not dealing with a case of trismus, we also came to the conclusion that the case was not one of tetanus. Trismus and tetanus are but degrees of the same affection. In both diseases the muscular movements are distinctly involuntary, and often excited by the application of some stimulus to the surface. In this case, however, the movements bore a decided resemblance to the voluntary class, and could not be excited at the will of the observer.

At first sight, the affection bore a greater resemblance to epilepsy than to any of the other forms of convulsive disease; but there were certain distinctive features, which enabled us very positively to decide that it was not epilepsy. These were the nature of the movements, and the affection of the consciousness. The movements partook more of the tonic than of the clonic character; and although at times very much varied, they were combined and regular, and, as it were, directed to an end and by a purpose,

(a) This patient remained in the hospital till Aug. 31, and was then discharged very much improved in every respect.

rather than irregular, rapid, and, as it were, explosive, as is the case with the convulsions of epilepsy.

The most important feature was the state of the consciousness, and by this chiefly we were enabled to decide against the epileptic nature of the case.

In epilepsy, complete coma, with total loss of consciousness, forms an essential and specific character. Convulsions form no necessary part of the epileptic paroxysm. There may be in epilepsy a complete absence of convulsions, but the insensibility is invariably present. Thus we often meet with instances in which there is sudden and even momentary loss of consciousness, without any convulsion whatever. Such cases are not less truly examples of the epileptic paroxysm, than if the most violent convulsions were also present. Attacks of this non-convulsive kind constitute what the French call *petit mal:* but, in many instances, it is rather the *grand mal*, for the brain and the intellectual powers suffer much more after repeated attacks of this nature than after fits in which the convulsive movements formed the prominent feature of the disease.

In the case before us, however, we had no complete loss of consciousness; there was, undoubtedly, an affection of consciousness, that in which a person may be insensible to all ordinary external stimuli, and quite without any perception of anything going on around her, but at the same time she was aware of the altered state of her mental powers. But in epilepsy the patient knows nothing of his mental state during the paroxysm—he is only conscious of his state before and after it—and the period of the fit is to him as if it had never existed.

The nature of the movements showed that consciousness was not wholly in abeyance; they exhibited a co-ordination and a regularity which we never observe where there is complete loss of consciousness. She bent her fingers in a steady regular manner, as if the muscles were obeying the mandates of her will, and her body was contorted by a combined movement, forming a striking contrast with the jerking movements which we see in a state of insensibility. I say, then, that in this and in other cases of a similar nature we have no complete loss of consciousness; the apparent insensibility depends upon an intense concentration of the attention on one particular object. I may illustrate what I mean in this way. We all know that when the mind is very much interested and occupied with any particular subject or train of thought, one is very apt to take no notice of occurrences which are taking place close to, or in immediate connexion with, one's person; one is frequently unconscious of noises, nay, we may even suffer a moderately severe pinch without being sufficiently roused from our reverie to enable us to direct our attention to any but the one object with which we are engaged; in fact the mind is fixed on one object to the complete exclusion of everything else for the time.

The state of consciousness into which patients of this class fall is of this kind, although very different in degree. What is commonly called "absence of mind" is an analogous affection of consciousness. Attacks of this kind are generally brought on by some powerful mental emotion—grief, anger, jealousy—which overwhelms and suspends all other intellectual operations while its influence lasts.

Then, if the disease were not trismus, nor tetanus, nor epilepsy, what was it? All the symptoms and the history of the case combine to show that it was an example of a highly developed hysterical paroxysm or fit, or, more exactly, of that peculiar form of aggravated hysteria, which is called *catalepsy*.

The history of the case, which has been collected and recorded by my clinical clerk, Mr. Maurice Davies, shows that our patient was a highly excitable hysterical person, who has been subjected to moral, and perhaps physical influences also, well calculated to keep up that state. She tells us that she enjoyed good health until she reached the age of ten, when she experienced a sudden fright, and fell, in a fit, two storeys down a well staircase; from that time to the time of her marriage (at the age of 15) she had the fits uninterruptedly, generally twice a week, and sometimes oftener. Since her marriage she has had the fits less frequently, but has never been entirely free from them.

It is difficult to determine what was the precise nature of these fits, whether they were epileptic or hysterical. Her age was more favourable to the former; but the subsequent history, and the fact elicited from her, that she was advised to marry in order to get rid of the fits, rather indicate that they were of the hysterical kind. At the same time, it is very unusual for a girl of ten years old to exhibit any symptoms of hysteria. We rarely find any manifestation of the hysterical condition until after the appearance of the catamenia. She was persuaded to marry at the age of fifteen, and, as she had no great affection for her husband, domestic squabbles occurred very soon after their union, and in some of these disagreements her husband used violence, and in consequence she had a return of the fits. At last they agreed to separate, but circumstances obliged them to have occasional interviews, and of necessity scenes of violence were repeated on each occasion. It was at one of these rencontres that the present attack commenced. The influence of moral causes in inducing the attacks is very manifest in this history. Ever since fifteen years of age, she stated that the slightest excitement would bring on a paroxysm. She is evidently a woman of strong passions and violent temper, and possibly her partner was as much "sinned against as sinning." She exhibited features of the same hysterical cast as in the case of Harriet B., with which I commenced the lecture, and many of the same peculiarities of the hysterical constitution.

There is a curious family history in this case. Her paternal grandfather and paternal uncle had fits, and she was the mother of nine children, eight of whom died, seven of them in convulsions!

And now let me refer briefly to treatment. I would just remark here that the same general principles of treatment are applicable whether the affection be chiefly manifested in a particular part of the body, as in the case of Harriet B., or whether it affects the system generally, as in the case of Amelia D.

Before, however, we discuss the treatment, we must endeavour to form some notion of the nature of hysteria. What is this hysterical condition? To answer this question properly would, I fear, occupy me too long, but I may tell you what it is not, by which you may be guided in your practice, and be enabled to meet the disease by the proper treatment. Now, in the first place, hysteria does not result from inflammation. It is not a disease of an inflammatory type, and no part of the system whatever is in a state of inflammation. Hysteria, no doubt, occurs chiefly in persons who have a peculiar character of nervous system; very often inherited from nervous or gouty parents. It depends partly upon this original conformation of nervous system, and partly upon a depraved state of general nutrition affecting the whole system, and accompanied by a morbid state of the blood. It is always very much influenced by a disordered condition of some of the great emunctories of the body. Hence we must take care that the powers of the patient are not in any way diminished by the treatment to which she is subjected, or by the occurrence of any fluxes from any part of the body which may tend to lower her strength. We must also be careful not to overlook any derangement of the digestive organs; we must uphold the strength, and endeavour to improve the patient's health in every way that comes within her powers of digestion.

When you meet with a case like the present, in which a violent paroxysm occurs, what are you to do? Are you to look on and do nothing? The friends will anxiously inquire if nothing can be done to relieve the patient. I confess that I cannot tell you of any means which will cut short the paroxysm, but at the same time you may try certain means to alleviate it. Rousing the patient is often of use—shaking her or throwing cold water in her face, or well splashing her with water is of more use. After she has come to, you should get the bowels to act freely. Means of this kind were freely used in the case of Amelia D——, and an enema containing half an ounce of spirits of turpentine and an ounce of tincture of assafœtida was administered. She took likewise for a short time, twenty minims of the fetid spirit of ammonia, and ten minims of tincture of hyoscyamus in camphor mixture every third hour.

If the patient has been indulging too freely in spirit (as is often the case with persons brought into the hospital) the stomach pump will be of great service. It rarely happens that taking blood or other antiphlogistic treatment can be called for.

The patient, Amelia D——, recovered in three or four hours from her fits, and slept the rest of the night. Next morning she was perfectly tranquil, and could not be prevailed on to remain in the hospital.

CLINICAL LECTURE

ON THE OBLITERATION OF VARICOSE VEINS, AND THE SOURCES OF DANGER INVOLVED IN THAT OPERATION.

DELIVERED AT

King's College Hospital.

By HENRY LEE, F.R.C.S.

GENTLEMEN,—On Monday last I drew your attention to the mode of operating for the obliteration of varicose veins, and to the sources of danger involved in that operation. I explained to you that the operation which I performed consisted of two parts, viz., 1st., that of introducing a needle under the trunk of the vein to be obliterated, and leaving it there for a few days; 2ndly, at the expiration of that time, when the blood on either side of the needle had become coagulated, the operation was completed by dividing the vein by a subcutaneous incision. This latter part of the operation I have now performed.

I would now explain to you a little more at length the reasons which induce me to adopt this mode of operating, and also, as immediately connected with the same subject, I will consider the effects produced upon the system by the decomposed contents of a vein when accidentally received into the circulation. This latter subject is far from being as yet fully understood. But it is one the importance of which is gradually becoming more and more acknowledged, and the facts that we do know concerning it are so full of interest, that they must commend themselves to the attention of all who wish their knowledge of surgery, and its effects, to extend below the surface of the body.

When a needle is placed under a vein, and a twisted suture applied around its extremities, the vein is in much the same condition as if a ligature were applied to it; and we may judge of the process that takes place in the human subject by that which happens when a ligature is applied to a vein in an animal. When this is done in a horse, the first effect is the stagnation of the blood on each side of the obstruction. The stagnant blood generally congulates, if the ligature be allowed to remain, during the first twenty-four hours. We have then the vein compressed at one point, and a clot of blood between the ligature and the next communicating branch on each side. But the coagulum is apt to extend much further upon the distal side than upon the side next the heart, because the vessels which supply the tied vein, not being able to empty themselves, are liable also to become distended with coagulated blood. For this reason, it sometimes happens that a long coagulum is formed in the distal portion of the vein, filling it to distension, while the portion next the heart is perfectly empty and collapsed.

A ligature upon a vein does not divide its internal coat, either in man or animals, as happens when an artery is tied. At most some superficial abrasion is produced of the internal tunic. The coats of a vein are by a ligature drawn into longitudinal folds, and a visible line of indentation is produced. The coagulum of blood formed within the vessel moulds itself completely to the shape of the vessel in which it is contained, and bears the marks of the longitudinal folds of the lining membrane, and of its semilunar valves. This inherent power of the blood accurately to adapt itself to every inequality, and completely to close the vessel, is a very remarkable quality. It is one of the living processes accomplished by the blood which we can trace, and by which we are prepared to understand, other more subtle operations in the animal economy which are more hidden from our observation.

The first effect of the formation of such a coagulum is to prevent any hæmorrhage, in case the vessel should be subsequently divided by ulceration or by other means. It also serves the very important office of preventing any fluids from passing along the canal of the vessel, which might prove prejudicial to the system. But a coagulum of this sort is not to be regarded in its mechanical relations alone. It is not a simple plug of foreign matter; it is still a part of the living being, and capable of undergoing many and most important living changes. Some of these are engendered within the confined blood itself, while others are common to it and the surrounding parts. It has, I am aware, been the custom to consider coagulated blood as no longer a part of the living being. Some physiologists have regarded the coagulation of the blood as the act of death; others have looked upon it as the last act of life. Both these ideas have evidently arisen from the action having constantly been observed out of the body, where undoubtedly the separated portion of blood does die. But when we consider, that the conversion of blood into muscle, in the ordinary process of nutrition, is but a modified act of coagulation, it will readily be admitted that the coagulation of a portion of blood by no means necessarily involves its death. In the experiments which Hunter performed of transplanting one portion of an animal (as a tooth or a testicle, for example) into another living being, he had a much higher object in view than the gratification of his curiosity. Although he doubtless was interested and amused to see the tooth of a man growing from the comb of a cock, yet he saw more than this. He saw in it the great principle, that every part of an organised structure is endowed with its own life, and, although incapable of continued separate and independent existence, he inferred that each separate part might live for a certain time; that, in the case of the tooth, for instance, it would retain its vitality when separated from the rest of the body, until it had formed fresh connexions in its new situation. Now, these principles, (extending as they do to every part of the animal system,) you will at once perceive, are applicable to our present subject. The blood alone forms no exception to the general rule. It may for a time retain its vitality, whether in a solid or a fluid form, when separated from the circulating mass. But as it may live and undergo further changes in harmony with the well-being of the part and of the system, so may it die, or become subject to certain morbid actions, and thus be a source of danger to both. We have here, then, two distinct classes of cases; one, in which the separated blood undergoes changes which issue in the reparation of the injury inflicted upon the vein; the other, in which, from some defect in the system, or from some vice in the composition of the blood, the natural and healthy process of repair is not carried out. It will be my endeavour, if time permit, to trace very briefly both these actions (the healthy and the unhealthy) through some of their more ordinary forms. After a portion of the blood has become separated and coagulated, it adheres to the surfaces with which it happens at the time to be in contact. The adhesion thus formed is at first very slight, but it gradually becomes much firmer. The coagulum itself is sometimes solid throughout; at other times it is less consistent and broken; but it always fills the cylinder of the vein. After a ligature has been applied to the jugular vein of a horse, for the first five days there is no blush upon its lining membrane. No signs of adhesive inflammation,—that is, of lymph secreted from inflamed vessels,—can in any part be observed in the interior of the vein. Up to this period, there is no thickening of the proper coats of the vein, and no agglutination of the contiguous folds of membrane. The situation of the ligature is simply marked by a dense white line. But the cellular structure around is thickened by the deposit of lymph. If two ligatures be applied, and the vein divided between them, the cut edges will recede for about an inch; but the process which goes on in the interior of the vein will not materially vary from that above described. At the expiration of a week, a layer of lymph is effused around the ligature, enfolding it in a kind of sheath. After this, ulceration of the coats of the vein commences, and, if the ligature is allowed to remain, continues till the coats of the vein are completely divided. The ulcerated edges at this time adhere firmly to the surrounding cellular sheath, which is thickened by a deposit of lymph. The calibre of the vein at this time has not undergone any diminution or contraction; so that it may happen, that after a ligature has traversed a vein, and the coagulum which it contained has been dissolved or absorbed, the circulation through it may be completely re-established, the ulcerated sides of the vein being represented by the condensed and thickened cellular sheath.

You will now perceive one object which I had in view in dividing the vein by a subcutaneous incision in the patient who has just left, instead of allowing the needles to ulcerate their way out. By such an operation the vein is allowed at once to retract. A pad being then applied, the surrounding areolar tissue is made to occupy the place of the vein, and,

uniting there by adhesive inflammation, it prevents the venous channel from becoming re-established.

During the time that the changes which I have attempted to describe are going on in the coats of the vein, other important actions may be going on in its contents. It is necessary, however, to remark, that these changes occur more readily in smaller than in larger animals, and the time required for the coats of the vein to become ulcerated through, is less in the human subject than in the horse, where we have the best opportunities of observing the different stages of this process.

When the blood has become stagnant in an obstructed vein, if its coagulating power be unimpaired, it will occasionally happen that the whole of the blood will form a solid mass. This will adhere to the sides of the vein, and completely obstruct its canal.

At other times, the outer layer of blood alone will form itself into a kind of membrane, which will adhere and become incorporated with the sides of the vein. It will occasionally happen under these circumstances, that the blood in the centre will remain fluid, or will be very loosely coagulated. The less consistent portions may then be removed, and carried in the course of the circulation, leaving a cylinder of fibrine coating the vein, through which the circulation of the part may be re-established. Now, all these actions may, and do go on without any signs of inflammation, and without any constitutional disturbance. The changes are produced in the fibrine of the blood, which forms a bond of union between the opposed sides of the vein, and obliterates its canal. This obliteration may be temporary or permanent; but, in either case, the material used is derived from the blood itself, and is not the product of inflammation. Thus the canal of a vein may be obstructed by a coagulum; that coagulum may become partially organised or absorbed, or its constituents may be dissolved and carried in the course of the circulation, without any preternatural excitement in the part, or in the system at large. The whole process is conducted without any sign of inflammation, properly so called, and without any unnatural appearance of vascularity of the lining membrane of the vein.

Provided the blood be in a healthy condition, and unmixed with any morbid secretion, the veins consequently may be cut, bruised, or lacerated without any evil consequences. Healthy reparation is produced first by the temporary obstruction of the veins, and then by the removal of that obstruction in one of the ways above-mentioned.

But it will sometimes happen through some morbid condition of the blood itself, or in consequence of the introduction of some vitiated secretions into it, that an unhealthy action is set up. Any morbid matter generated or introduced into the cavity of a vein, has no means of escaping through its dense parietes, and the inflammation and irritation which may then be set up is as great as any that can be produced in any part of the living body. Let me illustrate this in reference to the case upon which I have just operated. Let us suppose that, instead of a healthy coagulum of blood, the contents of the vein had become mixed with some purulent secretion of the part, or that a portion of the fibrine confined within the vein had undergone some degree of decomposition, the healthy and natural actions of the parts would then immediately be disturbed, the skin would become red, the cellular tissue distended, and the whole track of the vein extremely painful. At the same time there would be great constitutional irritation, the pulse and respiration would become excited, and there would be other symptoms of fever, the character of which would vary according to the local changes which took place in the obstructed vein.

The first question which we naturally ask under such circumstances is, supposing there to be some unnatural fluid in the vein, how is that to be got rid of? If there be an external opening in the vein, it may escape in that way; and this is what happens when a wound made in bleeding opens again, and allows the grumous dark-coloured contents of the vein to escape. But it often happens that morbid matter may be retained in a vein where there is no external opening by which it can escape. It is natural to suppose, that, under such circumstances, it would find its way along the channel of the vein into the general circulation; and this, in reality, occasionally happens, and doubtless affords an explanation of the sudden, severe, and even fatal symptoms which have sometimes followed an apparently trifling operation on a vein. It is for the purpose of avoiding any such accident that I have adopted the plan of operating which I have described. I have thereby the means of ascertaining, before any opening is made in the vein, whether the blood has its natural power of coagulating, and whether the channel of the vessel is closed. If this be the case, a portion of fibrine may decompose in a vein, or purulent secretions may be introduced into it, and only a local irritation will be produced, unattended with any serious symptoms. But should the canal of the vein not be closed, and these same morbid products find their way through it into the general circulation, the most alarming symptoms will result. Some fifty or sixty years ago, when the operation of tying varicose veins without any previous preparation was in vogue, it occurred to Sir E. Home to have a private patient on whom he performed the operation of tying the saphena vein. Symptoms of typhoid fever set in, and terminated fatally in two or three days. About the same time, two other cases occurred in St. George's Hospital, where, after the operation of tying the saphena vein, similar symptoms manifested themselves, and the patients narrowly escaped with their lives.

Sir B. Brodie, upon whose authority these cases are given, not being satisfied with an operation which was occasionally followed by such consequences, suggested a modification of it. He introduced a very thin knife under the skin, and divided the vein by subcutaneous section. This operation, for a time, appeared to answer; but a case at length happened in which the patient died four days after the operation. After this, so great was the fear of wounding the saphena vein, that no surgeon in London ventured to perform the operation for several years. Indeed, up to the present time, something like a superstitious dread is entertained generally respecting the ligature of veins, without, however, any distinct ideas having been given as to the real source of danger in such cases.

In pursuing some investigations relative to this subject, I was induced to believe that the decomposed and putrid fibrine of the blood was the real cause of the very serious symptoms in these cases; but, being at a loss to know what the effects of putrid fibrine were upon the animal system, and having been able to obtain no information upon this subject from any published work that I was acquainted with, I determined to try what the result of the introduction of such a fluid into the vascular system would be. Accordingly, having obtained the assistance of a veterinary surgeon, and having obtained some fibrine in a very putrid condition, I caused an ounce of the decomposed fluid, mixed with an equal quantity of water, to be injected into the jugular vein of a donkey. The fluid passed without obstruction into the course of the circulation, and in a few moments the animal gave three or four groans expressive of great distress. The vital powers appeared to be suddenly prostrated; the animal lay unable to rise, and soon fell into a state of syncope. This lasted a few minutes. On getting up, the animal reeled and staggered about, but subsequently recovered sufficiently to walk to his stable. Some re-action now commenced; the breathing was disturbed, short, and quick; the pulse, which naturally beats about 36 in the minute, rose to 120. These symptoms continued about an hour and a half. After this, the animal became very restless and uneasy, and evinced internal pain by groaning and looking at his side. The animal died four hours after the operation. On a *post-mortem* examination, the jugular vein, into which the decomposed fluid had been injected, was found in its natural condition, and partially distended with fluid blood. It was pervious throughout its whole length, and contained no coagula. The lungs were found studded with irregularly-circumscribed soft black patches. When cut into, these discharged a blackish fluid, having the appearance of a mixture of blood and ink, and of a strong putrid smell. The cœcum and colon, and a portion of the small intestines, were deeply congested, and of a dark livid colour.

In this instance, the decomposed fibrine evidently acted as a most virulent poison upon the system. In fact, there are few animal poisons known which would produce such serious effects in the same space of time. But it will be asked, if such serious effects follow the introduction of putrid fibrine into the circulating system, how is it that these results are not oftener manifested, seeing that the blood must constantly be liable to its influence? This must constantly happen in cases of sloughing wounds, and in cases of abscesses in the course of inflamed veins.

In healthy states of the constitution, the system is pre-

served by a very wonderful provision, and one which could not have been anticipated, I presume, by any process of reasoning. The blood has itself the power of fixing some morbid matters that come in contact with it, and, by entering into a kind of combination with the first particles that present themselves, it effectually seals the vessels against the entrance of any further portions. It is indeed generally conceived, that putrid fluids mixing with the blood prevent its coagulation; and this I believe to be generally true. But the effect of slightly decomposed fibrine upon the blood offers a marked and very peculiar exception to this rule. The blood in the living being is, as I have said, peculiarly liable to the influence of putrid fibrine; and it is in perfect accordance with the usual economy of nature to find the sensibilities of a part actively alive to those influences which are calculated to affect it injuriously. Now, the sensibilities of the blood for its self-preservation will be found, upon examination, to be as evident as those of other parts of the body, and to be called into operation in an especial manner with regard to the action of putrid fibrine.

The following experiments will show how readily the presence of such decomposed fibrine is felt by the living blood, and will also illustrate the means employed for the preservation of the system from its injurious and poisonous influence. Having obtained some fibrine quite firm and free from any colouring matter, I allowed it to decompose till it became fluid. A small quantity of this was mixed with some recently drawn blood, and in less than two minutes the mixture had formed a uniform soft coagulum. This experiment was repeated upon some blood drawn from a healthy horse, with a similar result. Now, these experiments show that the action of putrid fibrine upon the blood is similar to that of pus. If pus be mixed with recently drawn blood, it will have the effect of coagulating it in about two minutes; but if injected into a vein, the coagulation will take place almost immediately. This is known by the thickened and cord-like feeling of the vein, and by the circulation through it being obstructed. It is evident that the effect of such an action must be to prevent the morbid matter from passing into the circulation. The putrid fibrine or the pus unites with the first portions of blood with which they come in contact. They form with it a coagulum, which adheres to the sides of the vessel in which it is contained, and effectually seals it against the entrance of any further portions of morbid matter. The irritating substance is thus fixed and localised to that portion of the vascular system, where it is first formed; and, although it may produce a considerable amount of irritation and suppuration here, yet, if the coagula formed be sufficiently firm, the system will be preserved. A local inflammation alone will be produced, and the poisonous effects of the morbid matter will not be felt by the constitution. A practical illustration is here presented of a principle long and perseveringly advocated by Dr. Wilson, of St. George's Hospital, namely, that the coagulation of the blood out of the body is only a feeble expression of its much more energetic action in the living system. The one act of its changing its form when withdrawn from the body, is the last expression of that wonderful power, by which, while in the body, it is constantly changing its form from the fluid to the solid, and from the solid to the fluid, in the various processes of growth, nutrition, and decay. It was the consideration of this power, as evinced in the preservation of the system from the effects of the circulation of purulent fluids, that led me to adopt the plan of ascertaining that the vein was obstructed before dividing it in the operation for varicose veins. As nature adopted this plan of preventing the absorption of vitiated fluids when formed, it appeared to me, that increased security would be given, if it were ascertained that a firm coagulum obstructed the vein before its coats were injured. This is effected by the simple expedient of keeping the blood at rest for a certain time in a vein; and by the mode now adopted, we have the great advantage of insuring that the coagulum is composed of blood alone, and not blood in combination with pus or other vitiated fluid. This may be a point of considerable importance, for a time comes when the portions of the coagulum are dissolved and carried in the course of the circulation. If formed from healthy blood, this process is attended with no constitutional disturbance; but if the coagula have been partly composed of vitiated fluids, a train of symptoms may be induced which exercise most important influences upon the system.

If the quantity of vitiated fluid mixing with the blood be large, or if it be in an advanced stage of decomposition, the coagulum by which it is retained may be very loosely formed. The central portions will then become softened down, more or less deprived of their colouring matter, and converted into a fluid resembling pus. As the process of softening proceeds, the coagulum which first formed becomes gradually of less consistence, and at length the vitiated fluid contained in its centre escapes, and is poured into some of the adjacent veins. It here determines, under ordinary circumstances, one of the three following physical results.

First. The dissolved matter, which has often the appearance of pus, mixing with fresh portions of blood, may determine the formation of fresh coagula. These may retain the vitiated fluid, and, adhering at intervals to the sides of the vein, they may for a time prevent any of the morbid matter from reaching the general circulation. Within a short period, however, the centres of the newly-formed coagula will become softened and gradually deprived of their colouring matter. The process of softening will proceed from the centre towards the circumference of each portion, until the greater part, or the whole, is converted into a thick fluid, resembling pus. This fluid it is which has been so often mistaken for pus in the veins.

Secondly. The blood that has been infected, instead of coagulating, may separate into its different elements. The fibrine in this case separates from the rest, and, allowing the serum and colouring matter of the blood to pass on, may adhere to any part of the vascular system with which it comes in contact. The vessel in which the adherent fibrine is contained is not completely obstructed, as happens when the blood coagulates in a vein. The difference is this, that in one case the fibrine alone of the blood is detained, and in the other all the parts of the blood are contained in the clot. In the first case, the circulation can be still carried on between the fibrinous deposit and the opposite side of the vein; in the second, the calibre of the vessel is completely obstructed. An instance of this form of contaminated blood presented itself a short time ago in this hospital in an old man who had a large tumour removed from the back part of the arm. A few days after the operation, he was attacked with erysipelas, which terminated in mortification of the part and death. In that case I had an opportunity of pointing out to those gentlemen who witnessed the *post-mortem* examination, that the axillary vein and its branches were about half filled with firm portions of decolorised fibrine, which had evidently formed before death, and by the side of which the circulation of the limb had for a time been maintained. In this instance the blood in the immediate neighbourhood of the wound was of a very black colour, and quite fluid.

Another remarkable instance of this form of diseased blood came under my care in the hospital during Mr. Fergusson's absence in September last. A man, aged 37, was admitted, having six months previously fractured his patella; after which, although he was enabled to walk, he always experienced a sense of stiffness in the joint. On September 17, he was attacked at two o'clock in the morning with a succession of rigors, which continued until the middle of that day. An abscess subsequently formed in the knee-joint, and the cellular tissue between the muscles of the leg and thigh were extensively infiltrated with pus. The shiverings were repeated on several days after his admission into the hospital, and were followed by most profuse and exhausting perspirations. He died on the 16th of October. On a *post-mortem* examination the patella was found to be softened in its interior; one part of its posterior surface was rough and carious, and lying in contact with this exposed surface was a small detached portion of dead bone. The profunda vein was found to be filled with coagula, but the superficial femoral contained only a small quantity of fluid blood. At the junction of the two (and this is the point to which I wish particularly to direct your attention) was a considerable mass of white adherent fibrine. This was easily removed from the lining membrane of the vein, which then presented its natural polished appearance. No signs of inflammation of the lining membrane could be discovered. The portion of decolorised fibrine to which I have referred was removed from the vein, and when pressed between the fingers a small quantity of white purulent-looking matter escaped from its interior. At the lower part of the right lung were several small oval deposits of white matter, as firm in consistence as ordinary tubercle. In other parts of the same lobe were larger indurated masses, containing in their centres discoloured purulent-looking fluid. The point

of the greatest interest in this case is, that, upon a microscopical examination, the appearances of the white fluid from the clot in the vein accurately resembled that from the secondary deposits in the lung. We therefore naturally come to the conclusion, that, in both these situations, the purulent-looking fluid was formed in the same way, and that the same action which produced its development in the fibrine after it had travelled from the seat of injury to the termination of the profunda vein, produced its developments in the lung, at a still greater distance from the original source of mischief.

The third physical change that may take place in contaminated blood is, that it may decompose: instead of coagulating or of separating into its different elements it may become putrid in the vessels of the body. The whole of the constituents of the blood are then involved in the changes which take place. Fortunately, we have few examples of this disease in the London hospitals at present; but during the prevalence of severe epidemics they are not so very uncommon. In the severer forms of puerperal fever especially, the whole mass of the blood appears to be contaminated, and, wherever it stagnates, it shows a tendency to decompose. Any organ attacked in this state of the system will pass most rapidly into a state of gangrene. In a single day an organ may become attacked, its structure softened and broken down, and it will then present the characters of a putrid abscess.

Not long ago I had the opportunity of examining a case of a woman who miscarried during the sixth month of her pregnancy. A few days afterwards, she was attacked with intense pain in the abdomen, and, two or three days later, with pain in the calf of the left leg. The pain in the leg was accompanied by swelling, which afterwards extended up the thigh. She died shortly after the attack. Upon examining the body after death, a small putrid abscess occupied the course of one of the branches of the hypogastric vein, at a short distance from the neck of the uterus; the iliac and femoral veins of the same side were filled with blood in every stage of decomposition; the spermatic vein of the same side was stained of a dark purple colour, but its canal was pervious, and contained no coagula.

The remarks which I have now made have reference to contaminated blood generally whenever the morbid matter is derived from purulent secretions or from putrid fibrine. The examples are now rare in which these forms of blood disease present themselves after injury to the superficial veins of the body; but formerly, when bleeding was more practised than it is at present, cases of the kind were not very uncommon. In the operation of obliterating varicose veins, no example of any severe disease has presented itself hitherto in this hospital; but, as fatal cases do occasionally occur, it is well to take every precaution. In the operation which I have recommended, all the usual sources of danger are, I believe, guarded against. We have the means of ascertaining before the vein itself is injured, that its cavity is obliterated; and we may judge of the firmness of the coagula which it contains. Should the coagulum of blood not form in any case after the introduction of the needles below the vein, in such an instance I certainly should decline to proceed with the operation. I should consider that, from some cause or other, the coagulating power of the blood was deficient, and that there was no security that any morbid matter which might accidentally be formed in the part would not be conveyed along the channel of the vein into the general circulation.

It might at first appear an objection to this mode of operating, that it required a longer time than if the operation could be performed at once; but this is not the case. I have here the notes of a case which I recently treated in this way. A woman was admitted into this hospital on the 29th of September last, with a large cluster of veins on the inner side of the right leg, and one very large vein extending up the inner side of the thigh.

On the 2nd of October, a needle was introduced behind the cluster of veins in the leg, and also behind the enlarged vein in the thigh.

On the 5th, the needles were removed, and the veins divided by subcutaneous incision.

On the 9th, she was enabled to leave her bed; and on the 17th she left the hospital.

ORIGINAL COMMUNICATIONS.

ILLUSTRATIONS OF CLINICAL MEDICINE AND PATHOLOGY.

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(Continued from page 586, Vol. V.)

AFFECTIONS OF THE BRONCHIAL MUCOUS MEMBRANE IN CHRONIC RENAL DISEASE.

In the course of chronic disease of the kidneys, the several great mucous and serous membranes are exceedingly prone to become seriously affected. The affection of the mucous membranes is manifested in various disturbances of their ordinary functions, and occasionally in an inflammatory process of a more or less severe and protracted kind, attended usually with a copious discharge from their surface. The affection of the serous membranes consists chiefly in the accumulation of fluid within their cavity, and occasionally in a low but often fatal inflammatory process. There seems to be sufficient reason for believing that the affections of the mucous and serous membranes, as well as many other secondary complications occurring in the course of chronic renal disease are due, in great measure, to the disordered state of the blood which the structural affection of the kidneys engenders; for in nearly all confirmed cases of renal disease the respiratory and gastro-intestinal mucous membranes present signs of being more or less disordered, and the tendency to effusions and inflammations within the different serous cavities is more or less strikingly manifested. The affection of the respiratory mucous membrane is shown in the almost habitual catarrh to which the victims of renal disease are subject; that of the alimentary mucous membrane in the nausea, vomiting, and disordered bowels so common in this disease; and, when the disorder of either of these great mucous membranes runs on to inflammation, the profuse discharge which in such case often takes place from the affected surface may with reason be considered to result from a natural effort to remove in this way from the system certain injurious materials which, in consequence of the disease of a great excreting organ, have accumulated within the blood. For, although the mere process of discharge may be productive of serious distress and debility, yet it not unfrequently happens that, after such free secretion from a mucous surface, the dropsical effusion which previously existed becomes greatly diminished, and various cerebral and other symptoms, indicative of the circulation of urea in the blood, subside or are removed. And it seems likely enough that the relief in such cases is due to the elimination of some of the morbid materials of the blood along the mucous surface from which the free discharge has taken place. The probable correctness of such an opinion is supported by the almost constant disorder of the gastro-intestinal mucous membrane, manifested in nausea, and vomiting, and profuse diarrhœa, which ensues when, from accident or experiment, any noxious organic materials are received into the blood. Examples of this occur after the absorption of foul gases, or the injection of putrid matters into the blood-vessels of animals, also in puerperal fever with uterine phlebitis, and in the typhoid or extreme hectic condition when gangrene is going on. That the affection of the mucous surfaces in chronic renal disease is dependent on the permanently-abiding disorder of the blood, and not on a mere temporary or accidental cause occurring in the course of the disease, is made probable, too, by the very obstinate and protracted nature of the mucous affection, by its liability to relapse independent of ordinary exciting causes, and by its frequent persistence in a chronic form long after the violence of its first attack has been subdued. Chronic catarrh and chronic diarrhœa, with occasional vomiting, are noted among the most common and troublesome of the secondary affections of renal disease, and their obstinacy and intractableness are probably in great measure due to the fact, that the cause which gave rise to them is of a permanent and not a transitory

kind, and dependent on a general morbid condition of the blood, and not on any circumstance acting only locally and temporarily on the affected membrane.

The constant discharges which in some cases take place from the bronchial and intestinal mucous surfaces, do not usually leave any structural changes discoverable in these membranes after death, but occasionally, as in *Case* 6 (*Medical Times and Gazette*, Vol. V., p. 377), there is distinct evidence of ulceration of the intestinal mucous membrane, usually of a dysenteric kind, and affecting the large intestine. It may admit of question whether the dysenteric ulceration in such cases is a mere accidental complication, independent of the primary disease of the kidneys, or, as seems more probable, results from the direct irritation of an unusual and probably acrid secretion continually eliminated from the affected surface.

It is not common for both of the great mucous membranes to be simultaneously affected to any considerable extent in renal disease; for although each of them is usually somewhat disordered, yet, generally speaking, the principal mischief is limited to one, and rarely leaves it to attack the other. Thus, when the brunt of the affection falls upon the bronchial mucous membrane, it is unusual for it to leave this surface and attack that of the alimentary canal; and the same persistence of the affection in the membrane first attacked is observed when the alimentary mucous tract is the main seat of the secondary affection. When either mucous membrane is seriously affected, and free discharge takes place from its surface, it usually happens that the tendency of the disease to kill by dropsy or cerebral disorder is kept in abeyance, though death not unfrequently arrives in consequence of the prolonged distress and exhaustion resulting from the perpetual drain from the affected mucous surface and the attendant disorder of its own proper function as a respiratory or alimentary organ. It may be observed, too, that affections of the mucous membranes, especially of the respiratory tract, are not limited to any particular stage of the disease, being as common in a first attack of febrile dropsy, or dropsy after scarlet fever, as when the disease is thoroughly confirmed, or advanced to its last stages.

A few examples will now be given in illustration of the more serious affections to which the principal mucous and serous surfaces are liable in chronic diseases of the kidney, speaking first of the mucous surfaces.

As illustrating the affection of the respiratory mucous surface in renal disease, the following case is selected both because it furnishes a good example of the subject under consideration, and, having been recently under observation, is therefore likely to be more instructive.

Case 9.—Mary Bromley, aged 52, admitted under the care of Dr. Burrows, September 30, 1852. Face pallid, and rather puffy; trunk and lower limbs anasarcous; skin dry and harsh; tongue moist, furred on the dorsum; bowels act regularly; urine not deficient in quantity, sp. gr. 1015, rather largely albuminous; complains chiefly of pain in the lower part of the abdomen and across the loins. No abnormal sounds about the heart. A washerwoman, married, of temperate habits, and good general health. Eight weeks previous to admission into the hospital, after being one day engaged for many hours at the wash-tub, she noticed in the evening that her legs were swollen, and at the same time she had much palpitation and felt generally ill. She at once became an out-patient at the hospital, and continued to attend until her admission, though the dropsy gradually increased, and her urine during the time of her attendance was always scanty.

The case was clearly one of dropsy and albuminuria of at least eight weeks' standing, and as there were no urgent symptoms, and the time for active treatment had passed by, she was ordered simply a warm bath, with the view of restoring the functions of the dry, harsh skin, and a draught, with acetate of ammonia and camphor mixture thrice a-day.

In two days' time, however, her symptoms rather suddenly got worse: the dropsy became more general; a slight cough, which she had on admission, became frequent and distressing, accompanied with rather copious viscid sputa, mingled with air-bubbles; her breath became short and hurried (50 per minute); her aspect anxious; her face more puffy, and now dusky with lividity; skin hot and dry; pulse 120, small and feeble. On auscultation, too, there were now detected abundant rhonchus and sibilus at the lower part of both lungs behind, especially the left, where there were also a few medium-sized crepitations; the resonance at the lower part of each lung, especially the left, being also impaired.

It being now obvious that an attack of acute bronchitis had supervened on the renal dropsy, a more active course of treatment was called for, though the weakly anæmic state of the patient required that this should be cautiously applied. She was cupped to six ounces below the scapulæ, took two purgative pills, followed by a compound senna draught, and had ten minims of antimonial wine added to each dose of her previous mixture. These measures told most satisfactorily, relieving her breath at once, and giving her a good night's rest, and the next day's note reports her as better. The antimonial draught was continued, and a blister applied to the front of the chest. On the following day, (October 5), with a continued amendment of her symptoms, the skin was noticed to be moist, and she said she had perspired several times. The cough was less troublesome; the sputa more abundant, and consisted of yellowish puriform mucus; the urine was tolerably free, sp. gr. 1015, and albuminous as before. During the next seven days she continued on the same plan of treatment, and seemed to improve, though slowly, the cough remaining very troublesome, together with difficulty of breathing, and tightness across the chest. Still she slept better, took her food pretty well, and there was a gradual diminution of the anasarca, especially from the legs. On the 9th, nearly all dry sounds had vanished from the lungs, being replaced in the lower lobes by more abundant crepitations, while at the base of the left lung behind, the respiratory murmur was very feeble and distant, and the resonance on percussion much impaired, as if some pleuritic effusion was combined with the bronchial affection. Another blister was applied to the chest, and her draught changed to one containing half a drachm of tartrate of potash, and half a drachm of spirits of nitre. On the 12th there was an aggravation of her cough and difficulty of breathing, and tightness across the chest; and the sputa, instead of being abundant, yellow, and puriform, had again become scanty, glairy, and viscid, and mingled with air-bubbles. The skin was hot; pulse, 100; bowels rather confined; urine less copious than for some days (about a pint and a half in the twenty-four hours). On auscultation there was now coarse breathing, with return of sibilus and rhonchus over both lungs; respiration very feeble at lower part of each behind, with impairment of resonance. All the symptoms clearly indicated a fresh accession of bronchial inflammation. The blistered surfaces being still sore, a warm poultice was placed over them, the draught continued, and some Dover's powder ordered, to allay the cough and procure her some rest. On the 13th, there was no improvement. She had been sitting up most of the night, on account of the dyspnœa and cough. Aspect very anxious and distressed; pulse, 120, small. The Dover's powder being again repeated, she got some rest the following night, though still much distressed with her breath. During the next four days she remained in a very imminent state, almost constantly propped up in bed, with a haggard, distressed countenance, breathing hurriedly, and occasionally attacked, especially at night, with severe paroxysms of dyspnœa, which seemed as if about to suffocate her. During these four days she had comparatively little cough, and raised but little phlegm, which was frothy, tenacious, and streaked with blood. By auscultation it was found that scarcely any air passed through the middle third of the left lung behind, and apparently none at all through the lower third, which was quite dull on percussion, the dulness ascending to the middle of the scapular region. At the same time, with this evidence of increased pleuritic effusion, the signs of diffused bronchitis continued in the right lung and the upper third of the left. During this critical period she was treated by repeated blisters to the chest, and with her diuretic draught of nitre and tartrate of potash, to which fifteen minims of ipecacuanha wine were added, while for the nocturnal paroxysms of dyspnœa she was ordered fifteen minims of chloric ether in camphor mixture, from the use of which she derived much relief.

On the night of the 16th she had some good sleep, undisturbed by an attack of dyspnœa, and from this period she began gradually and slowly to recover. The urine, which while under observation at the hospital had never been scanty, now became abundant, though still albuminous; the dropsy almost entirely disappeared; her breathing became easier, but at the same time her cough got more troublesome,

and the sputa more abundant; her appetite returned, and, for the first time since her entrance into the building, she became hopeful of recovery.

The remaining notes of the case record a progressive amendment in the general as well as the physical signs. Auscultcd October 25th, there was found tolerably good breathing, with only occasional rhonchus through the right lung behind, and good resonance on percussion, while, although the respiratory murmur was still almost inaudible over the left lower half, with dulness on perscussion there, the upper half yielded good resonance and good vesicular breathing. A week later on, during which time she had continued her diuretic draught and had another blister to the chest, the deficiency of respiratory murmur was perceived only over the lower third of the left lung, while the cough was much less, the dropsy had quite disappeared, and the urine was much less albuminous, and of specific gravity 1020. She was now placed on meat diet, allowed to get up, and her diuretic draught was changed to one of citrate of potash, containing five grains of the ammonio-citrate of iron. During the next three weeks her convalescence steadily advanced: she lost her cough and regained her strength. Repeated auscultation showed the gradual disappearance of all signs of bronchial inflammation, and return of respiratory murmur to the lower part of the left lung, though even on her discharge at the end of November there was still very feeble breathing at the base of the lung, with impaired resonance on percussion.

The case offers a well-marked example of severe and somewhat protracted bronchitis, ensuing in the course of chronic renal disease, with proneness to relapse, and combined with pleuritic effusion, but gradually yielding to treatment, although on its subsidence the original disease of the kidneys remained still uncured, and will doubtless ere long bring the patient to her grave. It is worthy of note, that while the dyspnœa was so distressing, the cough and expectoration were comparatively slight, while the relief to the symptoms was nearly coincident with a free discharge of mucus from the bronchial tubes. The diuretic property of the soluble salts of potash and of spirits of nitre seemed to be productive of decided good in this case, increasing the secretion of urine, and causing a proportionate diminution in the anasarca, without giving rise to any of the injurious effects which sometimes seem to result from over-stimulating the kidneys in this disease. The advantage of counter-irritation to the skin, with a subsequent free discharge from the cutaneous surface, was clearly exhibited in the decided relief which each application of a blister to the chest afforded; and the comfort to her breathing which the nightly application of a warm linseed-meal poultice to her chest afforded during the time she was distressed with the dyspnœa, should not be lost sight of. It must be mentioned, too, that the chloric ether was of great use in allaying the paroxysms of dyspnœa, and of this the patient herself was so sensible, that, for some nights after their complete subsidence, she could not compose herself to rest unless she felt sure she had one of the ether draughts near in case a paroxysm should ensue in the night.

In the case just narrated, the bronchial inflammation supervened on the renal disease some weeks after the apparent commencement of the latter. But, as already observed, the affection of the mucous or serous surfaces may occur at any stage of the disease. Very frequently an attack of bronchitis arises in advanced and long-standing disease of the kidneys, aggravating the distress already induced by the various secondary disorders entailed by this disease, and occasionally putting the finishing stroke, as it were, to the patient's miseries. The wards and the dead-house of a large hospital equally testify to the truth of this. Not less frequently, perhaps, does bronchitis ensue at the very outset of the renal disorder, commencing almost simultaneously with the anasarca and febrile symptoms by which the attack of febrile or inflammatory dropsy is ushered in, and, combined perhaps with some œdema of the pulmonary tissue, constituting much of the patient's discomfort and anxiety, and explaining the cough, dyspnœa, and tightness in the chest, of which the sufferers from this form of dropsy so generally complain. It is as common, too, in the dropsy after scarlet fever, as in the simple form of acute dropsy; and what may be said of the symptoms and treatment of it in the one will apply almost equally well in the other. Accordingly, the following case of a child occupying the bed next to that of the patient just commented on, and under observation at the same time, with dropsy after scarlet fever, will serve as well as any other for an example of bronchitis in an early stage of renal disease.

Case 10.—Mary Anne Chilvers, aged 7, admitted into Faith front ward, November 15, 1852, under Dr. Burrows. Her face was pale and puffy, and the surface generally had an extremely pallid, waxen, anæmic appearance. The cellular tissue of the trunk and limbs generally were œdematous, and the abdomen somewhat full. The tongue was much furred; pulse 136, small; skin moist. She had frequent cough, and her breathing was much hurried. For a day or two the urine, which was scanty, and passed with the motions, could not be obtained for examination; but, when procured two days after admission, it was found largely albuminous. From the mother it was ascertained, that twenty-five days before admission the child first became ill, and, on the same day, a scarlet rash was observed on its skin. The rash, accompanied with sore throat and feverishness, continued for about a week,—other children in the house being similarly affected; and, on its subsidence, the child remained pretty well for another week, and was carefully kept indoors and free from exposure to cold, because of the mother, who was a respectable, sensible woman, being aware of the tendency of the disease to be followed by dropsy. In spite of these precautions, however, the child's face, at the end of this second week, was observed to be unusually puffy, and presently the rest of the body became swollen. It may be noticed here, that the anasarca after scarlet fever not unfrequently occurs in cases where the utmost care seems to have been taken to guard against exposure to cold after the subsidence of the eruption, and during the period of desquamation of the cuticle. This happens sometimes in the wards of an hospital where a case has been under notice during the febrile attack, and the patient kept carefully in bed for some days after its complete disappearance; yet dropsy, nevertheless, sometimes comes on even under these favourable circumstances. It is from this, with other facts, that the opinion has of late been entertained by many pathologists, that the dropsy in such cases is the result, not of checked cutaneous excretion, but of the direct action of the scarlet fever poison on the tissue of the kidneys.

On auscultingthis child's lungs, the breathing was found tolerably healthy in all parts, except at the lower lobe of the left, where sibilus and abundant large crepitations were heard, while a few similar crepitations existed at the lower part of the right also. Resonance on percussion was everywhere good, except at the lower part of the left, where it was decidedly impaired.

The child was ordered a grain of calomel and four grains of jalap to act on its liver and bowels, a saline diaphoretic draught of acetate of ammonia with ten drops of antimonial wine every six hours, a small blister beneath the left breast, and a warm bath at bed-time.

On the second day after admission there was no improvement in either the general or auscultatory signs. The child had passed a restless night; its breath was tighter, its cough more troublesome, and the anasarca had, if anything, increased. Ten minims of aromatic spirits of ammonia, ten grains of tartrate, and fifteen of bicarbonate of potash were now added to each dose of its mixture, and a grain of calomel ordered each night. In two days more, there being no decided amendment in the symptoms, the diuretic properties of the draught were still further increased by the addition of half a drachm of infusion of digitalis, and the chest was protected by a flannel. From this date (Nov. 18th) the symptoms steadily and rapidly subsided, the breathing became easier, the cough less frequent, and the dropsy diminished, while her appetite improved, the bowels acted regularly, her sleep became tranquil, and her aspect cheerful. Auscultcd on the 22nd, the lungs were found free from all morbid sounds except some scanty crepitations at the base of the left. On the 23d there were scarcely any remains of the dropsy; her diuretic draught was therefore omitted, a little jalap and cream of tartar in a confection ordered every morning, and her diet improved to meat. A week later there was still further amendment, the dropsy having entirely disappeared, and the face begun to assume a natural aspect and with some return of colour. But for the state of the urine and some remaining debility, the child might indeed have been pronounced convalescent at this period. The renal secretion, however, was still mixed with albumen. The quantity of

this ingredient varied from time to time, perhaps on account of the different periods of the day when it was examined(a), though at no time was it very large. Occasionally it was so small, and held in such condition, that neither heat nor nitric acid alone would precipitate it, though when used together these re-agents produced a slight sediment, while one day, the 22nd, the albumen seemed to be entirely absent. On the next examination, however, its presence in small quantity was again detected, and even at the present time (December 23) it still exists in the urine, though in general health the child has quite recovered.

This persistence of an albuminous state of the urine for a considerable time after the complete disappearance of all other symptoms of disease, is not unfrequently observed in the dropsy after scarlet fever, as well as in other forms of febrile dropsy; and it is a point to which attention should be carefully directed in every such case; for so long as the albuminuria remains, the patient cannot be pronounced safe, because he bears with him that morbid condition of his kidneys, which, if not now arrested, may pass on into permanent renal disease.

The foregoing case is chiefly instructive as an example of febrile dropsy in which the secondary disturbances induced by the renal disorder were manifested almost exclusively, though not very severely, on the bronchial mucous membrane: it is instructive, too, as showing, like *Case* 9, the beneficial effects occasionally produced by a combined diuretic and diaphoretic plan of treatment; the increased urinary and cutaneous secretion doubtless ridding the blood of the noxious materials on which most of the secondary disorders probably depend.

In the next paper some examples will be offered in which the stress of the mischief induced by renal disease fell on the gastro-intestinal mucous membrane.

REMARKS ON PROLAPSUS OF THE ANTERIOR WALL OF THE VAGINA,

AS AN OCCASIONAL CAUSE OF FETID, PHOSPHATIC, MUCOUS URINE.

By GOLDING BIRD, A.M., M.D., F.R.S., F.R.C.P.

It is by no means a very unfrequent occurrence for a physician to be consulted by females, (generally about their grand climacteric,) on account of their having great irritability of bladder, and the urine, when passed, being very fetid, and containing much ropy mucus. They generally complain of small quantities of the urine escaping on any sudden change of posture, or after violent coughing, and suffer no little distress from the offensive, fish-like odour which, in spite of every possible precaution, is observed to cling to them. It occurred to me several years ago, to observe that the cause of this state of urine was analogous—in some of the cases, at least—to that which exists in cases of enlarged prostate in the male. I mean a cause preventing the complete emptying of the bladder, and thus inducing the retention of a portion of urine sufficiently long to allow it to undergo decomposition. As no public notice has been taken of these really very distressing cases, I felt that an allusion to them might not be useless, especially as the mode of treatment is simple and successful.

Almost the first case in which I recognised the condition to which I am alluding, occurred about eight years ago in the person of a stout, tolerably healthy-looking woman, who had been the mother of several children, and had ceased to menstruate for three or four years. She complained of great sense of distress in the lower part of the abdomen, with weight and bearing down. Walking was painful to her, and she was almost constantly tortured with a desire to empty the bladder. The urine was very offensive, and contained a large quantity of dense, ropy mucus mixed with phosphates. Suspecting the possible presence of a calculus, I introduced a catheter, but little urine escaped, and no concretion could be felt. But, on examining the vagina, a large pink looking sac depended from its anterior wall, and almost separated the labia. She was indeed suffering from prolapsus of the bladder into a pouch formed in the anterior vaginal wall. By keeping the bladder emptied by the daily use of the catheter, the urine soon recovered its healthy appearance, and the mucus decreased considerably. The decomposition of the secretion in this vesical pouch had evolved ammonia, which had irritated the bladder and caused a copious secretion of mucus, loaded with the earthy salts, from its lining membrane. I sent the patient to my brother, Dr. Frederic Bird, as I believed no permanent cure could be obtained while the prolapsus existed. He applied the actual cautery to the anterior wall of the vagina, and the result was most satisfactory. After the slough came away, sufficient contraction occurred to prevent the formation of the vesical pouch, and the patient remained free from the ailment which had so long distressed her. I have met with so many analogous cases, that I am persuaded of the possibility of tracing a very large proportion of cases of fetid phosphatic mucous urine in the female to the imperfect emptying of the bladder from prolapsus of the anterior vaginal wall. Every one is well aware of the frequency of enlarged prostate as a cause of this state of the urine in the male, and the circumstances to which I have now drawn attention will be found to be as frequent a cause of this state in the female. In more than one instance, I have seen complete prolapsus of the uterus produce a similar result, evidently by drawing the bladder out of its position, and thus interfering with its being perfectly emptied at the will of the patient.

So far as I have seen, the ailment in question is nearly, although not exclusively, confined to females who are called upon for laborious exertion generally too soon after their confinements; or, in other words, to those who are most subject to uterine displacements. Certainly I have met with but very few cases in the higher ranks.

Although this little communication presents no very attractive features, I do feel it deserves a moment's notice, as I have seen many poor women deprived of the means of earning their bread as domestic servants, from the apparent incurability of the ailment. A few months ago, a lady who resides in my neighbourhood, expressed to me her deep regret that she was under the necessity of discharging her cook, a really valuable and trusty servant, on account of the urinous and even fetid odour which exhaled from her person. The poor woman had been out of place for a long time before entering this lady's service, on account of this very ailment. Her kind mistress had already obtained medical advice without any relief. On the patient calling on me with her urine, I found it to be strongly alkaline, exceedingly fetid, and loaded with mucus and phosphates. She never had been married, but had suffered, as she fancied, from prolapsus of the uterus for many years. I found, that, after emptying the bladder by the catheter as completely as possible, the urine secreted and removed, in half an hour was slightly acid, and scarcely fetid. I desired her to call on me early on the following morning, before attempting to pass water; and I then discovered the labia to be separated by a large soft red body, which turned out to be the depending anterior wall of the vagina filled with her prolapsed bladder. The use of an injection of infusion of galls three times a-day into the vagina, the wearing of an abdominal support, with a perinæal pad, and the administration of iron and quina, with dilute phosphoric acid, soon restored her to health and comfort, and enabled her mistress to retain her services.

A nearly identical case occurred in the person of a favourite servant of a lady of rank, who had actually obtained for her the opinion of more than one of our most distinguished surgeons, as she was supposed to be labouring under calculus. She was ultimately completely relieved in a similar manner. But there was a curious fact connected with this case worth mentioning, and which I learned from the mistress, Lady C——. It appears that, after failing to obtain relief from legitimate sources, she had been induced to consult a "wise woman," residing in the village where her lady's country residence was situated. This sibyl told her that she laboured under "sinking of the womb," and that she could cure her. On her next visit, the woman introduced something into the vagina. The operation gave her very considerable pain, but, to her great delight, it certainly diminished the irritability of the bladder and offensive character of the urine. She retained this body for some months, when it fell out; and, on being shown me, I was rather surprised to find that it was a large smooth black siliceous pebble, so common in the beds of brooks and

(a) See an important paper, by Dr. E. A. Parkes, showing the effects of food upon the quantity of albumen in the urine, *Medical Times and Gazette*, April 10, 1852.

shallow streams. Whatever induced the old woman to make her diagnosis, her clumsy substitute for a pessary had afforded no small relief.

I would, then, in conclusion, express a hope that, whenever a female is found to labour under the annoyance and distress accompanying the excretion of fetid mucous phosphatic urine, the state of the uterus and vagina should be carefully examined when the bladder is distended, and I believe the ailment will be often cured by relieving the prolapsed state of that viscus by the means well known to every practitioner.

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CASES OF POLYPUS UTERI COMPLICATED WITH PREGNANCY.

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(Continued from page 641, Vol. V.)

It is well known that the presence of a polypus, whether it be entirely within the uterus or partially lying in the vagina, does not prevent conception from taking place. There is a sufficient number of cases on record to prove clearly the truth of this position; but the following five may be added as corroborative of the fact.

Case 15.—On the evening of Wednesday, March 8th, 1813, I was sent for to a patient at five miles' distance from London, the mother of a family, who had been delivered three weeks, and who had been suffering from hæmorrhage more or less ever since; on that morning the loss had been sufficiently great to cause her to faint. She had taken small doses of ergot without any relief. I found her recovered from the state of faintness; but the uterus was to be felt above the pubes, as large as one at the end of six months of gestation, and was very tender; there was a slight sanguineous discharge then flowing. On examination *per vaginam*, I detected the uterus much larger and heavier than it should have been; the mouth was spread, soft, and so much closed, that it would only admit one finger; but I distinctly felt something within the cavity. Concluding this might be a blighted ovum, which had been retained after the mature fœtus was expelled, I advised, together with the common remedies, a continuance of the ergot in larger quantity: this produced considerable uterine action. She went on with occasional paroxysms of pain, and with very little discharge of blood, till Monday night, when the pains increased very much; and early on Tuesday morning her attendant surgeon was summoned. He then found the os uteri opening, and was satisfied there was a body of some size within the cavity. At two p.m. a fleshy mass protruded, external to the vulva, with much forcing; and on the surgeon being again sent for, he passed his hand into the uterine cavity without much trouble, by the side of the mass, and found it attached to the fundus of the uterus "by something like a funis." He embraced this stem firmly; a strong contraction came on, and expelled his hand and the tumour together, separating it from its connexion with the uterus. It was as large as an ostrich's egg, of a loose fibro-cellular structure, in appearance very similar to the substance of the uterus at full time; not putrid. There is no doubt that it was a polypus, increased in vascularity in the same proportion as the uterine structure itself; but, for so large a tumour, the stem must have been unusually thin, else it would not have broken in the way it did. No hæmorrhage followed the removal of the tumour; and in a week the patient was reported to me as "quite well."

I could not learn that she had suffered from symptoms of polypus before her pregnancy, but no doubt it existed at that time; and the case must be regarded as one in which impregnation took place, although the uterine cavity was partially filled by a solid body.

Case 16.—The following case, in which pregnancy twice occurred under the presence of a polypus uteri, I shall give, as briefly as I can, since it is already recorded more at length by my father, in his "Practical Observations," as well as by myself, in my "Obstetric Medicine." On Sunday, April 1st, 1821, my father's opinion was sought for the wife of a tradesman at Shadwell, who had been safely delivered on the Friday previous, but from whose vagina a fleshy mass, the size of a large pear, had protruded about noon on Saturday. Under the idea that it was a "false conception," some rather forcible attempts had been made to take it away before my father's arrival. The patient had been put to a good deal of pain by these attempts, and she was somewhat exhausted; he contented himself, therefore, with returning the tumour within the vagina; and on his subsequent visits, as he found her progressing favourably, suckling her child satisfactorily, as there was no uterine hæmorrhage, and as she greatly objected to any vaginal examination being made, —fearful, I suppose, that some operation would be attempted, —he felt satisfied for the time about her safety, and did not further interfere. She became pregnant again, and wished to have his assistance at her confinement. She went into labour on January 9th, 1824; and, as he was not at home when he was summoned, I went in his stead. I found the lower part of the pelvis completely filled by a solid tumour, that I had no difficulty in recognising as a polypus; the uterus was acting with much straining; the membranes of the ovum soon broke, and the head of the child forced the polypus external to the vulva before it, its connexion with the uterus still continuing unbroken. The body of the child, as well as the placenta, almost immediately followed; and my father entering the room at the time, it became a question with us whether we should tie a ligature round the stem of the tumour, and cut it off below, since it was lying quite external, and therefore within easy reach,—or whether we should return it, and leave it to be removed after the woman had recovered from the immediate effects of her labour. We thought that, as the uterus diminished in volume, the tumour, as being nourished by the uterine vessels, would also shrink in size, and therefore that its removal would be less formidable at a little distance of time; and besides this, we feared that the double irritation of the attached ligature and inflicted wound might excite inflammation in an organ so prone to take on itself that unhealthy state as is the uterus after delivery. The result justified our expectations. The tumour diminished so greatly in size, that, although it was very nearly as large as an ordinary fœtal head, as we saw it protruded forth between the thighs, in four months, when it was tied, there being no symptoms in the interim to require earlier removal, it was not larger than a walnut divested of its outer husk.

In these two cases a different mode of treatment was adopted, and with equal success in each; in the latter, had the stem been as thin as in the former, the probability is, that it would have been ruptured by the forcible efforts of the uterus propelling the child's head against the tumour before it cleared the os externum; and if the separation had not been effected in that way, it is most likely that we should either have cut or twisted it off. It was the thickness of the stem that mainly deterred us from dividing it.

Case 17.—Mrs. M., who had had children before, was delivered on January 5th, 1845. Her attendant told the nurse, before the placenta passed, that "the womb had come down, and he had put it up again." Three days after, on the action of the bowels produced by an aperient dose, a solid mass appeared external to the vulva, of the size of a large orange; this was returned into the vagina by a neighbouring practitioner, who was hastily summoned. She progressed favourably for eight weeks; but, at the end of that time, was attacked with profuse uterine hæmorrhage, which continued more or less till April 15th, and she was then admitted into the London Hospital. She was much blanched, had a quick, jerking pulse, and suffered greatly from palpitation of the heart. I saw her on the 20th, and detected a polypus of the size of a small pear, taking its origin from within the os uteri. I tied it on the 24th, without difficulty, by the double canula. The points of the instrument were received into the cavity. There was no pain on tightening the string; and the hæmorrhage, which had been going on rather profusely before, ceased immediately. On the next day, however, there was so much abdominal pain, which I attributed to the extremity of the instrument having been rubbed or jerked against the uterine walls, as she was very restless, that I carefully removed the canulæ, leaving the ligature surrounding the stem; and I tied a slip-knot on it by my fingers. The tumour was even now a good deal softened by putrefaction. There was no return of hæmorrhage; but, as the putrefactive process did not seem to be progressing, and as the abdominal tenderness had disappeared, on the 28th I threaded both the ends of the ligature, which was still around the stem, through the eye of Clarke's needle, and drew the

string tight. The same was done daily, and the polypus dropped off on May 5th. On the 12th there was no discharge of any kind, and she was going on quite favourably. This woman told me, that she had had irregular bleedings, together with other symptoms of polypus, for some time before her last pregnancy, and that they had ceased when she fell in the family way. There is no doubt that it was this polypoid mass that had prolapsed, both before the placenta passed, as well as three days after the labour, and that it had existed before impregnation took place.

Case 18.—On the evening of August 17th, 1849, I was summoned hastily to a lady about four miles from London, who had been seized with sudden and profuse hæmorrhage one month after her confinement of her sixth or seventh child. She was a good deal depressed by it, and the uterus was easily to be felt above the pubes, as large as one of between six and seven months' gestation. As there was some bleeding still going on, and as the os uteri would easily admit it, I proposed to pass my hand into the uterus, to remove any coagula that might have collected there; this I did without difficulty, and took away four or five ounces of coagulated blood. While my hand was in the uterus, I felt distinctly a polypus of a pear shape, attached to the fundus, as large as a nonpareil apple; and on my mentioning the circumstance to the gentleman with whom I was in consultation, he said he had felt the same tumour in her labour. The bleeding ceased; and in about three weeks she was able to resume her household duties. She had no return of hæmorrhage for about sixteen months, when I was again requested to see her. I found she had suffered a sufficient loss to cause faintness, from which, however, she soon recovered. The uterus was then discovered to be larger than natural, but no tumour could be felt. From that time to the present, she has enjoyed very good health, never having once had occasion to consult a medical man. She has not been pregnant again; and the only complaint she has to make is, that the catamenial discharges are more profuse, and continue longer than they used to do some years ago. Whether the polypus be still within the uterus I have no means of knowing; but a tumour of this kind may be present in the uterine cavity for a length of time without giving rise to the usual symptoms of polypus, and, indeed, without producing much inconvenience. It was the opinion of Levret, that a polypus, while it remained within the uterus, did not occasion any hæmorrhage, and that bleedings only took place from it after it had escaped into the vagina through constriction of its stalk; at least so Gooch interpreted his words, which certainly bear that construction. That this is a mistaken idea, I have myself had ample opportunities of knowing; but, as I have just said, a polypus within the uterus does not necessarily occasion hæmorrhage; and this may be the case in regard to the lady of whom I am speaking.

Case 19.—On the afternoon of Saturday, August 12th, 1843, I was sent for to a lady whom I had attended of three or four children in London, but who had removed to seven miles distance, and who had been subject for more than three years to irregular uterine hæmorrhages, sometimes to a great extent. She was nearly six months advanced in pregnancy, and had suffered from these bleedings during the whole of that time; as much, indeed, as she had done previously. She had sustained a very profuse loss a fortnight before, and another on the evening preceding my visit. I found her much exsanguined by these attacks, and greatly depressed. As hæmorrhage was then going on from the uterus, as she was suffering distressing uterine pains every five or six minutes, as the os uteri was dilated to the size of a shilling, and as I could distinctly feel the head presenting, I ruptured the membranes, and gave exit to a large quantity of liquor amnii, turbid, and of a green colour. The discharge almost immediately ceased, as did also the pains. The uterus resumed its action late on Sunday evening, and the fœtus was expelled at twelve at night, under the superintendence of the family surgeon; it breathed a few times, and then expired. There had been no return of hæmorrhage, nor was there any until after the birth of the child, when a fetid coagulum, that would weigh from two to three pounds, escaped, together with some florid blood. I was summoned, and arrived at four o'clock on Monday morning. She was a good deal exhausted, though there had not been much fresh loss. I found the placenta in utero partly separated, but the greatest portion attached to a polypus, as large as a doubled fist, that grew from the fundus uteri by a stem as thick as three fingers. I removed the placenta. There was still no hæmorrhage; the lady rallied considerably, and I left her at nine, with a well-grounded hope that she would survive, as she had no return of fainting while I remained with her. Soon after my departure, however, there being no additional hæmorrhage to account for it, she began to flag, complained of a painful sensation of constriction in the region of the diaphragm, and died quietly at twelve at noon.

In two of the cases detailed above, no hæmorrhage of importance occurred until three and four weeks after labour, and then there was sufficient loss to occasion just alarm.

Few cases in obstetric practice produce more embarrassment than sudden and copious gushes of blood happening at such a distance of time from the birth of the child; and the rarity of the occurrence tends greatly to increase the anxiety created. Under such circumstances, especially if the uterus, as in the two cases referred to, is felt large above the pubes, occupying a portion of the abdomen, it may always be suspected that some solid body is contained within the cavity, either a blighted ovum or secondary fœtus, or a portion of retained placenta, or a very firm coagulum, or perhaps a polypus. An examination per vaginam should always be instituted; for if there be a polypus it may have escaped from the uterus, and be lying in the vagina in a position favourable for its removal. Should that be the case, the sooner it is taken away the better chance will the patient have of ultimate recovery; and if the stem be thin, torsion may be sufficient to cause its separation; or it may require that a ligature should be passed around it in the ordinary way, and tightened daily until its attachment is destroyed. I should object, however, to any forcible attempts being made to break the stem by means of the fingers; and, unless it parted readily, should much prefer treating it by ligature, or perhaps by the knife.

If nothing be contained within the vaginal canal beyond a quantity of coagulated blood, which we shall mostly find there, that should be removed, and, provided the os uteri will admit the passage of the hand without injury to its structure, I see no objection, even at this distance of time from the labour, to its being carried well within the uterine cavity, for the purpose of taking away whatever coagula or other removable mass may be there present. I think it of importance that the uterus should be emptied of all that can be obtained without running the risk of inflicting mischief on the organ.

It is possible, also, that a polypus of greater or less size may be discovered enclosed within the uterine cavity, but with a stem so thick that it could not be broken, except by violent efforts, as happened in *Case* 18, just detailed. It would then become a question whether it would be better to leave it, or to endeavour to pass a ligature around it at once. Having cleared the cavity of all the loose matters it contained, I should be disposed to leave the tumour uninterfered with for the present, in the hope that the bleeding would cease, and in the expectation of being able to tie it at some subsequent period. Should the hæmorrhage, however, return, I should then make an attempt to remove it.

In most of the cases recorded where pregnancy and an intra-uterine polypus have existed together, although there might have been irregular uterine bleedings before conception occurred, the hæmorrhage has been either entirely suspended or greatly lessened during the residence of the ovum in utero; but in the case last detailed this did not take place: the loss of blood was indeed rather increased after impregnation. Whether this was owing to the peculiar situation of the placenta,—it having been connected to the side and lower portion of the polypus itself, from which I removed it by my hand,—I cannot determine, but I think it probable. The attachment of the placenta, indeed, is a curious feature in the case. We should not *à priori* have supposed that there was any arrangement of vessels in this morbid mass which could be rendered subservient to the preservation and nourishment of the growing embryo; but so it was; and the circumstance is not difficult of explanation. I have already described the tumour, which was removed by the hand, in *Case* 15, as very similar in appearance to the uterine structure itself; indeed, to distinguish it from the substance of the gravid uterus at full time, would have been almost impossible; and the same remark applies to a case attended in 1843 by Mr. Crisp, and quoted by Dr. Oldham, in which the patient died soon after having given birth to her sixth child, and where an immense polypus was found attached to the uterus. This mass is described as differing only from the muscular structure of the pregnant uterus in being less full

of cells and more distinctly fibrous ;(a) and when we call to mind, that a fœtus may be developed *extra uterum*, and acquire the size of a child at birth,—the placental vessels communicating with structures that would appear quite unfitted for the office of supplying nourishment,—we cannot be surprised that it should be able to obtain support through the medium of an adventitious tumour, such as I have described, whose anatomical structure bore such a close resemblance to that of the womb at the close of gestation.

7, Portman-square.

[To be continued.]

THE LONDON PRACTICE OF MEDICINE AND SURGERY.

ST. BARTHOLOMEW'S HOSPITAL.

LARGE PENDULOUS HYPERTROPHY OF THE SKIN OF THE BUTTOCK.—OPERATION.—RECOVERY.

[Under the care of Mr. PAGET.]

A case of singular interest has recently been under Mr. Paget's care, in which a tumour of very unusual structure was submitted to excision. We should have brought its details at an earlier period before the attention of our readers had it not been for a desire to record at the same time the recovery of the patient.

Squire Kay, aged 42, a carpenter, living at Bradford, in Yorkshire, was admitted on Sept. 18. He had come up to town with a view to having a very large tumour removed from his left buttock, which he stated had been gradually increasing in size for thirty years. On exposing the affected part, there was seen to be a huge pendulous growth attached to the nates by a long and flattened base, and overhanging the upper part of the thigh. It was very movable, and swung about with each motion of the body, in a manner very inconvenient to its possessor. The fold of skin by which it was attached extended obliquely across the nates from the anterior superior spine of the ilium to near the coccyx. The integument covering it was closely adherent, and had the appearance of being stretched and somewhat seamed. To the touch neither lobes nor defined margins were detectible, the whole feeling as if consolidated into one firm mass, some parts of which, however, were much more dense than others. With the fascia covering the subjacent muscles it appeared to have only very loose connexions. It had been increasing in size of late more rapidly than before, and the patient had become very anxious for its removal. When sitting, he was accustomed to place it under him as a cushion, but in walking it gave him great annoyance. He was a stout, somewhat bloated-looking man, accustomed to drink malt liquors very freely, and not at all a promising subject for an operation. Mr. Paget, having warned him that the excision of so large a tumour would be attended with a certain amount of risk, acceded to his wish to have it removed.

On Sept. 25, chloroform having been administered, and the man placed on his face with the hips bent, the tumour was held upwards by assistants, and Mr. Paget commenced by making a curved incision across the whole extent of the under surface of its base. He next divided its cellular attachments to the subjacent parts, and then dissected off from its upper surface a large semilunar flap of skin, which done, the whole was removed. In the course of the operation, it had been necessary to suspend proceedings for a short time, as the patient's breathing had become embarrassed, and indeed almost suspended; by change of position, however, and by dashing water in his face, he was soon rallied. The condition appeared to have been caused by the influence of chloroform, exhibited whilst laid on his abdomen, a position unfavourable to the maintenance of respiration. But little hæmorrhage took place, and only five vessels required ligature. The wound made was of necessity very large, being sixteen inches in length ; it was, however, abundantly covered by the flap of skin, which having been retained in position by sutures and compress, the patient was sent to bed. During the following week, he had considerable pyrexial disturbance, and sloughing of the edges of the flap took place, not however, to an extent sufficient to interfere materially with the ultimate adjustment of parts. The healing process was slowly accomplished, and the patient has since returned home. Before the operation, it had been suggested that the tumour might prove to be a fatty one, which had been rendered more or less solid and fibrous by long-continued pressure. Dissection, however, proved it to consist solely of hypertrophied skin and subcutaneous areolar tissue. Its section exhibited a distinct layer of thickened epidermis, surrounding a thick firm mass of whitish and fibrous looking structure. It contained neither fat nor cysts.

Hypertrophous conditions of circumscribed portions of the integument of which the above presents us with a very extreme example, may occur either as congenital or acquired diseases. Of the latter, the most common instances are found on the female genitals, an interesting example of which, as affecting the clitoris, was recently submitted to operation by Mr. Shaw in the Middlesex Hospital. Its particulars may be found in our report of the proceedings of the Pathological Society. Of the congenital forms we have within the last year seen several examples. A little boy, a patient of Mr. Wormald's, had several firm cutaneous nodosities on his left hand, some of them almost the length of the finger on which they were placed, and quite as thick. Treatment effected but little towards their diminution. Another child, under the care of Mr. Tamplin, at the Royal Orthopædic Hospital, had a similar thickening of the skin over-lying the left calf. It was prominent, solid-feeling, and moderately circumscribed.

(a) See also an account, by Dr. Robert Lee, of a polypus very similar to those mentioned in the text, in the "Medico-Chirurgical Transactions," Vol. XIX., page 118.

CANCER OF LOWER JAW.

OPERATION.—RECOVERY.—SUBSEQUENT RETURN OF DISEASE.—DEATH.—AUTOPSY.—SECONDARY DEPOSITS ON THE PLEURA AND IN THE HEART.

[Under the care of Mr. LLOYD.]

The doctrine is now very generally admitted, that malignant diseases are neither local nor constitutional exclusively, but at the same time both one and the other, and that they require for their development a condition of aptness on the part not only of the general economy, but also of some particular organ. Thus, when a cancerous growth follows the infliction of some trivial injury, the circumstance is to be accounted for by supposing that a latent predisposition already existed in the system at large, and that its outbreak was only delayed until some part was brought into a state fitted for its manifestation, the production of which local aptitude is the part played by the applied violence. In our next week's report we hope to bring forward some very instructive cases, in which cancer followed injuries, and shall defer till then any further comments on this subject, only stopping for the present to remark, that the share taken by the local and general predisposition respectively in the production of these diseases appears to vary very much in different cases. While in some the constitutional cachexia is extreme, the outbreak spontaneous, and affecting in a very short time more than one part, in others the disease follows only on the long-continued application of some peculiar irritant, and is attended by little, if any, apparent constitutional derangement. Of the former class, an excellent example is afforded by the following case. In it the history of hereditary tendency could be traced. Its course was rapid, and marked throughout by intense "malignant cachexia." If the term may be permitted, it was an instance of *acute* cancer :—

William Butler, aged 33, of very intemperate habits, pale, thin, and earthy-complexioned, was admitted May 17, 1852. The whole left side of his lower jaw was much swollen, the skin being smooth, tense, and reddened. To the finger it gave a very deceptive sense of fluctuation. In the mouth, the swelling had extended both to the gums and to the soft parts in its floor. The teeth were quite loose, and several had come out. He stated that the disease had spontaneously commenced three months previously, with severe pain, which, as the swelling took place, became mitigated. Of late he had not experienced any acute pain, but only a sense of stiffness in the part. He had always been very sickly-looking, and one of his maternal aunts had died of scirrhus of the breast. The sense of fluctuation became more and more distinct, and a few days after his admission Mr. Lloyd made a puncture into it, at a part where it seemed to be pointing; nothing, however, but blood escaped. Mr. Lloyd, now feeling convinced that the disease was of a malignant character, determined, with the concurrence of his colleagues, to excise the part.

On May 21, the patient having been put under the influence of chloroform, Mr. Lloyd made a curved incision along the lower border of the jaw, from near the chin to a little behind the anterior edge of the masseter. The flap having been dissected upwards, the diseased bone was brought into view. Ligatures were placed on the facial and other arteries, which bled freely ; and the skin below, together with the soft structures in the floor of the mouth,

having been separated from it, the bone was then divided with bone forceps at the last molar tooth on the left side, and at the middle incisors anteriorly. At the latter part it was firm and apparently sound, but the condition of the angle and ramus was not so certain. The removed portion was so disintegrated as to break down into fragments during the operation. It consisted of the periosteum distended into a large sac, and enclosing within its cavity large and rather firm masses of medullary structure, mixed up with plates of bone and coagula of blood. Examined with the microscope the characters of soft cancer were well marked.

The incisions healed almost entirely by first intention, and in little more than a fortnight he was able to masticate animal food. After the lapse of a few weeks, however, during which he had enjoyed a condition of comparative comfort, a painful induration formed in the part of the left ramus which had been left behind. It increased in size, and became the seat of acute pain, whilst, at the same time, his general health rapidly declined. It was not thought advisable to attempt a second operation, and he was accordingly allowed to return home, after which the disease continued to progress; an enormous ulceration of the whole left cheek took place; he sank into the last degree of emaciation, and died on the first of December, nearly nine months after the appearance of the first symptoms of the disease.

The examination of the body was conducted at his home. Besides the return of cancerous disease in the jaw and surrounding parts, it revealed the formation of secondary deposits on the free surface of the pleura, and *beneath the endocardium of the right ventricle of the heart*. In the latter organ, (in which, according to Rokitanski, malignant depositions are extremely rare, and, when they do occur, always evidence of intense malignant dyscrasia,) there was found but a single pea-sized nodule, elevating the lining membrane, and also dipping slightly into the muscular structure. It was firm and semi-transparent, and, when cut across, appeared homogeneous, and but little juicy, rather gelatinous than brain-like. The accompanying illustration of its microscopic composition, however, sufficiently demonstrates its identity of character with those found on the pleura. These latter, which existed only on the left side, were very numerous, the pulmonary and diaphragmatic layers being almost covered with smooth flattened nodules, varying in size from a pea to a half-crown. They presented a glistening surface, and were enclosed in a thin cellular envelope. By a little scraping they might be easily detached from the pleura, which was then left quite smooth. When cut they exhibited a grey opaque surface, from which exuded plentifully a cream-like juice. To the naked eye, as well as under the microscope, they presented strong features of difference from the nodule found in the heart, as will be seen by the engravings. The cells of the one were much more elongated and caudate than those of the other, in which, for the most part, they were round. The number and distinctness of the nuclei, however, in each case, left no room for doubt as to the nature of the structure.

Cancer Cells from the Heart.

Cancer Cells from the Pleura.

The right pleura, both lungs, the bronchial glands, the pericardium, and the whole of the abdominal viscera were carefully examined, but no other deposits could be found.

NOTE.—The blood-cell in the left-hand corner of each illustration has been there introduced for the sake of affording a standard of comparison as to size.

UNIVERSITY COLLEGE HOSPITAL.

LARGE CONGENITAL TUMOUR OF THE SKIN.

[Under the care of Mr. MARSHALL.]

We are induced to notice the following singular case, for the sake of comparing it with the succeeding one, which in some respects it much resembles:—

Edwin Webb, now aged five months, has been attending as an out-patient under Mr. Marshall's care ever since birth, on account of a tumour, the size of a man's fist, in front of the upper part of the left thigh. It commences gradually below Poupart's ligament, and, increasing in thickness, terminates abruptly at the lower third of the thigh, where its edge becomes a little overhanging. It is a firm solid-feeling mass, easily movable on the fascia of the limb, but inseparably attached to, and in fact involving, the superjacent skin. By steady pressure its bulk may be a little diminished, but by far the greater portion of it remains unaltered, and is evidently quite solid. The skin over it is discoloured and congested, but does not resemble that of a nævus. Its condition at birth was much the same as at present, excepting that it appeared to be a little larger and more vascular. Mr. Marshall inclines, we believe, to consider it as an increase, with condensation, of the subcutaneous cellular tissue and deeper layers of skin, attended also with excess in the number and size of the vessels supplying it; thus constituting a sort of connecting link between the true nævus and mere hypertrophy of skin. The treatment which he has pursued has consisted in the adjustment of pressure over it, by which it is hoped that its increase of size may be prevented, until, in the course of years, its proportion to the rest of the limb may be so much lessened as to permit of its excision without risk.

THE LONDON HOSPITAL.

TRAUMATIC ABSCESS IN THE BRAIN.—EVACUATION BY PUNCTURE.—APPARENT RECOVERY.—RELAPSE.—DEATH.—AUTOPSY.

[Under the care of Mr. ADAMS.]

On Oct. 16, a little boy, aged 1½, was admitted into the London Hospital under the following circumstances:—About six weeks previously, while at play with a small file in his hand, he had fallen down, striking the left side of his forehead on the sharp end of the file. His mother observed a small wound, and also that a portion of the file was broken off; but as the boy did not appear to be much hurt, no notice was taken of the accident; and in a few days the wound, with the exception of a small portion which had scabbed over, was quite healed. About a month after this, during which time the child had seemed as well as usual, a little inflammation took place around the scar, and he became sick and indisposed. One morning while washing his head, his mother noticed something rough, and, observing a black speck, applied her nail and drew out the end of the file, about an inch in length. From this time forwards the child got much worse, he became more drowsy, refused to take food, and repeatedly vomited. By degrees he passed into a state of insensibility, in which condition, by the advice of Mr. Ryland, the surgeon who attended him, he was brought to the hospital, about a fortnight after the withdrawal of the broken instrument. He was then perfectly comatose, and the pupils, though not quite motionless, were widely dilated; there was, however, no paralysis. On examining the seat of injury, a small tumour, the size of a nut, was perceptible, resembling a newly-formed cicatrix, raised up above the level of the surrounding bone; it was found to be pulsating synchronously with the heart, and by pressure it could without difficulty be forced through a round opening in the bone into the cavity of the cranium. The edge of the aperture was distinctly defined, but rather irregular. Compression of the tumour produced no alteration in the symptoms.

After a careful investigation of the case, Mr. Adams expressed his belief that a collection of matter had formed in the cerebral hemisphere, and was now making its way to the surface through the hole in the bone. He decided, however, to watch the symptoms for a little time before determining to make a puncture. A cold lotion was accordingly ordered to be applied to the part, and a dose of hydr. c. cret. to be administered. On the following day there was a slight degree of amendment, but it was soon after followed by a relapse into the previous condition.

On Oct. 18, a consultation having been held on the case, it was determined to introduce a grooved needle into the tumour. On withdrawing the instrument, which had been introduced fairly within the cranium, its groove was found to contain pus. The opening was accordingly enlarged by a bistoury, but it gave exit

only to some broken down brain substance in a diffluent state. A poultice was then applied, and on the following morning when removed it was found to contain much pus.

For a few days the symptoms were not decidedly alleviated, but afterwards the child began to regain his consciousness by degrees, took notice of what was passing, and ate his food. A large quantity of matter was discharged each day on the poultice ; the wound, which at first had inclined to fungate, assumed a healthy aspect, and the granulations subsided to a level with the scalp. The improvement was steady, and the child regained the use of all its faculties. Nothing particular in the way of treatment had appeared necessary, a good diet with a small quantity of wine having been allowed.

On November 30 the wound was quite closed, and the convalescence seemed so complete that it was intended to allow the child to return home in a short time.

On December 1 a relapse had occurred ; the child had been sick, and again had passed into a state of coma. The left side of the trunk and the left limbs were affected by tremors of a peculiar character, and not amounting to convulsions. On examining the head Mr. Adams found the membrane by which the aperture was now quite closed, bulging and distended. He at once introduced a grooved needle, but no pus flowed although the instrument had passed at least an inch deep. On withdrawing it a probe was introduced still deeper, but no matter followed it. Mr. Adams accordingly directed a poultice to be applied, in the hope that the pus, if it existed, might find its way to the surface. The child was, however, in no respect relieved ; he continued in a deep coma, and died on the following day.

At the *post-mortem* examination a small tumour was observed to exist about half an inch above, and to the out side of the left frontal eminence, which on reflecting the scalp was found to communicate with an almost circular opening in the bone, and with a smaller one in the dura mater beneath. The edges of the latter were irregular. The hole in the bone was about the size of a threepenny piece, and its borders, though very thin, were perfectly smooth.

On removing the right half of the calvaria, about three ounces of sero-purulent fluid escaped from the arachnoid cavity, and the left hemisphere was then observed to be raised a quarter of an inch above the level of the right; it also yielded a plain sense of fluctuation. In most, but especially on the left side, the subarachnoid tissue was infiltrated with serum and lymph. On cutting through the cortical substance of the left hemisphere, the cavity of a circumscribed abscess, capable of containing a small egg, was exposed. It communicated above with the perforation in the frontal bone, and below with the interior of the left ventricle, which, like the abscess, was filled with pus and broken down brain tissue. Through the much-dilated foramen of Monro some of the fluid had passed into the right ventricle. The third and fourth ventricles were also filled with a similar fluid.

In some clinical observations on this very interesting case, Mr. Adams directed attention to the extraordinary circumstance of so large a foreign body having been allowed to remain imbedded in the cerebral hemisphere for several weeks, without the production of any serious symptom. He stated, that, difficult as is very frequently the diagnosis of abscess in the brain, he had yet, from the very first, felt but little room to doubt of its existence in the present instance. Previous to the first puncture it had been suggested that the tumour might be an erectile one, such as on the scalp not very unfrequently results from injuries, but against this idea were the existence of symptoms of compression, and the peculiar character of the pulsation, which rather resembled that of a propagated impulse, than the direct one of a spurious aneurism.

Respecting the prognosis in cases of cerebral abscess, Mr. Adams remarked that it must always be unfavourable, but there were some interesting ones on record which terminated in recovery. In one of these, detailed by M. Roux in the *Archives Générales*, there had been for some time a fistulous ulcer over the centre of the left parietal bone, from which a large quantity of discharge was accustomed to escape. Whenever it became closed, the patient was seized with coma, which again subsided when the discharge recurred. M Roux removed a piece of bone with the trephine, and then detected an opening of small size in the dura mater, which he enlarged, and there immediately issued a large quantity of matter. As the abscess emptied itself, the brain at first appeared to be depressed at this part, but in the course of a few days, the space became filled up, the discharge gradually decreased in quantity, and the patient was eventually cured. In another case, recorded by Dupuytren, the patient had received, several years previously, a punctured wound of the skull from the point of a knife. A sudden attack of stupor having supervened, he was brought to the Hôtel Dieu. The cicatrix was incised, and the point of a knife removed. After the removal of the foreign body, as the symptoms were not meliorated, Dupuytren opened the dura mater, and plunged a lancet to the depth of an inch into the hemisphere, and thus evacuated a large quantity of matter. In the evening the patient's speech and intelligence had returned, and a complete recovery ensued. This latter case, it will be seen, affords, excepting in its termination, a very close parallel to the one which we have detailed.

HOSPITAL FOR WOMEN.

CASES OF OVARIAN DROPSY.

[Under the care of Dr. TANNER.]

The two following cases forcibly illustrate the impropriety of resorting to the formidable operation for the excision of ovarian cysts until the patient has had given to her the chance of prolonged relief, or even cure, which sometimes result from the more simple proceeding of tapping. As will be seen on perusal, in one case in which the operation of paracentesis was performed, the cyst has not refilled, nor given any signs of its being about to do so, though more than two months have elapsed since the evacuation of its contents. In the other, the removal of the fluid enabled the physician positively to ascertain the existence of numerous adhesions between the surface of the cyst and the abdominal peritoneum, together with the presence of a large solid mass, altogether forbidding the idea of any attempt at extirpation. We need only briefly refer to the history of the first case, as it has already been reported in detail on a former occasion, in illustration of the advantages which result from performing the operation of paracentesis abdominis, with the patient in the recumbent posture, as recommended by Mr. Fergusson, etc.

M. S——, aged 46, married twenty-four years, never pregnant, applied at the hospital on the 13th October, 1852. Has always enjoyed good health, though she has never been very strong. Catamenia first appeared at seventeen, without pain; they continued regular until her marriage, since which time they have been slightly irregular and attended with suffering; has always had leucorrhœa. Until eight months ago she was in her usual state of health, but at this time, while lifting a heavy weight, she felt something give way at the lower part of her abdomen, and, for half-an-hour afterwards, experienced great agony, which then subsided. Since this period her abdomen has been gradually enlarging, the enlargement being uniform over every part, and never having been more appreciable on one side than on the other. On examination, the abdomen was found to be as large as that of a woman at the full term of pregnancy. Fluctuation could be distinguished over every part, and there was universal dulness on percussion. Owing to the great pain and tenderness experienced, and the attacks of dyspnœa, which at times became urgent, it was determined to withdraw the fluid contents of the cyst by tapping. This was accordingly done on the 25th October, by Dr. Tanner, assisted by Mr. Sanderson, rather more than nine pints of a dark-coloured, gelatinous liquid, resembling linseed-tea, being taken away. The fluid removed was of neutral re-action, had a specific gravity of 1030, and contained much albumen. During the operation the patient was placed at the edge of her bed, in a recumbent position, on the right side, being gradually turned over on to her face, as the contents of the cyst flowed out. The advantages which resulted from this position were these: first, it appeared a comfortable one, free from restraint, and one from which the patient had not afterwards to be moved ; secondly, it was found that the belly-bandage and the two assistants necessary to tighten it, when the sitting posture is adopted, could be dispensed with; thirdly, that the cyst was more completely emptied than in the usual way ; and, fourthly, that syncope seemed less likely to occur; for, as this takes place from the want of support which the diaphragm experiences, owing to the shrinking of the tumour, so this want is less felt in the recumbent posture. The woman was discharged from the hospital, apparently cured, on the 14th December. She has remained well.

Mrs. Maskell, aged 45, was admitted under Dr. Tanner's care, 10th December, 1852. Has been married 25 years. Has been twice pregnant; the last time was twenty-one years ago. Catamenia were always regular until twenty-one months since; from this period they have been absent. She thinks that there was slight enlargement of the stomach before the catamenia ceased. During the last eighteen months, however, the abdomen has gradually and rapidly increased in size. On admission she was found emaciated, countenance anxious, and the abdomen very much enlarged, so that she measured 46 inches in circumference at the umbilicus,

and 24 inches in length from the ensiform cartilage to the pubes. Fluctuation was distinct over every part, with dulness on percussion; on the right side, just below the liver, a solid mass could be distinguished about 8 inches long, and 4 or 5 inches wide. Her urine was scanty; bowels costive. She was unable to walk much, or to do any work, and complained of constant pain. A few days after her admission, it was determined by Dr. Tanner, in consultation with his colleagues, Dr. Protheroe Smith, Mr. Sanderson, and Mr. Scott, to try the effect of tapping. This proceeding was also recommended by Dr. Todd, who saw the patient. Accordingly, on the 16th of December, the operation of paracentesis abdominis was performed, and the large quantity of thirty-five pints of a thick, dark-coloured fluid removed, which was afterwards found to be of neutral re-action, to have a specific gravity of 1040, and to consist almost entirely of albumen, becoming quite solid on the application of heat or nitric acid. On examining the flaccid abdominal wall, dulness was found to exist everywhere on percussion, and the thick coats of the cyst could be distinguished through the parietes. On the right side the large solid mass before referred to was found adherent to the abdominal peritoneum. The patient was, a few days afterwards, ordered a nourishing diet, with wine and beer, etc., and was also directed to take the cod-liver oil. By this treatment she rapidly recovered her health, and is now much better and stronger than she has been for some time. Unfortunately, however, there is every indication that the cyst is re-filling; but she has been ordered the iodide of potassium with the tincture of iodine, in order, if possible, to control the secretion. We shall watch the further course of this case, and in due time present the particulars to our readers.

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Medical Times & Gazette.

SATURDAY, JANUARY 1.

OUR NEW YEAR.

THE first year of the incorporation of the *Medical Times and Gazette* having glided away, our gaze is directed steadfastly to the future, cheered by the success which we have achieved, and determined that renewed efforts shall entitle us to a continuation of the same encouragement. The gratitude we feel for the support extended to us by all classes of our professional brethren, has been already expressed; but we may be permitted again to refer to the distinguished writers who have graced our columns during the past twelve months, among whom will be found most of the leading authorities in Medical and Surgical Science in these kingdoms. The names of BOWMAN, BURROWS, BRANSBY COOPER, FERGUSSON, LAWRENCE, PARKES, QUAIN, RAMSBOTHAM, TODD, WALSHE, etc., etc., afford sufficient testimony of the valuable matter contained in our pages; and we are happy to announce, that most, if not all of these gentlemen, will continue their contributions to this Journal, together with others no less conspicuous for their talents and experience. We may, therefore, without undue vanity, congratulate ourselves upon the position which the *Medical Times and Gazette* at present holds. Invidious comparisons with other periodicals, or even with the original papers which lately coalesced to constitute our own, we have no desire to draw; it is sufficient for us to state, that in extent and variety of information, in boldness and independence of principle, in the sacrifice of all personal and private considerations for the general good, we may safely challenge competition with any other medical periodical in this or any country.

Deeply impressed with the necessity of making our pages the vehicle for communicating sound medical information to our readers, we shall continue to publish the Clinical Lectures of our most distinguished Professors, delivered at the chief Metropolitan and Provincial Hospitals. It is almost superfluous to say, that the importance of this method of instruction, derived as it is from the rich field of experience, cannot be over-rated. By it the phenomena of disease, observed at the great centres of medical and surgical knowledge, become familiarized to the minds of distant readers, and novelties in diagnosis and treatment are made to travel with almost electric rapidity to the remotest regions of the globe.

In addition to the usual and more familiar methods of diagnosis and treatment, two most important auxiliaries have lately been added to the means already at our disposal in enabling us to comprehend and to combat with disease. We allude to the modern researches in Organic Chemistry, and the recent investigations in structure effected by the employment of the Microscope.

The science of Chemistry, in itself of comparatively modern origin, has lately been closely associated with the physiology and pathology of living beings: the department of Organic Chemistry, which was once but an imperfect and scanty appendage to treatises on the science in general, has assumed a paramount degree of dignity and importance; and it may be averred with truth, that no man can be a safe practitioner in medicine who is unacquainted with its leading features. Anxious to supply a want which many must have felt, we have made arrangements for the publication of a comprehensive course of lectures on this subject, about to be delivered by PROFESSOR HOFMANN at the Royal Institution. The celebrity already acquired by this gentleman, as Professor at the Royal College of Chemistry, is a sufficient guarantee for the ability and skill with which the subject will be treated.

The ultimate structure of organic bodies having been extensively elucidated by the applications of the Microscope, and a new field of inquiry into morbid action having been opened to the Profession by the revelations effected by this instrument, we have gladly availed ourselves of the opportunity afforded to us for the publication of a series of Lectures upon its construction and uses, and upon the principles of Histology. The first of these Lectures, by DR. BOON HAYES, will appear in our next Number, and the Lectures will be published at intervals until the completion of the course.

But while thus laying before our readers the latest researches in the vast field of pathology, we have not forgotten the subject of Therapeutics. The accuracy of the diagnosis is of little importance to the patient, unless it enable the Practitioner to treat him more successfully. In vain, however, does the Physician prescribe the drug most suited for the case, unless that drug be administered in an unadulterated form. Now, it is commonly believed, that a large number of the drugs supplied to the Public and to the Profession is extensively adulterated. We have, therefore, had a series of analyses of various drugs made by gentlemen on whose skill and honesty of purpose our readers may most implicitly rely. The results of the first of these analyses will be published in our next Number.

With regard to the general principles by which we shall continue to be guided in the management of this Journal,

it is necessary to say but little, and we willingly leave to time and public opinion the duty of pronouncing judgment upon our exertions. We have no cause to advocate but the cause of truth; no interests to serve but those of the Profession at large; no object to attain but the greatest happiness of the greatest number. These have been, and will be, the mainsprings and motives of our exertions, and experience has taught us but a sorry lesson if they do not lead to and command success.

Our next Number will contain the First of a Series of Lectures on the Microscope and Histological Anatomy, by Dr. Boon Hayes.

The First of a series of Papers on the Adulterations of Drugs.

In succeeding Numbers we shall publish Clinical Lectures by Dr. Todd, Dr. Burrows, Dr. Parkes, Mr. Fergusson, F.R.S., Mr. Quain, etc., etc.

A course of Lectures on Organic Chemistry to be delivered at the Royal Institution by Professor Hofmann.

A course of Twelve Lectures on Stomach and Urinary Diseases, by Dr. Bence Jones.

The Gulstonian Lectures to be delivered at the Royal College of Physicians, by Dr. Jenner.

Reports of Cases from the Royal Hospital of Bethlem, with remarks upon the mural condition of the Criminal Lunatics; also an Analysis of the *Post-mortem* Examinations performed by Mr. Lawrence, F.R.S., etc., Surgeon to the Hospital. By C. B. Hood, M.D., Medical Superintendent to Bethlem Hospital.

REVIEWS.

A Dictionary of Practical Medicine, etc., etc. By James Copland, M.D., F.R.S., Fellow of the Royal College of Physicians, etc. Part 15. 8vo. Pp. 143. London: Longman, Brown, Green, and Longmans. 1852.

Copland's Dictionary is unquestionably one of the most remarkable works, considered in reference to its extent, and to the worth of its contents, that have ever issued from the medical press. The present part fully equals its predecessors. It contains the conclusion of the article on the Spinal Column, and complete articles on the Diseases of the Spleen and Stomach, Stomatitis, Succussion, Sycosis, Sympathy, and the Sympathetic Associations of Disorder, Symptomatology, comprising Diagnosis and Prognosis.

An abstract of Kölliker's description of the structure of the spleen precedes the account of its diseases. To these latter fourteen pages of the work are devoted, constituting by far the most complete treatise on the subject in our language. They are arranged and described under the following heads:—

1. Painful Affections of the Spleen or Splenalgia.
2. Congestion, or simple Turgescence of the Spleen.
3. Inflammation—(a) Acute, (b) Hyperacute, (c) Asthenic Acute, or Consecutive Splenitis, (d) Chronic Splenitis.
4. Organic Lesions of the Spleen—(a) Alterations of the Fibrous Structure of the Spleen, (b) Lesions of the Spleen seated in both its containing and contained parts, (c) Enlargement or Tumours of the Spleen, (d) Morbid Formations, (e) Hæmorrhage in the Spleen.

Splenalgia, Dr. Copland considers to be the cause of the pain in the left side so common in boys on running up hill or against the wind, and in hysterical women.

"In children," he says, "chronic splenitis is not an unfrequent disease, even in this country, at least according to my experience, during the many years of my being Physician to the Infirmary for Children; but it is much more frequent in warm climates, especially among the children of European parents. In them it generally commences with anorexia, restlessness, or fretfulness, and often sleeplessness. They gradually lose all desire of play, and become indifferent to surrounding objects."

After about a fortnight, the skin becomes sallow, or even of a leaden hue,—subsequently the pulse is frequent, there is remittent or hectic fever, and pain in the left shoulder.

"There is a constant feeling of tenderness and of weight in the left hypochondrium, increased by pressure. When the patient lies on his back, and the fingers are pressed under the false ribs of the left side, a hard tumour is felt, the size being generally less than that usually termed enlarged spleen, or even that called congested spleen. The patient dislikes the erect posture, and lies chiefly on the left side, with the knees drawn up and the trunk curved."

The bowels are generally costive, the stools being dark. The urine is usually pale and copious.

"In some cases the emaciation becomes remarkable before dissolution, and in these, as well as in others, ascites has often existed for a considerable time previously to death."

No separate treatise has appeared in this country devoted to the subject of symptomatology, or the value of the signs of special symptoms.

We regard the article on this subject by Dr. Copland, therefore, as a good addition to medical literature. We shall illustrate the mode in which Dr. Copland has treated it by reference to the section on the signs connected with expectorating.

"The expectoration furnishes much information as to the nature, seat, and issue of disease; especially of pulmonary disease. It may consist—1st, of morbid mucus; 2nd, of purulent mucus; 3rd, of purulent mucus containing portions of tubercular matter; 4th, of pus or ichorous matter; 5th, of blood, or blood conjoined with either of the preceding; 6th, of fibrinous substances moulded to the bronchi; and 7th, of calcareous matter, or hard concretions formed in, or the remains of tubercular deposits."

Each of these varieties of expectoration are considered at length, and their value as signs of particular diseases given.

Speaking of earthy or calcareous concretions, Dr. Copland says:—

"A medical man called upon me, complaining that on each inspiration and expiration, but during the latter especially, there was a loud whistle, which could be heard at any distance in the room from him. He had neither cough nor expectoration; and he stated that he had not experienced either for several years. He was a fluent and eloquent speaker and lecturer, and never experienced any inconvenience from speaking for a long time; but many years ago he had had some pulmonary symptoms. I told him that one of these concretions, of considerable size, was making its way through the parietes of one of the large bronchi, and that he would expectorate it in the course of a few days. He did so, the concretion being the size of a large pea. He is quite well at this time."

We need scarcely say that no medical practitioner should be without a copy of this very valuable work, now approaching completion. As a book of reference it is unrivalled.

Principles of Human Physiology, with their Chief Applications to Psychology, Pathology, Therapeutics, Hygiene, and Forensic Medicine. By William B Carpenter, M.D., F.R.S., F.G.S. Fourth Edition. Pp. 1104. London: Churchill. 1853.

It is almost a work of supererogation to speak in terms of commendation of Dr. Carpenter's "Principles of Human Physiology," which have now for many years constituted the best text-book in the language upon this extensive subject. We can well recollect the necessity which existed for such a work in our own student-days, when the Treatises of Blumenbach, of Richerand, of Majendie, of Bostock, and of Mayo, however valuable in themselves, were inadequate to present to the mind a full and complete view of physiological science. At the period to which we refer, physiology was in a transition state, and from that day to the present, it has been enriched by almost daily additions from the wide field opened to view by the modern researches in Organic Chemistry and Histology. The first appearance of Dr. Carpenter's Work supplied the desideratum, and his powerful mind, aided by laborious industry, first condensed and arranged the scattered elements of which physiology consisted but a few years since, and reduced them to a compact and harmonious whole. Dr. Carpenter, in his present edition, has not contented himself with the laurels he has already won in the field of science: but, very properly considering the necessarily-fluctuating and changeable nature of physiological knowledge, he has carefully kept pace with the progress of discovery and research, and while the whole work has been revised and re-arranged, many parts have been added, and others entirely re-written. There is a

copious index at the end of the book, and, in accordance with the wishes expressed upon the subject, a large number of references have been introduced.

A Practical Treatise on Inflammation of the Uterus, its Cervix, and Appendages, and on its Connexion with Uterine Disease. By James Henry Bennett, M.D. Third Edition, pp. 532. London: Churchill. 1853.

Clinical Reports of Ovarian and Uterine Diseases. With Commentaries. By Robert Lee, M.D., F.R.S. Pp. 340. London: Churchill. 1853.

The work of Dr. Henry Bennett has been for many years before the Profession, and, notwithstanding the opposition to which the views it advocates have been exposed, it has held its ground as a standard work upon the subject to which it refers. The views of Dr. Bennett are now well known, and abundant opportunities have been afforded for testing their truth; and it is only justice to admit, that the general opinion of the Profession has been favourable. The present edition contains no remarkable novelties, but it has been carefully revised, and some portions have been added as illustrative of Dr. Bennett's further experience in uterine pathology. The principal additions of this nature have been in the chapters on Menorrhagia, and on Displacements of the Uterus. The main features of the work, such as the description of the Anatomy and Physiology of the uterine organs; the necessary liability to disease of parts so essential and important to the female as the mouth, neck, and body of the uterus; the great frequency, so much questioned, of inflammation and ulceration of the uterine neck; the intimate and necessary connexion of these lesions with many obscure but painful affections of the female system, such as leucorrhœa, dysmenorrhœa, amenorrhœa, partial prolapsus, and the like; the absolute necessity for the employment of the speculum to distinguish these morbid conditions of the uterine organs, their treatment by nitrate of silver and nitrate of mercury, potassa fusa, and especially with potassa cum calce,—all these points have been repeatedly brought under the notice of the Profession, and by their truth or error Dr. Bennett is prepared to stand or fall. "Believing thoroughly," says Dr. Bennett in his Preface, "in the correctness of the facts and doctrines which I have advanced, I shall henceforth leave them in the hands of the Profession, under the conviction that eventually they must and will be adopted and acted upon by the entire medical community."

Dr. Lee's book consists of a series of five reports upon Ovarian and Uterine Diseases, and is the result of the extensive experience of the Author in public and private practice. The first Report contains "Observations on the Structure, Functions, and Diseases of the Ovaria," and the histories of one hundred and seventy cases. Dr. Lee is an avowed and rather bitter enemy of some new methods of exploring uterine tumours and ovarian cysts, and of the modern practice of extirpation; but we shall allow Dr. Lee to speak for himself, p. 83:—

"The diagnosis of fibrous tumours of the uterus and ovarian cysts, can be drawn with sufficient accuracy for all practical purposes, without the employment of that useless and dangerous instrument called the uterine sound or poker. I have seen this weapon on various occasions employed by those who are accustomed to its frequent use, and I never, in a single instance, observed any information derived from it, and, on several occasions, it has led to the commission of gross errors. After having been introduced into the cavity of the uterus, and attempts made to dislocate the organ, or force it out of the cavity above the brim of the pelvis, the efforts have been ineffectual, and the instrument has been withdrawn covered with blood. On more than one of these occasions I had no doubt that the point of the metallic probe had wounded the coats of the uterus."

Then follows an analysis of one hundred and sixty-two cases of ovariotomy, from Volume XXIV. of the "Medico-Chirurgical Transactions;" "and these cases," says Dr. Lee, "will furnish data to enable us to determine whether it would not contribute equally to the interests of humanity, and the honour of British Surgery, if this operation, which was facetiously termed 'belly ripping' by Robert Liston, were wholly abandoned."

The Second Report is devoted to the Malformations of the Uterus, the Diagnosis of Diseases of the Uterus and of the Fallopian Tubes, and upon the Use of the Speculum in the Diagnosis and Treatment of Uterine Diseases. In the whole of this report, and indeed in many other parts of his work, Dr. Lee regards the use, or rather the abuse, as he would term it, of the speculum in no friendly light, and he omits no opportunity of describing the injurious consequences which have, in some cases, followed its injudicious or untimely application.

"Engorgement and chronic inflammation of the neck of the womb," says Dr. Lee, p. 128, "are further pronounced by Dr. Balbirnie to be the most frequent causes of the opposite states—menorrhagia, amenorrhœa, and dysmenorrhœa; sterility, and, in a word, of all the six hundred ills of which Democritus affirmed the uterus to be the cause. The syphilitic wards of the hospitals of Paris have since been visited by others equally ignorant of the anatomy, physiology, and pathology of the uterus; and the fruits there reaped have been reproduced in this country in a variety of forms. Nearly half the women in Great Britain, married and unmarried, rich and poor, virtuous and vicious, have been declared by some recent writers to be afflicted with the most disgusting diseases—engorgements, indurations, inflammations, ulcerations, erosions of the os and cervix uteri, which can only be discovered with the speculum, and cured with caustic."

Then follows Dr. Lee's well known "counterblast" to the speculum in the form of a paper read to the Medico-Chirurgical Society in 1850. The principles laid down, and the facts brought forward in this paper, are pretty well known to the Profession, and caused, as it will be remembered, much controversy at that time; but we think that most readers will agree wth most of the sentiments expressed by Dr. Lee in the following extract, p. 135.

"From the age of maturity to the middle period of life, the uterus is rarely,—seldom at least, comparatively with advanced age,—affected with organic disease of any kind. Amenorrhœa, hysteria, dysmenorrhœa, menorrhagia, leucorrhœa, and various nervous affections, local and constitutional, are those from which females chiefly suffer before the age of twenty-five or thirty. An examination of the physical condition of the uterus in unmarried women, either with or without the speculum, I have always refused to make, even when requested to do so, unless pain, severe and almost constant, in the region of the uterus existed, leucorrhœa, or hæmorrhage, which did not yield to treatment, and where the symptoms did not make me strongly suspect the presence of some displacement or organic disease. In unmarried women, whatever their rank or condition in life may be, the integrity of their structure should not be destroyed by the speculum, nor their modesty wounded by an examination of any kind, without a necessity for such a proceeding being clearly shown."

The Third Report is on Fibrous Tumours and Polypi of the Uterus, with the Histories of Fifty Cases. Dr. Lee's treatment of polypi is by ligature, where the polypus is large; but when it is small and soft, it may be seized by a pair of forceps, and twisted off by the root.

The Fourth Report is on Cancerous Diseases of the Uterus, but this section contains very little novelty, and all the cases are necessarily fatal.

The Fifth Report contains observations upon the Pathology of the Vagina and Urethra, with Cases; and many of the illustrations of some rather uncommon diseases of these parts, with the remarks which accompany them, are extremely interesting.

As might be anticipated from the extensive experience of Dr. Lee, his work abounds with practical suggestions, and, although we cannot altogether admire the spirit which seems to dictate some of the passages, it will amply repay an attentive perusal.

The Journal of Psychological Medicine and Mental Pathology. Vol. V. Edited by Forbes Winslow, M.D. London: Churchill. 1852.

We cannot allow another volume of this Journal to come to a completion, without offering it a word of commendation. It maintains the high position which the Journal has always held, as the only periodical devoted to Psychology in this country, and the articles, as usual, are characterised by variety and talent. Among the other contents of this volume is an elaborate Report upon the case of Mrs. Cumming, which excited so much attention during the past year from its relation to medico-legal inquiries.

GENERAL CORRESPONDENCE.

SHOULDER PRESENTATION.

[To the Editor of the Medical Times and Gazette.]

SIR,—By the courtesy of Mr. Wiglesworth, I was favoured with a copy of his remarks, since inserted in your Number of the 14th ult, under the above title, upon a case of arm-presentation reported by me in the October Number of the *London Journal of Medicine*. Pressing occupations have prevented my even thinking of the matter till now(a) that I ask your permission to reply, I hope in the same kindly spirit which characterises his letter, to the strictures he has passed on one part of the report alluded to.

In endeavouring to prove that I am "in error," and, indeed, in his unqualified assertion to that effect, I do think that Mr. Wiglesworth himself has erred, has been rash, quoting from two books of quaint title and ancient authorship, and a third of more modern date, to "prove" against me that with which in word or thought I really am not chargeable. The notion that "shoulder presentation" had never come under notice, or that pushing back the shoulder in such a case, had never been thought of nor practised, was not entertained by me when making the remark founded on by Mr. Wiglesworth as to the case being "so singular in its new and successful mode of treatment," etc. In reporting my case of arm presentation, I would here mark the distinction, that, although arm presentation may commence with shoulder presentation, it by no means follows that every case of shoulder presentation must end in arm presentation. I did not rest its importance upon the simple expedient of pushing back the arm (I never attempted to push the shoulder, as Mr. Wiglesworth assumes), nor imagined that I was the first to think of attempting the mode of treatment pursued. On the contrary, I distinctly disclaimed this in the following reflections, which arose after describing the progress and conclusion of my case:—"Is there any novelty in this? Not much, perhaps; for the wish to return the arm has, in all likelihood, occurred to every practitioner who has found himself involved in such circumstances, and by many, probably, the attempt has been made. But it occurs to my mind, that due attention may not have been given to the conditions under which alone success in such a case might reasonably be hoped for; the chief being—adoption of the necessary expedients at a sufficiently early period of the labour, and unbroken perseverance in their employment, till it has advanced so far that the hand and arm have not space left again to descend, but are kept *in situ* by close contact with the uterine, supported by the pelvic parietes, till Nature, by her own surpassing agency, comes to aid our efforts and make all right. Anything that is new in the affair lies, I apprehend, in the careful observance of those conditions."

It was, then, the early adoption of, and unbroken perseverance in, the employment of a firm repressing power above the elbow of the presenting arm in a mentally-defined direction, varying, of course, with every "progressive movement of the arm from the position in which it was first found, on and up till it rested permanently opposite and partially beyond the left horizontal ramus of the pubes," and not merely the thrusting, removing, or pushing back of the shoulder (or of the arm either), which gave singularity to the case in its new and successful mode of treatment. Since I am on the subject, it will be as well to examine Mr. Wiglesworth's statement, that pushing back the shoulder "was the mode generally adopted in the earlier stages of the art and science of midwifery," etc., in shoulder presentations, and the proofs by which he considers it established.

The author of the "Byrthe of Man Kynde" directs, "that if the child appear and come forth with the shoulders, then must ye fair and softley thrust it back again by the shoulders till such time as the head come forward." This expression of coming forth with and thrusting back the shoulders is suggestive of a presentation and expedient for its correction which my experience does not enable me to appreciate. The expert midwife, also, as quoted by Mr. Wiglesworth, mentions that "the birth appeareth with the necke turned awry, the shoulders bending forward to the birth, but the head turned backwards and the feete with the hands lifted upwards;" and directs "in that case the midwife shall remove the shoulders of the childe backwards, that the head may appear first, for this shall easily be brought to passe, because the shoulders being removed a little, the head itself will be nearest to the orifice of the matrice." Here, too, there is an indistinctness as to the precise character of the presentation; it is no doubt classed as a form of unnatural labour, and monstrously unnatural it must be with the wry neck, shoulders bending forwards, head turned backwards, and feet with the hands lifted upwards!

(a) Page 883.

Such a description, indeed, however explicit on the point of shoulders, carries the mind away altogether from the idea of an arm presentation. Both quotations make an extremely light affair of so remarkable a case as that of shoulders presentation, the simple remedy laid down being to thrust, or put back, or remove the said shoulders, a thing much more "easily" said than done. Neither of them contains a word about the fitting time or circumstances in reference to the dilatation of the os uteri, the state of the membranes, the character of the contractions, etc., all of which it is so necessary to regard in the course to be pursued for rectifying a shoulder or an arm presentation.

The third authority quoted by Mr. Wiglesworth, viz., Mauriceau, who does give an intelligible indication of his meaning, does not at all prove the "general adoption" of pushing back the shoulder when it presented. He only says, "some advise that it should be put back to make way for the head of the infant," but actually disapproves of this, adding, "it is much better, for the reasons above alleged, to try to bring it by the foot." With all the three, however, Mr. Wiglesworth is so well contented, that he considers, "From the above quotations it will appear that the usual method in these cases was to push back the shoulders, and not to grasp the child's head in utero by the hand of the accoucheur, as stated by Dr. Mayne."

Having trespassed so far upon your columns, I have to crave indulgence while further endeavouring to defend my opinions, by showing that the method of pushing back the shoulder could not have been so "generally adopted,"—so "usual," as Mr. Wiglesworth supposes,—and that grasping the child's head in utero, or the operation of head-version, really was "the recognised practice, in arm presentations, down to the time of Ambrose Paré, who was among the first, if not the first, to discover and recommend the superior advantages of foot-version." (a)

I confidently appeal to every practitioner, whether, in any attempt he may have made to push back the birth in shoulder or in arm presentation, it has been "easily brought to pass." As to head-version or head-turning, it is scarcely alluded to by recent writers of our own country, or, if mentioned, it is so with the intention of showing its inexpedieney or impropriety. "Still," says Dr. Churchill, (b) "there are cases in which its suitability could not be overlooked, and, in consequence, we find an admission here and there of its utility. Smellie recommended it in certain malpositions of the head; Mauriceau (Mr. Wiglesworth's own Mauriceau) advises it if the neck present; and De la Motte, Melli, and Rone speak of success obtained in this manner. Le Roi preferred it generally to version by the feet. These, however, were only exceptions to the rule; it remained for Flamant, Professor at Strasburg, to recall the attention of the Profession to the operation in such a way as to procure its re-admission (at least on the Continent) into the number of valuable obstetric operations. His example has been followed by several German and French writers. Labbe, Eickhardt, and Wigland published successful cases in 1803, Schnaubert, in 1815; D'Outrepont and Regnaud, in 1825. Busch gave an account, in 1826, of fifteen cases, in which fourteen infants were born living. In 1827, Ritgen collected forty-five successful cases. Riecke has had sixteen cases. It has been eulogised by MM. Vallée, De Roche, Ubersaal, Stolz, and Toussaint. Joërg and some others advise the head to be seized and placed in position when nearest the cervix; and Gardien seems inclined to recommend it strongly if practitioners were only as well-versed in the use of the forceps as the Professor of Strasburg."

Dr. Burns, of Glasgow, (c) says, "If the patient be known usually to have a short labour, if the pains be brisk, the os uteri dilated or in a relaxed and easily dilatable state, the liquor amnii retained, and the child movable, then the head may, without any difficulty or much irritation, be placed in the proper position, with a fair and reasonable chance of success." Dewees is also mentioned as an approver of this manipulation. "It is stated as an objection," says Dr. Churchill, "to the employment of this kind of manipulation, that it is more difficult to catch firm hold of the head and to bring it to the upper outlet; that if we succeed in bringing it to the brim, we can do no more, but must then leave it to nature or use the forceps. To these and similar objections, Velpeau has returned the following answers:—1. It is not very difficult to seize the head and to exert considerable force upon it. 2. If the waters have not been long discharged, one may often without difficulty seize the vertex, and bring it to the centre of the brim, however far it may have been distant. 3. That, in general, it is better to force the head to descend by push-

(a) Lond. Journ. of Med., 1852, p. 883.
(b) Theory and Practice of Midwifery, 1842, p. 246.
(c) Principles of Midwifery, 9th ed., p. 418.

ing up the presenting part than by bringing down the head. 4. That delivering by the breech is far from being a simple and safe operation as regards the child, and it is less so than cephalic version, even if the forceps should afterwards be applied."

I think sufficient authority has been cited to support my statement as to grasping the head having been a recognised practice. It surely was no part of my duty to search out every writer who had not alluded to grasping the head in utero. Mr. Wiglesworth discovered two, and thereupon denied my correctness, as if "such a practice" had been the very last to be thought of. It is true, then, that the author of "The Byrthe of Man Kynde" has not recommended this expedient, nor any other internal manipulation; he merely directs the shoulder, arm, or even the foot, for anything I can see, to be "thrust back," in the hope, doubtless, of thus converting the case, whichever it might be, into one of natural presentation. I presume "The Expert Midwife" is equally silent on the point. Both direct thrusting back or removing the shoulders, but can Mr. Wiglesworth suppose that this is enough?

In conclusion, Mr. Wiglesworth has not only mistaken the nature of my case, as already shown, but greatly misinterpreted me in assuming that the simple act of pushing back or returning the presenting part was all I contend for as necessary in such cases. The shoulder I did not meddle with; I had repeatedly pushed back the arm to no good purpose before I resolved on the course which proved successful. I then maintained uninterrupted pressure above the elbow of the child's arm, not backwards, but in an oblique direction, varying with the nice calculation of a steersman to suit the progressively veering position of the child.

Leeds. I am, &c. R. G. MAYNE.

THE STETHOSCOPE.

[To the Editor of the Medical Times and Gazette.]

SIR,—Dr. Markham, in his letter, published in the *Medical Times and Gazette* of the 18th instant, states, "that, however little *surgeons* might be aware of the use of the stethoscope in the investigation of calculi in the bladder, *physicians* have long been acquainted with the fact." When reading the report of the case which drew these remarks from the above-named gentleman, I was myself rather struck with the heading of the report, "Novel Use of the Stethoscope," as I recollect most distinctly, while a pupil at the South Infirmary of this city, to have seen Drs. Bull and Tanner, the *surgeons* of that institution, using the stethoscope to detect calculus of the bladder in a child of about eight years old; proving Dr. Markham's assertion in one instance to be correct, that it was no "novel use of the instrument," at least here, (Cork), but showing him wrong in the other assertion,—that *surgeons* do use, and are as fully competent to use, the stethoscope, as their brethren the *physicians*. I am, &c.,

THOS. C. SHINKWIN,
Late House-Surgeon North Infirmary.

North Mall, Cork.

THE GRADUATES OF THE UNIVERSITY OF LONDON.

[To the Editor of the Medical Times and Gazette.]

SIR,—Will you allow me a short space in your valuable Journal, to assure your Correspondent, "M. B. Lond," that there is no likelihood of convocation being composed after the manner recommended by the Committee appointed by the Senate of the University? He will be pleased to know that the Graduates' Committee took a decided position against such an arbitrary selection; and, although the question is not yet definitively settled, yet there is every probability that their plan will be the one adopted. This was to admit all Graduates of five years' standing, which will include both the M.B.'s and the B.A.'s.—I am, &c.

A MEMBER OF THE GRADUATES' COMMITTEE.

FRENCH MEDICAL STATISTICS.—The *Gazette des Hopitaux* states, that in France there are 11,217 physicians, 7221 *officiers de santé*, and 5175 *pharmaciens*. These numbers give one medical attendant for every 1940, and one *pharmacien* for every 6914 of the population. What is singular is, that the richer departments have fewer doctors than the poorer; thus, in those of the north, there is one practitioner for every 2496 persons, while in the south there is one for every 1619. It is still more singular, that there are nearly 600 towns or communes with populations varying from 2000 to 8000 souls, which have neither medical practitioner nor *pharmacien*.

NORFOLK COUNTY LUNATIC ASYLUM.—Dr. Foote, Assistant-Physician to the Wilts County Asylum, has been appointed Resident Physician to the Norfolk County Lunatic Asylum.

REPORTS OF SOCIETIES.

ROYAL SOCIETY.

A paper was read on

THE SOLUTION OF URINARY CALCULI IN DILUTE SALINE SOLUTIONS, AT THE TEMPERATURE OF THE BODY, BY THE AID OF ELECTRICITY,

BY H. BENCE JONES, M.D., F.R.S., Physician to St. George's Hospital.

This paper contained the record of a number of experiments made to determine whether, out of the body, urinary calculi could be dissolved by placing them in dilute solutions of nitrate of potash and other salts, and then decomposing the solution in contact with the calculus by means of the galvanic battery. The urinary calculus was carefully dried and weighed, then fixed between the poles of a galvanic battery, after which it was immersed in a solution of nitre, and at the end of the experiment it was re-dried and re-weighed. The loss of weight gave the effect which was produced. The different calculi which had been used were also exhibited, showing the different degrees in which the various kinds of urinary calculi are dissolved when submitted to this treatment. The conclusions at which the author arrived may be thus stated: In a solution of nitre containing 20 grains to the ounce, kept at the temperature of the body, uric acid calculi can be dissolved by the aid of electricity, at the rate of from 2 to 9 grains an hour. The solution takes place at the alkaline or negative pole. In the same time, and under the same circumstances, phosphatic calculi can be dissolved at the rate of from 2 to 25 grains. The solution takes place at the acid or positive pole. Calculi, consisting of oxalate of lime, proved to be far less soluble, usually not more than half a grain an hour, and at most 2 grains being dissolved. At the conclusion of the reading of the paper, the author stated, that he had been engaged in making further experiments with a solution of nitrate of potash containing only 10 grains to the ounce; and he exhibited some large uric acid and phosphatic calculi, which had been partially dissolved by the decomposition of this solution at the surface of the calculi. He also showed a catheter or litholyte, made by Weiss, which fulfilled the conditions requisite in an instrument for effecting the solution of urinary calculi in the body. It resembled an ordinary lithotrite, but the blades were—1st, isolated so as to conduct the electricity to the surface of the stone when it had been caught; 2ndly, the external surfaces of the blades were guarded, so that in case they came in contact with the mucous membrane, no chemical action would be there set up; 3rdly, a double channel for the injection of the solution of nitre was formed inside the instrument. Lastly, the author stated, that although many difficulties would have doubtless to be overcome before he could lay the result of his experiments within the body before the Society, still they would only be mechanical difficulties. The principle, which consisted in setting up mechanical action at the spot where it was wanted, whilst elsewhere a dilute neutral solution was present, left nothing further to be desired; at least so far as the solution of uric and phosphatic calculi was concerned. At present, by the aid of the lithotrite, mechanical force is applied to the surface of the calculus, and the stone is passed in fragments. At some future time, by the aid of the litholyte, chemical force will be set up at the surface of the calculus, and it will be passed in solution, or as an impalpable precipitate.

MEDICAL SOCIETY OF LONDON.

Mr. BISHOP, F.R.S., President, in the Chair.

HYPERTROPHY, WITH DILATATION OF THE LEFT SIDE OF THE HEART, ACCOMPANIED BY ATHEROMATOUS DEPOSIT IN THE CORONARY ARTERIES AND THROUGHOUT THE AORTA.

Mr. Hinton presented the heart of a woman who had died suddenly while at church, on the evening of the 15th inst.

The patient was sixty-eight years of age. Three years ago her sister died suddenly, and, while attending her funeral, she thought she caught a cold, from which she had never since been free. About a week ago, while making a bed, she complained of feeling a "twist" in the region of the heart, which, however, entirely subsided in the course of the day. On the day of her death, her face was observed to have somewhat of a blue and congested appearance, and she had a slight cough. Her memory had been failing

for some time. With these exceptions, she had enjoyed perfect health, and was remarkably strong for her age. Her death was very sudden, no signs of life having been detected by the medical man who was first called to her. The body was examined seventy-two hours after death; it presented slight emaciation. The vessels of the membranes of the brain were full of blood. A considerable quantity of clear fluid was contained in the pia mater, surrounding but not compressing the convolutions, which exhibited senile atrophy in a very marked degree. The substance of the brain was perfectly healthy. The blood-vessels at the base were slightly diseased. No fluid in the ventricles. The abdominal organs were healthy, but full of blood. The lungs were exceedingly congested, especially the lower lobes; there were some old adhesions on both sides, but no traces of recent disease. The heart was contracted, its cavities empty; there was much fluid blood in the large vessels. The aorta, especially near the division into the iliacs, contained a large amount of atheromatous deposit, and was slightly dilated. The left ventricle was considerably hypertrophied. The mitral and semilunar valves were thickened, but not materially diseased. The muscular substance of the left ventricle was affected with fatty degeneration, but only to a slight extent; that of the right side was healthy. The coronary arteries were very much diseased, containing a large amount of atheromatous deposit, especially around the orifices of the smaller branches, several of which were much contracted, and of a bony consistence. Mr. Hinton remarked, that the immediate cause of death in this case was probably syncope, rendered fatal by the insufficient supply of blood to the left ventricle. The syncope itself might have been due either to accidental causes, or to previous disordered action of the heart, manifested by the cough, blueness of the face, and congestion of the lungs; but having (from whatever cause) occurred, the diminished current of blood through the branches of the coronary artery, together with the degenerate condition of the substance of the left ventricle, might be held to account for the absolute failure of the circulation.

Mr. Canton inquired whether any accurate microscopic examination had been made of the muscular tissue of the heart, with the view of determining the existence of fatty degeneration.

Mr. Hinton had mentioned that the muscular structure had been examined by the microscope, and that on the left side of the heart molecules of fat had been deposited in the sarcolemma, but not on the right.

Mr. Canton thought it was important to know in what situations the fatty degeneration was most conspicuous, and whether such change was most marked in the neighbourhood of the branches of the coronary arteries, which had themselves become affected with atheromatous deposit. He alluded to this circumstance, because an opinion had arisen, and was gaining ground, that in many instances fatty degeneration of the muscular structure of the heart was a consequence of disease in its nutrient vessels; such degeneration had in some cases been found most marked in the proximity of vessels whose walls had become the seats of a calcareous or atheromatous deposition; and as, generally speaking, the disease of the arterial tunics appeared more advanced than the disease of the muscular fibre, it was quite rational to believe that a deficient supply of arterial blood was furnished in consequence of the unsoundness of the nutrient vessels, and hence the organism was unable to support its high vitality, but passed into a lower grade of structure.

After some short observations on the specimen by Dr. Camps, the subject dropped.

Mr. de Méric read a paper on

PROPHYLACTIC AND CURATIVE SYPHILISATION.

The author introduced the subject by alluding to the propriety of thoroughly sifting and investigating new theories and plans of treatment, and showed that the prophylaxis of syphilis had been seemingly successful in Paris in 1812, and was stated, in our own days, to be of the simplest kind. Curative inoculations had been tried, with some appearance of favourable results, by Percy; but such reckless implanting of the syphilitic poison had never been thought of until lately, when it was proposed to saturate human beings with the virus to cure existing symptoms, or shield healthy individuals from casual infection. Mr. de Méric passed in review the four principal systems of syphilisation which had been started, and successively showed that the theory and practice was supported by neither facts, arguments, nor analogies. He stated that great mischief had been done by the syphilisers; that deaths had occurred both in France and Italy; and that it was certainly not without reason that M. Ricord had thrown the whole weight of his oratorical powers and reputation in the scale against syphilisation.

The author thought that there were other means of arresting the spread of syphilis besides the wild schemes of the syphilisers; viz., the granting of every facility for cure to those who had erred, and were suffering under the disease. He was sorry to say that some of our large hospitals excluded syphilis from their wards, and that an antiquated and mistaken notion existed among the Governors, that by driving away the indigent affected with syphilis, the former would indirectly contribute to the decrease of the disease. Mr. de Méric expressed his belief, that investigations into the nature and treatment of syphilis, aided by chemistry and the microscope, would be of great service, (instancing Dr. Tyler Smith's researches on the uterine and vaginal discharges,) and that a disease, upon which M. Ricord had thrown so much light, would become more and more manageable the better we became acquainted with its Protean forms.

Mr. Richardson remarked, that the evidence given as to the value of the prophylactic remedy employed by Calderon, who had died without disclosing his secret, was in his opinion worthless, There were several causes, wholly independent of the application, which might have operated to render the virus innocuous, and he thought no confidence could be placed in the power of the prophylactic agent employed by Calderon unless clear and definite information could be furnished respecting it.

Mr. Henry Lee observed, that there was generally some foundation for popular belief, and he conceived that phenomena were occasionally manifested in the progress of syphilis which might be considered to countenance the theory of syphilisation. He had himself noticed, that when numerous and extensive local sores prevailed, in some cases no secondary symptoms followed; and in others these symptoms were slightly marked. It appeared to him that a long-continued and extensive primary sore exhausted the powers of the syphilitic virus, and left it little or nothing wherewith to attack the constitution. The author, in one part of his paper, had spoken in approving language of the practice of inoculation in syphilis, but he (Mr. Lee) strongly doubted whether this proceeding were really so advantageous as was generally considered. He thought it by no means certain that secondary symptoms would follow a true inoculated chancre; and, on the other hand, he had seen secondary symptoms arise when inoculation had failed to take effect. Two cases in the Lock Hospital under his care had furnished these data. In one patient, who was inoculated from a phagedænic sore, no chancre exhibited itself; yet before he left the hospital that individual suffered with secondary symptoms. In the other instance inoculation produced a true chancre, but up to the present time no secondary symptoms had appeared. He would conclude by repeating his impression, that when a number of primary sores showed themselves, and remained a long time discharging, the syphilitic poison was by their agency, in some instances at least, eliminated to a certain extent from the system, and therefore the patient was more or less guarded against the occurrence, or, at all events, against the severity of secondary symptoms.

Dr. Chowne said, that one speaker had characterised the experiments, which had been instituted to test the efficacy of syphilisation, as absurd; and he would add, they were worse than absurd, they were wild, wicked, and reasonless. He thought, however, that Mr. de Méric's paper was entitled to the highest praise, for the force of its arguments, and the vigour and chastity of its language, which was the more deserving of admiration as it showed the proficiency that even a foreigner might attain in English composition. He could see no analogy between vaccination and inoculation for small-pox and inoculation for syphilis. The two affections were very different; small-pox was a disease to which the whole human race were liable, its duration was comparatively brief, and, when eliminated from the system, it rarely left any baneful effects behind; whereas syphilis was not a disease to which all mankind were naturally liable, but only certain individuals, in consequence of their own profligacy; moreover, when once established, it ran a long and calamitous career, and, in the opinion of some surgeons, was never entirely eradicated from the system. He should lament extremely to see a practice introduced into this country which was, he felt persuaded, fraught with danger, and had been very properly stigmatised by a preceding speaker as unjustifiable and horrible. Before resuming his seat, he should like to ask Mr. de Méric if patients who had contracted syphilis by inoculation were liable to transmit it to their offspring?

Mr. Dendy, after complimenting the author on the excellence of his paper, remarked, that before they entered into a discussion respecting the merits of the practice, there were moral considerations opposed to it, which it was impossible to disregard. If such a system should ever prevail, he believed it would afford a frightful premium to licentiousness. Many of the cases in which inoculation had been tried and reported successful, might, he believed, be found to derive a relief from existing syphilis, or an immunity from subsequent contamination from other causes, such as the exhaustion of the syphilitic poison after long endurance, the change

wrought in the constitution by repeated attacks of the malady, or, as Mr. Henry Lee had pointed out, the elimination of the syphilitic poison wholly or partially by the prolonged persistence of numerous local sores. Inoculation had been tried in numerous diseases besides small-pox, and in some he thought with success. It was well known, for example, that Dr. Ballard, when at Constantinople, inoculated himself with the plague virus, having previously diluted it with oil. A mild train of symptoms followed; but Dr. Ballard believed that he thus protected himself against the plague, and he was accustomed to recommend the plan as a sure and safe prophylactic. Now, if any experiments in syphilisation were made in this country, he Mr. Dendy hoped that the syphilitic virus would be first diluted by the addition of simple fluid, so that if no good arose, at least no serious mischief might be occasioned by the practice.

Dr. Radcliffe felt compelled to state, that the question had not been impartially considered; and he conceived, that M. de Méric, being a follower and pupil of Ricord, who, it was well known, had vigorously opposed syphilisation, had treated the subject rather in a spirit of hostility than otherwise. He would observe, that the case of Dr. L., the German physician, who had been produced at the Académie de la Médecine by Ricord, was not considered a fair example by M. Auzias Turènne and the other upholders of syphilisation. It was a fact which could not be surmounted or explained away, that there were cases in which the manifestation of a fresh chancre had been followed by the disappearance of long-standing syphilitic symptoms which had previously resisted all sorts of treatment. Dr. Radcliffe referred to a case whose particulars were related in the *Gazette des Hopitaux*, in which tertiary symptoms had at length departed under the influence of repeated inoculation. The question debated at the Academy was not so much referrible to the utility of the practice as on the moral propriety of employing it. The practice itself was favourably esteemed by Malgaigne and others, whose high reputation should induce us to pay respect to their opinions. He Dr. Radcliffe did not advocate syphilisation, but he thought it should be considered fairly and dispassionately. Whatever might be the issue of subsequent investigation, two important facts had been established by the researches of M. Auzias Turènne, viz., that syphilis might be communicated to animals, and that secondary sores were capable of furnishing matter, the inoculation of which would produce a chancre.

Mr. Robinson thought the inoculation for syphilis in healthy persons quite unjustifiable, and likely to injure seriously the constitutions of those who submitted to it, and the health of their offspring. Inoculation for syphilis could not be compared, as a point of treatment, with vaccination, for vaccination was employed to guard the community against a scourge from which all alike might suffer, while the spread of syphilis was dependent on the unrestrained vices and licentious conduct of individual persons.

Mr. Clarke observed that Mr. Henry Lee seemed to consider the long continuance and number of primary sores a sort of safeguard against secondary symptoms, and in proof of this he might remark, that in Nubia, where primary sores always acquired a frightful intensity, and sometimes swept away the whole of the external organs of generation, secondary syphilis was unknown.

Mr. de Méric, at the end, regretted that his paper had been somewhat long, and begged the fellows who had so kindly spoken of it to accept his best thanks. He could not at so late an hour enter into a full discussion, though it would have given him much pleasure to do so, since the points which had been raised were of the greatest interest. Mr. De Méric then stated, in answer to Mr. Richardson, that he quite agreed with him as to syphilitic ulcers healing without mercury; but the prophylactic, which had been used by Calderon, had prevented the springing up of sores after inoculations. He would also mention, that M. Ricord had clearly made out that an individual suffers from secondary syphilis only once in his life. Mr. De Méric considered that the remarks of Mr. Lee were deserving of the greatest respect, as his (Mr. Lee's) opportunities were excellent, and his reputation well established. He (Mr. De Méric) was, however, somewhat startled at finding Mr. Lee leaning towards syphilisation. Surely it would not be maintained in our days, that the extension and persistence of a sore tend to destroy the virulence of the poison. Boerhaave harboured this idea, but it really was no longer tenable. The specificity of a sore might be destroyed by phagedænism, but the occurrence of secondary symptoms must depend on the fact of the chancre having been indurated or not. With Mr. Lee's notions, it would be an easy matter to prevent secondary symptoms by enlarging and keeping up syphilitic ulcerations. Mr. Lee might have noticed that large buboes were followed by slight eruptions, but this was certainly not a general law; and the fact had not been observed frequently enough to deserve attention. Mr. De Méric was astonished that Mr. Lee made inoculations for any other purpose than that of diagnosis. Hunter and Ricord had no other intention when they carried on their experiments, and did not resort to inoculations to learn whether secondary symptoms would occur or not. A case under Mr. Simon, at St. Thomas's Hospital, was mentioned by Mr. De Méric, to show that inoculations and the microscope were used to establish a differential diagnosis between chancre and cancer of the penis. The author of the paper was extremely obliged to Dr. Chowne for his kind words, and sure that the latter would not hesitate to side with him in the repudiation of syphilisation. In answer to Dr. Chowne's inquiry, Mr. de Méric was sorry to say, that secondary syphilis, either accidentally caught or artificially implanted by M. Auzias, was doubtless transmissible to the patient's offspring. In answer to Mr. Dendy, Mr. De Méric would observe, that the dilution of the pus, advised by Mr. Dendy, had some analogy with the vaccination advocated by Mr. Diday, of Lyons. This practice had, however, been found sadly wanting. Dr. Radcliffe must be labouring under a mistake when he stated that the discussion at Paris had been confined to one case; the whole history of syphilisation had been broached, and largely gone into. M. de Méric had annexed M. Zelasche's case to his paper, but had not read it, for fear of fatiguing the attention of the Fellows. The case is most distressing and condemnatory of the practice of syphilisation. Dr. Radcliffe had touched upon the transmissibility of secondary symptoms; this question was too important to be cursorily treated, but Mr. de Méric would be glad to discuss it at a future period. Mr. Clark's observations were certainly interesting, but it was probable that secondary symptoms depended, in Nubia as in England, on the induration or non-induration of the original chancre. Mr. de Méric concluded by offering his best acknowledgments to the President and the Fellows for the courteous attention they had given to his paper.

RETROSPECT OF PRACTICAL THERAPEUTICS.

Ol. Morrhuæ.—In Sweden cod-liver oil has for some time been employed as an external application in the treatment of cutaneous maladies, and from that country it has recently been introduced into English practice. We have had frequent opportunities of watching its effects as prescribed by Mr. Paget, in the out-patient's room of St. Bartholomew's Hospital. The class of cases for which it appears most applicable, is that of chronic eczematous eruptions, unattended by acute inflammation of the skin or general pyrexia. In abating the troublesome itching which frequently accompanies this disease, especially in old people, it has manifested powers decidedly superior to those of any other application with which we are acquainted. In the majority of instances it can, of course, only be expected to assist constitutional treatment, not to supersede it.

We have as yet had no opportunity of forming an opinion respecting the proposed inunction of the oil in cases of phthisis, where the stomach cannot take it. Whilst on this subject, however, we feel inclined to strongly recommend the practice of exhibiting it *simultaneously with tonics*, as iron, quinine, etc., which is now adopted with great success at several hospitals. The digestion and assimilation of the oil appears to be much aided by such combination. In the treatment of cutaneous struma and lupus (a) at the Hospital for Skin Diseases, it is usual to administer along with the oil small doses of mercurials, which are often continued for many months. The success attending this practice is very great, and appears to much exceed that which results from the administration of either drug alone.

Ammonio-sulphate of Copper.—At the Westminster Hospital Dr. Hamilton Roe has recently employed this salt very successfully in the treatment of a series of cases of severe chorea, the patients being mostly children under fourteen years of age. In several the sulphate of zinc and sesquichloride of iron had been tried previously, and without benefit. The dose given has been from half a grain to a grain three times daily. Its use in this complaint is not novel, although not much resorted to in this country. In Italy it has gained a considerable reputation, and is known by the name of the "specific of Stissero." Mr. Startin has for some time been accustomed to prescribe a long continued course of the ammoniated copper in malignant diseases, and seemingly with some good results. Its action is

(a) For an illustration of the treatment of lupus, the reader is referred to the *Medical Times and Gazette* for August 7, 1852, p. 141.

probably that of a tonic. In several cases the health of the patient has appeared to improve very perceptibly. Scirrhus of the breast and cancroid ulcers of the skin are the forms in which it has principally been tried. The dose has ranged from the eighth to a quarter of a grain three times daily, and has often been continued for many months. We believe it has been employed for nearly similar purposes in veterinary medicine.

Treatment of Strumous Ophthalmia.—The great benefit often derivable from counter-irritation to the eyelids in this most troublesome disease is, we suspect, not generally known. At St. Bartholomew's Hospital, Mr. Wormald is in the habit of first moistening the skin of both lids, and then smearing a stick of lunar caustic over the wet surfaces. The cuticle is, as a matter of necessity, blackened, and usually desquamates in the course of a few days, without the production of any pain. The application should be repeated every week or fortnight, according to the delicacy of the patient's skin. Its use commonly affords a surprising degree of relief to the distressing intolerance of light which mostly accompanies the affection. At the Royal Ophthalmic Hospital it is the practice to paint the tincture of iodine over the lids every three or five days, for the same purpose. Its *modus operandi* is no doubt similar, and, of the two, it appears to be the milder and more manageable remedy. We may add, that Mr. Wormald frequently employs his plan in the treatment of granular lids, and with good results. In order to the reproduction of the repeatedly destroyed cuticle, a determination of blood to the skin, and away from the conjunctiva, is kept up. On this derivative action its use doubtless depends, a process of chronic inflammation on one surface being thus cut short by artificially originating a necessity for increased nutrition on the other.

Treatment of Acne and of Boils.—We have classed these diseases together because they appear to depend very frequently on similar states of the constitution, and are also amenable, for the most part, to similar plans of treatment. The great degree of success which we have observed to accrue from that pursued at the Hospital for Diseases of the Skin, makes us desirous of attracting to it the attention of the Profession. It consists, essentially, in the combination of ferruginous salts with saline aperients.(a) In the common forms of acne, as acne simplex and punctata, Mr. Startin usually prescribes ferri sulphat. gr. ij., magnes. sulph 3i., ter die sumend.; ordering also a small portion of an ointment, containing the ammonio chloride of mercury, gr. x. ad. 3j., to be applied to each pimple every night. The acne indurata is characterised by much more of inflammatory condensation of tissue, for the removal of which it is usually necessary to excite the absorbents to increased action, and the iodide of iron, in doses of gr. iij., three times daily, appears to be its most efficient remedy. All who have attentively watched the phenomena attendant on the furunculous epidemic which has been so rife of late years, will be aware that its outbreak in individuals has been very frequently preceded by headache, giddiness, lassitude, dyspepsia, and other evidences of a disordered state of the circulating fluids. This granted, and we have at once a scientific basis on which to ground the requisite treatment. By the exhibition of full doses of iron, in combination with saline purgatives, the blood is at once depurated and renovated. The usual prescription at this hospital is mist. ferri acid. 3iij. ter die, and under its use the improvement in the general health is often no less manifest than the rapid subsidence of the local disease. With greater care in regard to purgation, the same plan may be adopted in cases of small carbuncles.

Sulphuric Acid in Diarrhœa.—Within the last few months this treatment has been tried at several of the metropolitan hospitals, and with very various results. We hope before long to allude to the subject more at length.

Destruction of Indurated Glands.—Mr. Coulson has lately revived in St. Mary's Hospital, the old practice of applying the potassa fusa over glands in a condition of chronic enlargement. It is well known that it is often difficult to get them when indolent either to recede or progress, and that the cure is generally a very slow affair. In the case of one of this character, in the groin of a man, by twice applying the escharotic, Mr. Coulson destroyed both skin and gland; the sore which was left assumed a healthy appearance and very rapidly healed. Of course the plan must not be tried in parts where a cicatrix is of any consequence.

Kousso.—For promoting the expulsion of teniæ this drug appears to maintain its high reputation, and being now obtainable at a moderate cost it is in very frequent use. We fear it must be admitted that it but rarely brings away the head of the animal. Such, we are informed by Dr. Peacock, who has used it largely and carefully examined the expelled entozoa, is the result of his experience.

(a) Mist. ferri acid. ℞ Magnes. sulph. lb. iss., ferri sulph. 3j., acid sulph. 3ij., decoct. quassiæ Css.—Pharmacopœia of the Hospital for Cutaneous Diseases.

MEDICAL NEWS.

Royal College of Physicians.—At a quarterly meeting of the *Comitia Majora*, held on Wednesday, Dec. 22, the following gentlemen, having undergone the necessary examinations for diploma, were admitted members of the College:—

Beck, Dr. Snow, 9, Langham-place.
Robinson, Dr., Newcastle-upon-Tyne.
Whitley, Dr., 33, King-street, Borough.

Also, Dr. Powell, of the Mauritius, was admitted an Extra-Licentiate.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, December 23, 1852:—

Bailey, John Lock, Cambridge.
Barnes, John Wickham, Bath.
Bullock, Henry, Reading.
Davison, John, Wolsingham.
Dood, James Sherwood.
Folker, William Henry, Oxford.
Pinyon, Peter, Ashburnham, Sussex.
Sommens, John Augustus, Liverpool.
Teray, George, Northampton.
Wild, Thomas, Ramsbottom, Lancashire.

Royal Institution of Great Britain.—Professor Faraday commenced his annual Christmas course of six lectures on Chemistry adapted to a juvenile audience on Tuesday last.

APPOINTMENTS.

Naval.—Surgeons John King (1846), to the Argus steam-sloop; Henry Edmonds, M.D. (1848), to the Desperate steam-frigate; John H. Patterson (1845), to the Barracouta steam-sloop at Sheerness; Edward Hodges Cree, M.D. (1843), to the Odin steam-frigate; James Harvey (1847), to the Medea steam sloop at Portsmouth; Edward D'Avergne (1852), to the Cruizer steam-sloop at Woolwich; James G. Buchanan (1846), to the Amphion steam-frigate. Assistant-Surgeons Joseph Coulter, M.D. (1845), to the Amphion steam-frigate; John Eccles Hamilton (1845), to the Odin steam-frigate; James Henry (1842), to the Argos steam-sloop; Francis Anderson (1845), to the Desperate steam-frigate; John Gunn (1846), to the Impérieuse, 50, screw steamship; Augustus R. P. Preston (1846), and William Beresford C. Christy (1846), to the London, 90, at Portsmouth; John Mortlock (acting) to the Barracouta steam-sloop; John C. Inglis (1847), to the Medea steam-sloop; William F. Carr (acting) to the Cruizer steam-sloop. Surgeon Robert Grigor (1846), to the Impérieuse, 50, screw steam-frigate, at Woolwich.

Military.—20th Foot: Acting Assistant-Surgeon John Meane to be assistant surgeon, vice Cole, promoted in the 1st West India Regiment. 1st West India Regiment: Assistant-Surgeon Robert John Cole, M.D., from the 20th Foot, to be surgeon, vice John Edmonstone Stewart, M.D., who retires on half-pay.

DEATHS.

Agaa.—Oct. 23, at Tangalle, Ceylon, Staff-Assistant Surgeon Rowland Agar. He had been employed at Hambantotte, where for a long time he had suffered from fever, and was on his way to Galee for change of air.

Bruce.—We regret to learn the unexpected decease, in Victoria-square, Grosvenor-place, of a distinguished army surgeon, Samuel Barwick Bruce, M.D., M.R.C.S., L.S.A., of Ripon, Yorkshire, for many years surgeon to the Forces. Dr. Bruce was born January, 8th, 1786, the second son of Mr. Barwick Bruce, and the grandson of the Hon. J. O. Bruce, of Gartlet, county of Clackmannan (who was some time Judge of the Court of Common Pleas, in Barbadoes), by Jane, the daughter of General Samuel Barwick, who was Governor of that Island. Dr. Bruce entered the medical department of the army in 1804, but saw

some of his earliest service afloat under Lord Nelson, in 1805; he was present at the capture of the Danish islands of St. Thomas, St. John, and St. Croix, in 1807, and he subsequently served at the siege of Fort Desaix, Martinique (for which he had a medal and clasp); at the capture of Les Saintes, near Guadaloupe, at the bombardment and driving from their anchorage of the French fleet, in 1809; at the capture of Guadaloupe (for which also he received a medal and clasp), as well as at the capture of the adjacent islands in 1810. Dr. Bruce served in the Peninsula in 1813, in America in 1814 and 1815, and was present at the severe actions before New Orleans in January, 1815; at the capture of Fort Boyer, etc. He joined the army in the Netherlands, under the Duke of Wellington, in May, 1815; was present at Waterloo, and at the subsequent capture of Paris. He died suddenly, after an apoplectic seizure, on Friday, December 24th, in his 67th year.

Deane.—Nov. 8, at Bombay, Assistant-Surgeon Henry Deane, of the Bombay Army. The deceased gentleman only joined the service in January, 1848.

Gray.—Nov. 10, at the Presidency of Bombay, Surgeon Peter Gray, in medical charge of the 2nd Battalion Artillery, quartered in Fort George. The deceased gentleman entered the service in 1831, and obtained his Surgeoncy in June, 1846. He was for some time Surgeon to the Marine Battalion, and was universally esteemed by those who had the pleasure of his acquaintance, as a perfect gentleman and a well-informed man. He has left a wife and large family to deplore the loss of one of the best of husbands and kindest of fathers. He was a brother of Dr. William Gray, of the Bombay service, who died in 1846, both being sons of an able and estimable Scotch clergyman well known in this Presidency. His death gives promotion to Senior Assistant-Surgeon C. R. O. Bloxham, 2nd Grenadier N.I., who entered the service in July, 1839, and has thus been upwards of thirteen years getting his surgeoncy.

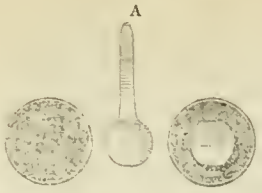
St. Thomas's Hospital Class Examinations.—We have been informed, that at the recent half-sessional examination for prizes at this hospital, a proportion nearly equal to two-thirds of the students entered the lists. This is as it should be, and reflects credit, both on the students themselves, and on the system by which such general competition for medical honours is elicited.

Hospital for Consumption and Diseases of the Chest, Brompton.—Dr. Wadham has been elected to the office of Assistant-Physician to this hospital. The election is entirely in the hands of the Committee of Management.

Epidemiological Society.—At the ordinary meeting, to be held on Monday, Jan. 3, 1853, at the house of the Royal Medical and Chirurgical Society, at half-past 8 p.m., a paper will be read "On the Relations of Vaccination and Inoculation to Small-pox," by Dr. Waller Lewis.

The Yellow Fever.—Southampton, Dec. 23.—The Royal Mail steamship Orinoco has to-day been released from quarantine. We are informed, that the data upon which the release has been effected are founded on a strict inquiry, instituted by Mr. Wiblin, which resulted in a report, that the last case of fever was that of Mr. Stephens, a passenger, whose first symptoms of attack, in the shape of black vomit, occurred on the 13th inst.; and, as ten days have now elapsed since that occurrence, Sir William Pym telegraphed, last night to the effect, that, if no fresh case should have appeared, pratique was to be immediately granted at the expiration of the stipulated quarantine period of ten days. We understand that not even a dose of medicine has been given to any of the passengers or crew for the past four days, from which it is to be inferred that the whole of the invalids are doing well, and that no further fatal case may now be apprehended. The Lords of the Admiralty, it is understood, sent out instructions to the West Indies by the last packet (La Plata), to prohibit the sending home of yellow fever invalids by the Royal Mail steamships, or of distressed British subjects, supposed to be labouring under, or recovering from, attacks of yellow fever. In both the Plata and the Medway the breaking out of yellow fever was clearly traced to the invalid seamen taken on board in the West Indies, who introduced the epidemic to those vessels, and such seamen are no longer to be taken on board.

Paracentesis Thoracis.—An ingenious and very simple expedient for preventing the entrance of air into the chest during the performance of the above operation has been shown to us by Mr. Hutchinson, the Clinical Assistant at the City of London Hospital for Chest Diseases. It consists in the adjustment of a little flap of soft washleather over the orifice of the canula in such a manner as not at all to impede the exit of fluid, but to act as a valve in entirely preventing the entrance of air. The mode in which this is accomplished will be at once seen by a glance at the accompanying woodcut. The small end of the slip of leather (A) is passed through the chink in the rim of the canula, and the broad portion allowed to hang over its orifice. The leather should be very thin and flexible. Before using, it should be well moistened with warm water. It of course interferes in no way with the fitting of the trocar within the canula. The contrivance is an improvement on that used by Trousseau, who placed a skein of silk over the mouth of the instrument. We think it well calculated to supersede the more complicated instruments now employed for the performance of this important operation.



Census of the United States.—The population of the United States has increased 357 per cent. during the last 50 years. In that same period the population of France has increased but about 30 per cent. The population of the United States is now increasing at the rate of about 3 per cent. per annum, while that of all Europe is increasing at about the rate of 1 per cent. per annum. The census returns indicated that, of 24,000,000 of people, only 2,250,000, or less than 10 per cent., were born in Europe—or, in round numbers, 1,000,000 in Ireland, 500,000 in Germany, 250,000 in England, 100,000 in Scotland and Wales, half as many in France, 150,000 in Canada, and 100,000 in all other countries. Of the total population the deaf and dumb are 9717; the blind, 9702; the insane, 15,768; the idiotic, 15,706. Of these the coloured deaf and dumb are but 632; coloured blind, 1715; coloured insane, 612; coloured idiots, 1476. That is to say, the coloured persons afflicted with these various infirmities are fewer in proportion to their numbers than the whites. Of paupers the census reports only 134,972 as having received public charity during the year preceding June, 1850, and only 50,353 as actually receiving a subsistence from the public on the 1st of June in that year. Of these nearly three-fourths (36,916) were natives.

India.—From Scinde we learn that the wing 64th Foot had been ordered to quit Hyderabad, the men being nearly all sick and unfit for duty. At Peshawur, in the beginning of November, there were 1700 men sick. At Mooltan a great deal of illness also prevailed. The 83rd Foot at Kurrachee continued to suffer very severely from fever, and upwards of 160 men, with a large number of women and children, were in hospital. Dr. Rooke is highly spoken of for his extreme kindness and attention to the sufferers.

Mortality Notabilia.—In the week that ended last Saturday, the number of deaths registered in the metropolis was only 871. In the previous week it was 1041; the present return, therefore, shows a decrease of 170. In the ten corresponding weeks of the years 1842-51, the average number of deaths was 1138; which, if a correction is made for increase of population, gives a mortality of 1252 for the present time. The mortality was lower last week than in any of the corresponding weeks; and, so far as a conclusion can be drawn from former experience, the present state of the public health must be considered satisfactory. Fatal cases, arising from epidemic diseases, declined from 211 in the preceding week to 162 in the last; those from diseases of the respiratory organs fell in the same time from 161 to 130. The corrected average for the former class is 255; that for the latter 254; hence it appears that a great diminution has recently occurred in the mortality of both.

Asiatic Cholera.—In the sub-district of Cavendish-square, at 32, Wimpole-mews, on 20th December, a girl, aged 11 years, died of "Asiatic cholera (24 hours)." Mr. Tookey, the Registrar, has received the following report on this case from the medical attendant, Mr. Joseph, M.R.C.S.:—"A most marked and unequivocal attack of this disease. The girl had been quite well and at church on Sunday, was taken with ordinary diarrhœa at night, for which a chemist prescribed. The diarrhœa continued all the next day, the character of which could not be ascertained. I was sent for at ten p.m.; the purging had then ceased, continual restlessness, eyes sunk in the head and of a glassy appearance, the entire body cold, and covered with the characteristic blue tinge; no pulse perceptible at the wrist, moaning incessant, and partial insensibility. Death occurred an hour afterwards before anything effective could be done. The father is a groom, and lives over his master's stables; all his family have more or less diarrhœa at present. As surgeon for the Rectory sub-district during the existence of cholera in 1849, I had nearly 400 cases under my care,

but at no time had one with symptoms so well marked and severe as the above."

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·746 in. The mean temperature of the week was 46·8°, which is 7·8° above the average of the same week in ten years. The mean daily temperature was above the average on every day of the week. It was highest on Monday, when it rose to 51·4°, which is 11·8° above the average, and lowest on Thursday, when it fell to 39·8°, which is 1·1° above the average. It rose on Friday and Saturday to about 49°, or 11° above the average. On Thursday the wind was E.S.E.; in the rest of the week generally in the south west. The mean difference between the dew-point temperature and air temperature was 6·1°.

DEATHS *in the Metropolis for the week ending Saturday, December* 25, 1852.

Causes of Death.	Dec. 25. 0	15	60	All Ages.	Sum of Ten Weeks.
All Causes	382	301	172	871	11577
Specified Causes	382	301	172	856	11256
1. Zymotic (or Epidemic, Endemic, and Contagious) Diseases ...	125	32	4	162	2322
Sporadic Diseases:					
2. Dropsy, Cancer, and other Diseases of uncertain or variable seat ...	5	18	12	35	479
3. Tubercular Diseases	43	96	6	145	1672
4. Diseases of the Brain, Spinal Marrow, Nerves, and Senses ...	46	29	36	111	1255
5. Diseases of the Heart and Blood-vessels	5	22	14	41	395
6. Diseases of the Lungs and of the other Organs of Respiration ...	67	33	30	130	2309
7. Diseases of the Stomach, Liver, and other Organs of Digestion...	20	29	20	69	637
8. Diseases of the Kidneys, etc. ...	1	7	6	14	124
9. Childbirth, Diseases of the Uterus ...	13	1	14	135	
10. Rheumatism, Diseases of the Bones, Joints, etc.	...	8	3	11	74
11. Diseases of the Skin, Cellular Tissue, etc.	2	1	...	3	18
12. Malformations	1	...	...	1	32
13. Premature Birth and Debility ...	24	1	...	25	227
14. Atrophy	17	...	1	18	181
15. Age	...	...	34	34	588
16. Sudden	6	...	4	10	251
17. Violence, Privation, Cold, and Intemperance	20	12	1	33	557
Causes not Specified	...	...	...	15	121

BOOKS RECEIVED.

Egan on Syphilis.

Carpenter's Human Physiology.

Ward on the Growth of Plants in Closely glazed Cases.

Mohl on the Vegetable Cell. By Henfrey.

Dr. Ogilvie's Introductory Lecture at the Opening of the Medical Classes of Marischal College and University, Aberdeen.

TO CORRESPONDENTS.

[To the Editor of the Medical Times and Gazette.]

Sir,—In Mr. Braithwaite's letter on "Sulphuric Acid in Diarrhœa," in your number of the 18th inst., he says, "I gave *large* and oft-repeated doses to adults, commonly *one minim*," etc. Is not this a misprint for drachm? I have used it repeatedly with success since I first saw it mentioned, and have given twenty minims in simple water and a little syrup; so that the sulphuric æther has not cured my patients at least.

Dover. I am, etc. John Walter.

[To the Editor of the Medical Times and Gazette.]

Sir,—In your Journal of to-day, there appears, under the head "Progress of Medical Science," an extract from *L'Union Medicale*, on the employment of an infusion of ash-leaves for medicinal purposes. The extract, as it reads, would lead many to suppose that the authors of it, Drs. Pouget and Peyraud, were the first medical men who employed ash-leaves in the treatment of disease; a supposition which is not strictly correct.

The leaves of the common ash-tree, the seeds, the soft twigs, and the bark, were all long ago used as medicines. A physician in 1726—Blancard—in writing on the ash-tree, says, "The seed powdered and taken in wine forces the urine; the juice of the leaves and of the tender twigs taken in the morning daily, in small quantity, is said to do good in dropsy; the salt of it provokes sweat and urine; one drachm of the seeds powdered and taken in wine, is also beneficial in dropsy." (Physical Dictionary.) There are some practitioners in this country in the present day also, who administer an infusion of ash-leaves as a purgative. I remember that a few years ago, whilst attending botanical lectures in the Anderson's University, Glasgow, the lecturer, Mr. Joseph Bell, drew especial attention to the purgative qualities of the ash leaf, and stated that he had often employed an infusion of ash-leaves instead of an infusion of senna, and with admirable success. Having never tried the effects of an infusion of ash-leaves myself, I cannot speak of its medicinal worth from personal knowledge, but I am sure that should this matter fall under the notice of Mr. Bell, he could supply the Profession, with much valuable information on the subject.

With reference to the infusion as a specific remedy for gout and rheumatism, I should be inclined, with great deference, of course, to suspect that it, like every other popular specific, will be found, eventually, to be useful only in so far as it may possess one or other of the diuretic, diaphoretic, or purgative properties which have previously been ascribed to it.

I need scarcely add that this note is written from no wish to detract from the merits of the two French physicians to whom reference has been made above. I desire merely to state that the ash-leaf has been used medicinally by both ancient and modern practitioners, and that certain important properties have been assigned to it. I am, etc.

Mortlake. B. W. Richardson.

[To the Editor of the Medical Times and Gazette.]

Sir,—Among the various ways of applying cod-liver oil outwardly, that of applying it to the chest has been the most frequently used, but great inconvenience has arisen in consequence of its soiling the patients' clothes. The idea of applying it upon piline suggested itself to me a short time since. If covered with oiled silk, I imagine it would entirely prevent the nuisance already named. I have not heard of its being used before in the way described, and therefore send it to you, that if you think proper, you may give it a corner in your widely-circulated Journal.

Nottingham. I am, etc. A. L. W.

Mr. Stokes, of Nailsworth, and many other Correspondents, are thanked for the expression of their favourable opinion of our exertions in behalf of the General Practitioners of this country. We shall not fail to continue to uphold the rights and privileges of this numerous, intelligent, and important class; and shall always claim for the different sections of the Profession their due honour and respect. Our only wish is to no justice to all.

Suum Cuique.—We have repeatedly stated that our Correspondents must favour us with their names; not necessarily for publication, but as guarantees for their good faith. We cannot see any reason for departing from our established custom on the present occasion.

Sugeon Dentist (Old Burlington-street).—A College of Dentistry has been established for some time in New York. We are decidedly of opinion that such an Institution is unnecessary in this country.

M.R.C.S. and L.A.C. is much mistaken if he imagines that our columns are open to such communications as he has forwarded. Speaking generally, we entertain great contempt for men who anonymously abuse the conduct of their brother practitioners; and the attempt to do so much mischief in such a manner does not evince a very honourable feeling or much confidence in the justice of the charges brought forward.

Students.—We are ignorant of the cause of Mr. Pollock's paper not having been published in the "Transactions of the Medico-Chirurgical Society." It is entitled, "An Abstract of Five Hundred and Eighty-three Post-mortem Examinations of the Uterine Organs made at St. George's Hospital from 1841 to 1850; illustrating the Pathology of the Uterus, Fallopian Tubes, Ovaries, Broad Ligaments, and Vagina;" and it will be found in the Number of our Journal for the 7th February, 1852.

Dr. Herbert Barker.—We regret that the crowded state of our columns prevents us from complying with your request. A reference to the contents of our present Number, and our announcements for succeeding Numbers, must plead our apology for declining what our inclinations would certainly lead us to concede.

R. T. Hume.—Priessnitz, the founder of hydropathy, died at Graefenberg on the 26th November, 1851, in his fifty-third year. His son-in-law, Ujhazy, a Hungarian, has since conducted the establishment.

Medicus, Plymouth.—A report of the paper read by Dr. Radcliffe before the Medical Society of London on "the Pathology of Affections allied to Epilepsy," appeared in our Journal of the 20th of November. It well merits a careful perusal.

Dr. B.—Any authentic information on the subject will be acceptable. We are determined to exterminate the quacks in question, if possible.

A Surgeon, Berwick-upon-Tweed.—The points you raise cannot be answered positively. We think you would probably recover fees for midwifery cases under the circumstances, and should consequently advise your trying the question in the County Court, if necessary. The expenses of doing so will be very slight. We shall be glad to learn the result for the guidance of others, if you follow our recommendation.

A Third Year's Student.—The regulations laid down by the Director-General of the Medical Department of the Army are rigidly adhered to. In reply to your other questions, apply at the office, 13, St. James's-place, St. James's-street.

COMMUNICATIONS have been received from—

Dr. Burrows, Bartholomew's Hospital; Dr. Munro, Moffat, Dumfriesshire; Dr. Cotton, Clarges-street, Piccadilly; Dr. Todd, King's College Hospital; Dr. Bence Jones, St. George's Hospital; B. W. Richardson, Esq., Mortlake; J. L. Levison, Esq., Brighton; T. C. Shinkwin, Esq., Cork; The General Board of Health; John Walter, Esq., Dover; Thomas Stokes, Esq., Nailsworth; Messrs. Grindlay and Co., Bishopsgate-street; Dr. Boon Hayes, Weymouth-street; Dr. Snow Beck, Langham-place; Dr. Wadham, Half-Moon-street; J. W. Robinson, Esq., Mildenhall; Dr. Herbert Barker; R. W. Wilde, Esq., Dublin; R. Mayne, Esq., Leeds; Edward Cousins, Esq., Camden-road-villas; Rev. J. Barlow, Royal Institution, Albemarle-street.

ORIGINAL LECTURES.

HISTOLOGICAL ANATOMY AND MICROSCOPICAL MANIPULATION.

By Dr. BOON HAYES.

Formerly Lecturer on Anatomy, Physiology, and Pathology, at the Sydenham College, Birmingham.

Lecture I.

Summary: General Introduction—1. Definitions and Derivations—2. The Simple Microscope—2. The Compound Microscope—4. Their Comparative Value—5. Their Individual Use—6. The Essential Parts of the Microscope—7. Parts of the Compound Microscope—8. Description of the Stand—9. The Stage—10. The Compound Body—11. The Coarse Adjustment—12. The Fine Adjustment—13. The Oblique Movement—14. The Mechanism of the Mirror—15. The Plant of the Instrument.

Gentlemen,—The application of the microscope to physiological, pathological, therapeutical, and medico-juridical purposes, has lately been so successful, and nevertheless is at present so little known or understood, that no apology on my part is necessary, either for devoting a considerable portion of the course which I have the honour of conducting to a description of that instrument and a demonstration of its discoveries, or for presenting the matter to you again, during the summer months, in a consecutive series of lectures, forming a more complete "Histological course."

It is true that courses of physiology have been and are conducted without any specific tuition as to the mode of using this instrument; *results*, rather than *processes* of manipulation, being exhibited to the student. So far, however, the study of histology might be pursued as satisfactorily, and with much less trouble, from the many well-executed plates commonly in the student's hands, as from such a use of the microscope itself; nay, more satisfactorily; for you may have a plate *constantly* by you, whereas you see the specimen in the lecture-room once or twice only during the course; and, unless you learn the manipulation necessary to the demonstration of any particular tissue for yourself, it may turn out that you may see that tissue once or twice only during your lifetime.

But, further, it is essential, in my opinion, in the education of every medical man of the present day for him to acquire such a knowledge of the microscope, that he may not only have it in his power to *describe* tissues as they may appear when viewed by this instrument, but to *demonstrate* them for himself; and more, that he may not only be acquainted with what is already known on the subject, but be in a position for carrying on original research. This is a point which is daily forcing its importance on the minds of our Profession; and it is *not* because the microscope is not appreciated—speaking generally—that its use is not more common, but, among other things, because its use was not taught in our schools when the majority of the present race of medical practitioners were students of medicine. They had no opportunities for the acquisition of such knowledge; and I am sorry to think that this is a cause likely to operate on students now, unless some most specific efforts are made in this direction; for without some systematic instruction upon Histology, the students of the present day will pass into medical practitioners with a very poor modicum of knowledge on this subject. In our best-conducted schools, much is being done, but by the teachers, *not by the students*. We want histological classes conducted like classes on practical chemistry or practical anatomy, where the office of the student is to *work*—that of the teacher simply to *superintend* that work, and explain any points of difficulty as they arise.

[No. 693.—New Series, No. 132.]

The microscope, notwithstanding its expense, and this want of systematic instruction, will become more generally known in a shorter period than the stethoscope did, simply because it appeals to a sense which is more *easily* educated and more *extended* in its application. In fact, I have little doubt that, even in the present day, there are more good microscopists than *really good* stethoscopists; but these consist either of men to whom nothing is too difficult or laborious, so that they add to their stock of scientific knowledge; or to the lucky few who have enjoyed the advantage of consecutive and systematic lectures upon histology. I say the "few," because, at present, with one or two exceptions, systematic courses on this department are not given in the medical schools of Great Britain.(a) It is a subject of study which rests either with the good sense of the medical student as a matter of choice, from feeling its importance; or what it *will* come to with the various examining boards as a matter of compulsion, from the same cause. Let them make the "demand" for this style of education—the "supply" will immediately follow.

Nevertheless, Gentlemen, even at the present time, there are some who will tell you that "the microscope is of no use in practice," and, that, *therefore*,(b) it is "labour lost" to study it. My only answer to this statement is, that these gentlemen are perfectly right,—as far as their own experience is concerned. It would certainly be "labour lost" for him to study its use who could thus argue. Moreover, supposing it were true, which it is not, he whose motto is *cui bono* in the study of medical science, should, in my humble opinion, give up the profession and take to a trade.

Others, again, exaggerate the utility of this instrument; they have a kind of microscopic *furor*; and, with more zeal than prudence, talk as if disease could not be cured without the microscope; or as if physiology and pathology, forsooth, were not in existence until the advent of the microscope among us. Now, such mistake the mission of the instrument, for it has come much less to *alter* than to *extend* our views. It enlarges the field of our vision,—reveals previously hidden things; it corrects error very much less than it introduces new truths. He, *cæteris paribus*, makes the most able microscopist who can use his unassisted eyes to most advantage. He who is the best thinker and reasoner from correctly-observed premises, who can go through the most accurate logical deductions from those premises, and arrive most readily at the most accurate results, will be the man to use the microscope with the greatest advantage to himself and profit to his patients or to science. * * * * *

Again, there are others who are real students of histology, but who, from the pressure of business,—the want of a consecutive course on the subject, or a definite text-book, have begun, as I conceive, at the wrong end—namely, with pathological, instead of physiological, tissues and products. This class must be spoken of most respectfully, and in no way disparagingly. They are generally from among the number of those who have enjoyed no tuition on these subjects during their medical curriculum; but who, appreciating the value of histological research, have begun it by themselves without help, how and when they could, gleaning information from all sources, and necessarily without anything like system. None feel the value of such a course as the one I propose to deliver to you so much as these very men—none will be more willing or more zealous students.(c) * * *

I must offer an apology for the simplicity and familiarity of manner and diction with which I shall conduct these lectures, especially to those gentlemen of the Profession who honour me with their presence, several of whom have made considerable progress in histological research, and are well-known and able microscopists. But these, perhaps, more than others, will understand, especially in such a subject,

(a) Dr. Hughes Bennett, of Edinburgh. Dr. Redfern, of Aberdeen, and Dr. Simmons, of Dublin, have for several years given complete histological courses. Dr. Jenner, of University College, London, gives a very complete course of pathological histology, and Dr. Parkes a most admirable course on urinary histology and the histology of the sputa.

(b) A *sequitur* worthy of the class whence it proceeds.

(c) The parts omitted in this introduction were addressed principally to the students of Sydenham College.

that, in justice to my class, I must proceed *ab origine ad finem*, as if the *whole* of my audience were totally ignorant of the matter on which I lecture; so that from the very rudiments of the subject I may lead you little by little to its full development. This, tedious as it may be to those of you who are somewhat advanced in histological studies, is the only way in which any teacher can proceed in laying a truly scientific foundation of any special subject he professes to teach.

One word on the order in which I intend to treat this subject of MEDICAL HISTOLOGY. I divide it into four compartments:—

1st. The mechanical and optical construction of the microscope, its accessory instruments, and MANIPULATION.

(This subject will be developed in three lectures.)

2ndly. Physiological Histology; or the application of the microscope to the examination of the healthy tissues of the human body, which occupies about ten lectures.

3rdly. Pathological Histology; or the application of the microscope to diseased tissues and products, and as an instrument of DIAGNOSIS.

4thly. The application of the microscope to therapeutics and medico-legal inquiries.

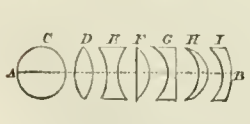
The exact outline of the first and second departments is advertised in the *Medical Times and Gazette* of August and September of last year, and in January of the present year.

It is more than probable, that, in process of time, special courses of lectures *upon histology* will be given at all schools of medicine. Already do the examining boards (if we judge from their test-questions) demand a considerable knowledge of the student upon the subject; and already has its importance in its most extended applications been fully recognised by one of our most influential examining boards, as seen in the appointment of Mr. Quekett to a Professorship of Histology in the Royal College of Surgeons of England. * * * * *

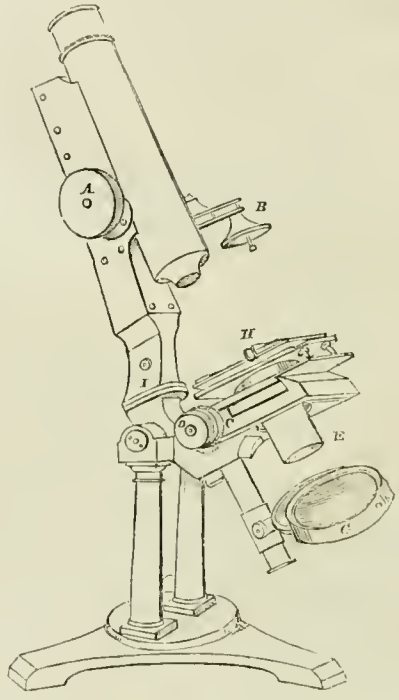
If you seek for encouragement in the pursuit of histological research, see what the microscope has already achieved. Much of the intrinsic merit of that admirable work of Todd and Bowman on the Physiology of Man, is due to their able application of the microscope to the elucidation of the subject. The special discoveries of a physiological and pathological nature, of Sharpey, Goodsir, Bennett, Bowman, Redfern, Quekett, Johnson, Paget, Golding Bird, Wharton Jones, and numerous others—men among you, of your own time—owe much of their origin to the microscope; and it is my firm belief, that one of the next steps of advance in medical knowledge, will be made when the microscope and organic chemistry go "hand in hand" in the investigation of disease; converting what is now tentative and hypothetical into demonstration and proof; and by enlarging the field of our vision, enlarging the range of our intellect; and thus expanding the means and power of our judgment.

1. The term "MICROSCOPE" is derived from two Greek words, *μικρα* and *σκοπειν*, which signify conjointly "to look at small objects." The instrument, as you all know, is used for the examination of tissues whose ultimate structure is too minute for ordinary or unassisted vision; it is applied principally to the study of a science called "HISTOLOGY," from *ιστος* a web, and *λογος* description,—a science which, as far as it contemplates the organisation and structures of the human body, has almost originated in our own time, and has its discoverers still among us.

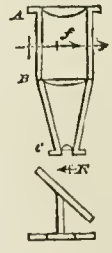
There are two kinds of microscopes in common use, the *simple* and the *compound*.



2. THE SIMPLE MICROSCOPE is a lens or magnifying glass, (C, D, F, H, I, are various shapes of lenses,) by the refractive power of which the object examined is apparently increased, and immediately presented to the eye without undergoing any further change. Thus a common burning glass is a simple microscope; the glasses of an ordinary "old-sighted" pair of spectacles are simple microscopes. The common glass bulbs filled with water, sold as childrens' toys, are simple microscopes. And there may be a combination of several simple lenses, as in the pocket botanical lenses, all of which come under this definition; in short, all ordinary convex transparent media are simple microscopes. These may be brought to very great perfection, and be even made achromatic (31), (that is, made so as to give little or no colour to the edges or surface of the objects examined,) and there are several well-known varieties of these simple microscopes not achromatic, as the "Coddington lens" (28), the "Stanhope lens," and one of the most perfect forms, "Herschell's doublet," this latter correcting sphericity principally (27), which I shall particularly refer to when speaking of the optical department of this subject.



3. The COMPOUND MICROSCOPE, a very good form of which is here figured, consists of two or more simple microscopes placed in the same line of light, and so arranged that the simple microscope nearest to the object magnifies it according to its power, and throws the magnified image to some little distance from its upper surface, while the other simple microscope is placed so as to magnify *not* the object but this *image* of it. By the simple microscope we look at the *object* directly. By the compound microscope we look at its *magnified image*—a diagram will make this plain.



A, B, C, is the "compound microscope," composed of a single microscope C, which magnifies the arrow F. A is another simple microscope, which magnifies *not* the arrow, but its *image f*. The other simple microscope, B, I shall refer to at another period (35).

4. Both of these instruments are in use by microscopists, and, when contrasted, have comparative advantages and disadvantages. The *advantages* of the simple microscope are its accuracy, its cheapness, its smallness, (and, therefore, its portability,) its extreme simplicity and ready applicability to use. Its *disadvantages* are, its limited "*field*" for observation with high powers; for inversely as its power is the size of its field; and, with *such* powers, its necessary want of rapid adjustments, in addition to the fact, that the very *highest* powers can *never* be used with it.

The *advantages* of the compound microscope are, its *large field*, with comparatively *high* powers; and the perfection of its mechanism for almost every conceivable adjustment; its steadiness; and the capability which its stage

arrangements possess for *continued* observation and experiments.(a)

Its *disadvantages* are, its expense and comparative inaccuracy; thus every error committed by the first lenses (the lenses near the object) is increased by the second set, (the lenses near the eye,) and that in proportion to the power of this second set; like the increase of error in a multiplication sum, an inaccuracy committed in the first line is increased by every additional multiplier, and that in proportion to the power of this multiplier; so that an error which was at first almost inappreciable, may be so magnified as to become very serious.

5. The simple microscope is used chiefly for rough and rapid dissections with low powers, for portability; and one of them, Mr. Pillischer's especially, to which I shall refer more definitely, for clinical observations at the bedside. The simple microscope is used chiefly as *an adjunct* to the compound microscope, not a *substitute* for it; by the former we prepare tissues for more minute examination by the latter. No one, however, can become a thorough histologist without both.

I shall now proceed to describe more in detail the compound microscope:—

6. The COMPOUND MICROSCOPE, (of which I here show you the principal varieties,) (a) of whatever make or form, must be viewed under two aspects: namely, its mechanical and its optical arrangements, a knowledge of both of which is highly important to the student who wishes to acquire delicate and exact methods of manipulation, and to understand the whole subject thoroughly. By its mechanism it is held firmly and stably together as a compound mass; moreover its optical department is not only set in this mechanism, but manipulated by it; thus by it we can adjust the light necessary for the observation of objects, move the objects themselves, adjust the focus of the magnifiers, even to the most delicate measurement. But it will be necessary for us to consider its optical construction, more especially in the next Lecture.

7. The MECHANISM of the compound microscope may be considered under the following heads:—The stand; the stage; the compound body; the coarse adjustment; the fine adjustment; the oblique movement; the mechanism of the mirror; the "plant" of the instrument.

These I shall now consider individually—

8. The STAND is a term sometimes inaccurately applied to the whole of the mechanism of the microscope as distinct from the optical part. It is, more properly considered, that portion of the microscope which consists of a pillar, pedestal or pedestals, and a foot or basement; in short, it is that part which, in the best English constructed instruments, supports the "oblique movement" (as I here show you). Its special object is to give firmness to the stage, mirror, and compound body. Now, the stand is of various shapes; *e. g.*, a block basement, with two pillars, as in Ross's or Pillischer's; or a tripod on a basement, with a single pillar, as in two varieties of Powell's; or it may be fixed upon wood, as in some of the older forms; or on a round brass plate, the wood or the plate forming part of the stand. *Whatever* its shape its office is the same; and stability is the grand object to be aimed at in its construction. It may be stated, as a general rule, that the weight and stability of the stand should be increased in proportion to the extent of the magnifying power. On account of this rule not being attended to, I have known considerable disappointment arise in those cases where old-fashioned microscopes have been fitted up with new or with achromatic lenses. Even in careful use the vibrations occasioned by ordinary movements have been, with these instruments, too great for the extent to which they magnified; suppose the vibration or jarring of the stage-apparatus measure only one two-hundredth of an inch—(a distance or measurement inappreciable to the naked eye)—and suppose the microscope magnify 200 times or diameters, the apparent movement will be *one inch*, or the length of the vibration magnified by the power of the instrument. Now, unless the object and compound body move exactly together, the object under inspection will be thrown completely out of the *field* of vision, and will be distinctly seen only when the oscillation of that movement has ceased. The plan of making a stand heavier does not meet the case, because the various parts of the whole apparatus are originally constructed in due proportion. *Hence I do not recommend modernizing old instruments.*

9. THE STAGE supports the object for examination, and surmounts the stand. Above it is the compound body; below it the mechanism of the mirror. Perhaps more elaborate workmanship has been bestowed upon the stage than upon any other part of the mechanism of the microscope by various artists; some of it is extremely beautiful, as in Ross's or Powell's arrangement, and Pillischer's eliptical stage, every conceivable motion being produced by the screw-work and adjustments of this part. But all this is labour lost, and unnecessary expense incurred, as far as its value to the medical man is considered. In my opinion, he can do not only well without it, but better without it than with it. Nachet's, Oberhaüser's, Brunner's, and the student's microscope of Powell and Lealand, are all that you can wish for, in reference to the stage arrangement,—a simple plane of brass, with a slide fitting with some degree of friction, so as to support the stage-glass when the oblique movement is used; but even this slide is not required in the microscopes which have no oblique movement. Manipulation of the objects on the stage should be managed *by the fingers alone*, altogether independently of screw work. This manipulation, I grant, will take you longer to learn than when assisted by such mechanism; but, the "knack" once acquired, is capable of quite as minute and extensive application as the mechanism, and is, in addition, less expensive and more simple.

One point in reference to the stage must, however, be borne in mind, viz., the importance of its being *fixed immovably to the stand;* no focal adjustments should be managed by any movements it possesses. This point is now so generally conceded, that the caution is hardly necessary; for no maker of repute ever commits the mistake of constructing such stages in these days. The circular aperture in the stage (which may be diminished by a diaphragm at pleasure) is to allow the rays of light reflected from the mirror to play upon the object under investigation, when viewed either by transmitted light or by a Lieberkuhn (19).

10. The COMPOUND BODY contains that arrangement of simple microscopes which gives the compound microscope its specific name. It consists essentially of a cylinder, usually of brass, about nine or ten inches in length, at the lower or distal end of which one or more simple microscopes are placed (5 and 6); and at the upper or proximal end of which are other simple microscopes, combined in one piece. The lower microscopes are called the *object-glasses*, from their proximity to the object to be examined. The upper microscopes (set in a tube) are called the *eye-piece*, from their proximity to the eye during the examination. It will be at once evident, that the uses of the tube entering into the formation of the compound body are, 1st, to form a mechanical support between these two sets of glasses, viz., the objectives and eye-piece; and, 2ndly, to shut out all light from the sides, which would otherwise interfere with the rays transmitted through the objectives on their way to form the *image* of the structure under investigation. The interior of the tube is blackened, for the purpose of absorbing any light not wanted in the illumination of this structure, and it is sometimes supplied with a draw-tube, by which its length may be very much increased.

It is of the highest importance in "mounting" this part of the apparatus to make it as firm as possible. Observe, it is a long tube, and the leverage produced by its length from its fixed point (a fulcrum) is considerable; a very slight force applied near the eye-piece may produce much movement near the objective. Ross's microscope has a bar placed obliquely between the tube and a fixed part behind. This, and modifications of it, are found very effective in obviating the inconvenience to which I refer. In some microscopes the compound body may be readily taken off the stand; this of course is for the convenience of *packing* the instrument into a small compass. In my opinion *all* such arrangements are bad; these and similar parts of the mechanism of the microscope should be *fixtures*; and there is, after all, very little use in this packing in a small compass. There are several simple *pocket* microscopes (36) *quite* powerful

(a) It would not be difficult to show that a compound microscope has many other advantages; among them, one arising from the correction derived from the eye-piece, as first pointed out by Boscovich, and afterwards elaborated by Mr. Ross; but to do this we should have to enter too minutely, as we conceive, into optical detail.

(a) Microscopes of Ross, Powell and Lealand, Pillischer, Oberhauser, Nachet's, Daucer's, Smith and Beck's.

enough for diagnostic purposes at the bedside, and for all other purposes smallness and portability are fanciful rather than useful qualities.

11. The COARSE ADJUSTMENT is variously arranged in different microscopes; it is the movement by which the focus is obtained, either for low powers or for higher ones, previously to a more minute examination with the fine adjustment. On account of the *coarseness* of its rack and cog-wheel, all its movements are much more rapid than those of the fine adjustment. Expert microscopists can frequently use it so readily as to dispense with the fine adjustment in many cases. In Powell and Lealand's student's microscope the two adjustments are combined in effect, by making the compound body slide in a tube upon a fine rack arrangement. In Oberhaüser's, Nachet's, and similar instruments, it is managed by sliding the compound body in a sort of spring clamp or tube; and, of course, as long as the elasticity of the spring or the friction of the compound body in the tube, is sufficient to withstand the weight to be supported, very nice adjustments may be made by this arrangement. There is another, but very objectionable kind of coarse adjustment where the stage is moved upwards and downwards between the mirror and compound body. One objection to this is mentioned before (9), another is, that this most materially interferes with your adjusted light. In short, I may repeat, that both the coarse and fine adjustments should act on the compound body only, the former moving it *en masse*, the latter operating upon the objectives, as we shall now consider.

12. The FINE ADJUSTMENT is used whenever great delicacy and minuteness are required, as in almost all micrometric or measuring observations. Like the coarse adjustment, it also varies in its construction. In an instrument which Oberhaüser used to make it was connected with the stage, and in its revolution moved it to or from the compound body. It will be at once seen, that if it be objectionable to have a coarse adjustment connected with the stage, *par excellence* it is objectionable to have a fine one so attached. Oberhaüser has lately altered this movement, and attached a fine screw to the pillar supporting the compound body, so that this, as a whole, is moved by the revolution of the screw. Its action is the same as that of the best constructed English *coarse* adjustments (as Powell and Lealand's) (11), only much finer. Nachet's arrangement is the same, but his coarse adjustment is moved by a rack and pinion.

In the better kind of English microscopes, the objectives alone are acted upon by the fine adjustment, the revolution of the milled-head attached to the screw causing the objectives to rise or fall from the eye-piece, thus shortening or lengthening the focal distance without materially affecting the amount of light. The *case*, in which the objectives are set, therefore, has a telescope movement *in* the tube of the compound body. In some there is a spring in the compound body pushing the objective case towards the stage, while the fine screw, acting upon an arm attached to this case, pushes it towards the eye-piece. The spring acts from above, the screw acts from below; and thus both movements, up and down, are obtained. The only objection to this arrangement is the difficulty of getting the object-glass-tube, to fit *accurately* in the tube of the compound body, the slightest movement from the concentric axis of the lenses being a source not only of inconvenience but even error. Perhaps the acme of perfection is arrived at in the mechanism of the fine adjustments of Ross, Powell, and Pillischer, and Smith and Beck; and, in reference to Nachet's and Oberhauser's instruments, they are most certainly sufficiently correct for the ordinary purposes of the medical man, and for the magnifying powers they are adapted to carry. There is a movement connected with the objectives, adapting them to covered and uncovered structures, by which they may be separated from one another. This I shall refer to in a supplement, with a few other important addenda.

13. THE OBLIQUE MOVEMENT.—There is much difference of opinion as to the value of this arrangement. The best English microscopes always possess it; the French and German ones seldom, if ever. The English are advocates for the oblique movement; the continentalists for the vertical position. It is not perhaps fair or logical to judge of the comparative worth of these arrangements by a comparison of French or German with English microscopists. But it may be stated, *en passant*, that histology is not only more generally known on the Continent than in England, but even better understood; and, further, that in Edinburgh and Aberdeen, the only places in England and Scotland where *distinct courses of histology* are given, the Continental microscopes are not only used but preferred; and that not solely on the ground of their cheapness, (a point of no mean importance to the medical man.) The question resolves itself into this:—That the oblique movement is *not* of paramount importance;—this is evident from the facts above stated; and, in my opinion, its requirement is a result rather of the type of mechanism of English microscopes than a necessity of microscopical manipulation generally. The French microscopes are so small, that the angle at which your head is bent to them is *oblique*, and differs very little if any from the convenient angle of observation with the oblique movement of English microscopes. If the oblique movement be used, however, "over glasses" (50) must be had recourse to when viewing liquid objects, to prevent the gravitation of the fluids, the apparent motion of the fluid being of course reversed. (55)

14. The MECHANISM OF THE MIRROR is very simple. In microscopes which possess an oblique movement, it is attached to the apparatus so as to move with the compound body. In short, the mirror is always fixed in the longitudinal axis of the compound body, so that its plane may be made to correspond exactly with the plane of the lenses used, or to turn so as to form any angle with them. In Oberhaüser's, and that type of microscope, it is set in a part of the stand, and so nicely arranged, that this *cylinder stand*, in connexion with the diaphragm of the stage, acts at the same time like a "dark chamber," (42) an instrument I shall refer to. In the best English microscopes it is set upon a circular pillar, attached to the stage, so as to revolve round this pillar as a fixed point; hence it can be turned completely out of the way, which is a useful arrangement for looking at objects with direct light, or when using the "camera lucida" as adapted to these microscopes. Further, it slides up and down the cylinder so as to concentrate more or less light, and turns in a kind of cradle, like a looking-glass swinging in two arms, which are set upon a movable central pillar. These joints move with some friction, so that you can adapt the mirror to any angle of light, or you may turn it round so as to present its concave or plane(a) surface to the stage, for some microscopes have these double mirrors attached to them.

15. The PLANT OF THE INSTRUMENT; that is, that position of the instrument which you select for the examination of any structure. For cursory or ordinary examinations, almost any spot will do which is sufficiently firm to prevent much gyration, and which affords enough light. But for continued observation you should select some *one* spot in your study or house which offers both of the conditions. I shall speak of this subject again when referring to the illumination of objects, for it *may* be that you will have to select two positions for "planting" your instrument—one for the day-time and one for night.

A microscopic analysis demands much stability, especially when micrometric observations have to be made; and the action of re-agents has to be watched; and one great secret of success in all these experiments is to have your microscope so fixed, and *yourself* in such a *comfortable* position, that nothing like constrained and forced attitudes are necessary to continued manipulation; these points are of the utmost importance, and non-attention to them is a fruitful source of error.

I think, gentlemen, I have now treated upon the principle points connected with the mechanical construction of the microscope, avoiding that too minute detail which would be interesting to the artists and connoisseurs of these instruments, rather than useful to yourselves. (b) I have not referred particularly to special microscopes in the way of praise or blame, but have endeavoured to give you those *general* principles which should guide you in selecting any instrument, by showing you what you want in its *mechanical* construction. I shall pursue the same course in reference to the optical department in the next lecture.

(a) The plane mirror is used only when working with the achromatic condenser.

(b) Meanwhile I shall be happy to answer any questions which may occur to you at the close of the lecture, or, as stated in the advertisement of these lectures in the *Medical Times and Gazette*, through the Editor of that Journal. May I suggest the importance of confining any such questions to the subject of the lecture?

ORIGINAL COMMUNICATIONS.

ANALYTICAL REPORT
ON THE
TREATMENT OF FEVER BY LARGE DOSES OF SULPHATE OF QUINA
AT ST. GEORGE'S HOSPITAL.

By A. WHYTE BARCLAY, M.D.
Medical Registrar to St. George's Hospital.

One of the great objects to be attained by the circulation of hospital reports, is to put those who have not the opportunity of making the observations for themselves in possession of the results of experience in the employment of particular remedies; and it seems to me that this object may sometimes be better attained by an analysis of a large number of cases, than by detailing particular examples.

On the present occasion it is my intention to communicate to the readers of the *Medical Times and Gazette* a short summary of all the cases of fever admitted into St. George's Hospital from the middle of May to the middle of November, and to exhibit the comparative results of treatment when large doses of quinine were given, and when the ordinary method was followed; commencing with the period of admission of the first patient who was submitted to the new mode of treatment, and only terminating with those who have this week left the hospital.

It is my hope to be able to do this without prejudice or partiality. The cases are in no manner selected by me, they are spread over a considerable period, and they occur in the practice of several individuals. Cases were together under observation, in the same or in adjoining wards, in which the ordinary method and the quinine treatment were severally employed, partly with a view to a comparison of their effects, and partly as the ideas of the physician leaned towards the one or towards the other plan of treatment. All that can be said of them is, that they were generally pretty distinct types of fever; but even this is not without exception; and if some were very severe, others were certainly mild examples of the disease.

Little apology need be urged for bringing the details of a question so important before the Medical Profession, nor does it seem necessary to say anything in defence of the experiments having been made. In this age of progress, we must be ever ready to investigate every well-attested observation, and to abandon old theories, if on careful inquiry the new one seems more true or more practically useful; but nothing must be admitted as a fact that will not stand the test of repeated observation, nor any theory entertained which is not in conformity with extended experience. To add one small contribution to the sum of evidence on which the question of the employment of quina in fever is to be determined is our present object.

The question is not whether under certain circumstances tonics are not required in fever, for that will be admitted by all who have learned that their patients will not bear loss of blood, and that the great object of the practitioner in anxiously watching a severe and dangerous case is to endeavour to obviate the tendency to death by sheer exhaustion; but the question is, whether, by giving very large doses of the salt, we can decidedly cut short the disease, and restore the patient to health and vigour in a few days, in place of waiting for it to run its course. It must be at once admitted that quinine has not this power in all circumstances, and that at all events cases do occur in which it is perfectly powerless to arrest the progress of the disease to a fatal termination. But it yet remains to inquire whether, in the majority of instances, it exerts any such specific power as in ague, or whether its employment, even without at once putting a stop to the febrile disorder, does yet in any way shorten its duration. And it must be confessed, that it is something strange to have learned that a patient may take between two and three drachms of the sulphate of quina in twenty-four hours, either in pill or in solution, at the very height of a severe attack of fever, and yet suffer no harm from it, and this even when we are sure that comparatively little can have run off by the bowels, and that none has been rejected by vomiting.

In watching these cases, one fact has been most striking and unmistakable, and that is, the effect of the remedy when pushed to its full extent: the pulse is depressed, the vital powers are prostrated, and vomiting follows. In some of the more severe cases there was such a tendency to sinking that stimulants were had recourse to, and seemed urgently called for. But this condition was by no means followed by a remission of the disease, which recurred as soon as the physiological effects had passed off.

One or two cases got well very speedily under its employment, in which general prostration was not produced, and its special effect, if any, was limited to lowering the general circulation. But it must be remarked, that, as we have no specific indications by which to measure the intensity of individual cases, so it is quite impossible to tell whether rapid convalescence in one or two instances was due to the treatment employed or to the milder character of the disease. And, though it is unquestionable that depression of the pulse is one of the physiological effects of this remedy, yet it must be remembered that the fever of the last six months has not been marked by any great frequency of pulse, and that in one or two instances the same remarkable slowness of pulse has been noted in rapid convalescence, under ordinary treatment. Consequently, when general prostration has not followed its administration, it may be doubted whether it was the cause either of the rapid convalescence, or of the character of the pulse.

Such considerations only render it the more necessary to take a comprehensive view of a large number of cases. The present series is, perhaps, not so great as might be wished, and certainly is not sufficient of itself to form the basis of a correct judgment of *all* the virtues of the remedy; but we cannot provide an epidemic at will for our experiments, and a knowledge of what it has already done, or failed to do, will best prepare for its judicious employment in future epidemics.

From among the cases of fever viewed with relation to their termination in recovery or death under different modes of treatment, it is needful to exclude such as were complicated with other diseases, as well as such as merely simulated typhoid fever, whether the resemblance was so great that, in the absence of any correct history of the case, its nature was left in doubt till after death, or whether it was merely regarded as fever, and treated as such until other symptoms arose to correct the diagnosis. Two cases of this nature, however, may be contrasted, in which the appearance of fever was exactly simulated by the low form of cerebral inflammation accompanying the tubercular diathesis. They each presented a quick pulse, hot dry skin, coated and dry tongue, relaxed bowels, with dark thin stools, and a muttering, unconnected delirium, without heat of head, or complaint of pain. The tubercles in the lungs were not much developed, and so equally diffused that no special indications could be derived therefrom. The cerebral symptoms were more marked than usual in fever, and in the one, for some days before death, were unmistakable.

In one of these cases, quinine was given, in the other not; and while no surprise can be felt that it did not stay the inflammatory action, it is at least worthy of note, that no increase of the disorder seemed to attend its employment, that there was no hastening of the fatal result, no aggravation of symptoms.

The physiological effects of the quina were developed in this instance, and exactly corresponded to those noticed in the fever patients; the depression was perhaps not so fully marked, and there seemed to be considerable calming of the delirium. This may have been, however, only the transition from the delirious to the somnolent and semi-comatose stage of the disease. The duration and the intensity of these two cases, under such opposite modes of treatment, were very nearly similar.

It will be convenient also to allude to the only two uncomplicated fatal cases of fever which have occurred in St.

George's Hospital during the six months under consideration. In one, the quinine treatment was employed; in the other, the ordinary method by salines, etc. Both were from the first severe. They were respectively eleven and twelve days under treatment, the whole duration in one being twelve days, and in the other seventeen days. That in which the saline treatment was employed died in a state of collapse, from the supervention of peritonitis, as was believed, after ulceration of the bowels and hæmorrhage, but no *post-mortem* examination was allowed. The one in which quinine was given, on the other hand, was one which bore all the marks of genuine typhus, as it is called, with the exception of the mottled rash, which was never seen, and it was quite a matter of doubt whether any decided fever spots existed, one or two very faint and fleeting marks on the abdomen being all that were observed. The tongue was brown, dry, and coated; there was very little diarrhœa and constant delirium, passing into stupor and coma; the face was much congested, and the eyes suffused. He died evidently from blood-poisoning, and the blood after death was very fluid, while only a few small ulcerations were found in the small intestine.

In this case the pulse was lowered for several days from 120 to under 100, but there was sickness and great depression attendant on the quinine treatment, which was twice employed, and had to be given up on each occasion in consequence of this effect. No benefit was derived from its use.

One of the cases which recovered presented the same train of symptoms, and, so far as could be ascertained in the absence of actual inspection, the bowels were not ulcerated; there was no diarrhœa, and the stools produced by castor-oil were generally of a pretty natural appearance; the tongue never became shining, glazed, or chapped: in this instance, too, there were no spots.

Cases of this nature have been rare during the last six months, the fever has been generally of a milder type, and, when serious complications have been noticed, they have generally been connected with evidence more or less distinct of ulceration of the bowels.

The cases treated by quinine may be divided into three classes.—1. Those in which its exhibition was followed by marked depression. 2. Those in which the pulse became slower, without general prostration or sickness. 3. Those in which no decided effect was produced which could be noted at the time.

1. Including all the cases together in which this effect was produced, the number is five. Two have been already mentioned as fatal, one of apparent typhus, one of tubercular inflammation of the brain, to which a third may be added, complicated with albuminuria, which was not detected until the subsidence of the fever, and ultimately proving fatal. The physiological effect of the remedy was produced by very different quantities in different instances, and given at very varying intervals. One patient took twenty grains every three hours for nine times; another took ten grains every two hours for ten times; while a third took twenty grains every six hours for only three times; the other two had twenty grains every four and every six hours respectively for eight times.

Of the 3 uncomplicated cases, 1 died, 1 was ill ten days before admission, and remained under treatment forty-five days before recovery was complete; the other had been ill a week, and was discharged cured at the end of twenty-four days.

2. In 2 instances only did the pulse become remarkably slower without any depression; one took ten grains every three hours, the other fifteen grains every four hours for about two days, after which the dose was gradually diminished. The first had been ill five days, and was discharged cured in eleven days, having been kept under observation longer than was perhaps absolutely needed to ascertain that recovery was really complete; the second had been ill only two days, and got well in three weeks.

The first case was not severe and had no spots; the second was delirious for the first two or three nights, and had a faint rather indistinct rash on the abdomen; he had also pretty severe diarrhœa, but no evidence of ulceration of the bowels. The pulse fell in each below 50, but it is necessary to state here, that in another instance it fell still lower in which no quinine was given. He made a very rapid recovery, being ill only five days before admission, and leaving the hospital cured in eight days.

3. In 11 cases there was no distinct physiological effect produced by the quinine; and it remains to inquire whether recovery was more rapid under this mode of treatment than any other; and this may be best accomplished by instituting a comparison between them and the whole of the other fever patients admitted during the same time. Twelve examples of a very mild form, which might be justly called febricula, are omitted, and there then remain 51 instances of well-marked fever which were not treated by quinine.

Among these, 20 exhibited fever spots on the chest or abdomen, and 6 with and 5 without spots gave unequivocal evidence of ulceration of the bowels. By this is not meant merely the occurrence of thin watery motions, which have been observed in the majority of the patients, but the persistence of diarrhœa, with a patchy, shining, or fissured tongue. We have, therefore, as the basis of our analysis, 26 cases which neither had fever spots nor distinct evidence of ulceration, 14 with spots but not certain ulceration, and 11 in which the presumptive evidence of ulceration was strong.

The average duration of these cases, was—of the 26 cases, 10 days before admission and 21 days under treatment; of the 14 cases 8 days before admission, and 22 under treatment; of the 11 cases, 7 days before admission, and 33 under treatment.

Turning now to those in which the quinine treatment was adopted, and almost invariably in ten grain doses every four hours, they include 5 cases in which there was pretty conclusive evidence of ulceration of the bowels, 3 of which were also spotted; 4 cases with spots, where ulceration was not proved, and only 2 in which neither condition was exhibited. With the last cases it may be best to classify the two already referred to under the second division, because they are not marked by any very broad line of distinction separating them from the present series, and they exhibit the quinine treatment under its most favourable view.

There are, therefore, 4 cases without spots or decided ulceration, of which the average duration was eight days before admission, and twenty-three under treatment; 4 cases with spots only, of which the average duration was ten days before admission, and twenty-six under treatment; 5 cases with ulcerated bowels, of which 3 had also spots, and their average is fifteen days before admission, thirty-seven under treatment.

I must here distinctly state, that when I commenced this report I had no idea what the result would be, and, so far from believing it unfavourable, had hoped that excluding some unfortunate cases, the treatment of fever with quinine would prove rather more speedy, safe, and effectual, than by the ordinary modes. I am sorry to be convinced that it has no advantages.

It may be well to state in conclusion, that the prevalent type of fever has been what would be called "typhoid," not true "typhus." One or two had the aspect of congestive typhus, but wanted the purple, mottled rash. One patient had this rash very well marked, mixed with ecchymosed spots, and at the same time had distinct ulceration of the bowels, with a chapped and glazed tongue. Some had a very abundant crop of florid, slightly-elevated spots disappearing on pressure; some had only one or two of this character. Occasionally the spots are characterised as large, sometimes as small; and individual instances occur exhibiting various degrees of persistency, and various shades of colour, from a pale rose to a deep crimson. Spots existed without ulceration, and ulceration without spots, apparently without any definite rule; and some of the most severe and tedious cases were unaccompanied by either one or the other.

Without entering at present into the *vexata quæstio* of the exact value of fever spots in diagnosis, these facts are mentioned to show that the cases presented very considerable varieties, but I have not been able to ascertain that the quinine treatment was more adapted to one condition than to another. It appeared in the only two cases resembling typhus in which it was tried, that the depression was greater, and produced by a smaller quantity of the alkaloid, than in the remainder, but the instances are too few to draw any general conclusion from them. It is still a desideratum, that similar experiments should be made in the course of a regular epidemic of typhus; for, however otherwise the cases differed among themselves, they had this feature in common, that they were examples of the endemical fever of London.

Bruton-street, Berkeley-square.

MENORRHAGIA,
IN CONNEXION WITH HEPATIC DERANGEMENT.

By EDWARD RIGBY, M.D.

(Continued from page 588, Vol. V.)

There are few instances in which the diagnosis of the cause of the disease is so strikingly confirmed by the effects of the treatment as in that form of menorrhagia which is connected with, or dependent upon, hepatic derangement; it points out the value of Dr. Gooch's well-known remark, that "the effects of remedies on a disease, if accurately observed, form the most important part of its history; they are like chemical tests, frequently detecting important differences in objects which previously appeared exactly similar."

The case of menorrhagia which follows is a well-marked instance of the above quotation, and shows the importance of carefully investigating every derangement which accompanies these disorders of the uterine system:—

Mrs. D., aged 28, married eight years; never pregnant; brunette; pale; sallow.

May 31, 1851.—Profuse catamenia, very florid, with large clots; the discharge comes at the regular times, but always lasts a week, attended with severe pain, especially of the left groin; much leucorrhœa during the intervals; constant acute pain of left ilium, and pain on sitting down; tongue red and much sulcated; has piles; bowels regular, but offensive; urine turbid; pulse feeble; a period is just over. She has always suffered more or less pain at the catamenial periods, but has had the menorrhagia since her marriage.

Examination per Vaginam.—Os uteri low down; small edge soft; cervix hard, swollen, and painful; uterine sound passes three inches and a quarter.

Examination cum Speculo.—Anterior lip granular; much ropy discharge; I touched the part with nitrate of silver.

℞ Pil. hydrarg. chloridi co. gr. v. o. n.

℞ Pulv. guaiaci, magnesiæ, aa. gr. x. M., ft. pulv. j., primo mane ex aquâ sumendus.

℞ Acidi hydrochlor. dil., acidi nitrici dil., aa. ʒi., liq. taraxaci ʒi. Infus. gentianæ co. ʒvii. M., ft. mist. cujus sumat cochl. magn. ij. bis die ante cibum.

℞ Plumbi diacet. (in pulv.,) extr. conii, aa. gr. x., pulv. acaciæ ʒss. M., ft. suppositorium in vaginam o. n. imponendum.

June 9.—Had a considerable discharge of blood for a few hours. Less sallow; lips not so pallid; tongue still sulcated, but less red; bowels less offensive; urine clearer; discharge has been of a yellowish colour since; pulse stronger; has less pain on sitting down.

Examination per Vaginam.—Os uteri not so low down; it is decidedly less tender.

Rep. pil. hydrarg. chloridi co. alt. noctibus. Rep. mistura et suppositoria.

℞ Ferri sulphatis gr. xvj., magnesiæ sulph. ʒi., acidi sulph. dil. ʒi., syrupi rhœados ʒss. Aquæ menthæ pip. ʒviiss. M., ft. mist., sumat cochl. magna ij. primo mane.

July 3.—Very much better. Catamenia came on the 22nd ult., "easier than she has known for years;" much less profuse and less florid. Pulse and appetite are good. She has lost the pale and sallow appearance which she had.

Rep. pilulæ et mist. ferri et magnesiæ sulph.

℞ Confect. rosæ ʒi., acidi sulph. dil. ʒi., decoct. cinchonæ ʒxij.; misce et cola, ft. mistura cujus sumat cochl. magn. ij. bis terve die. Lotio aluminis.

As the os uteri presented some of the same appearances as when I first examined, I again touched it with arg. nitr.

August 23.—Looking much better; stouter, brighter. Two catamenial periods have passed with great ease, the discharge being neither profuse nor clotted. She has no leucorrhœa; the bowels are regular; she has left off medicine; the appetite is good.

The menorrhagia in this case had supervened upon marriage, and probably was due in the first instance to ovarian irritation connected therewith, and occurring in a system where the liver and bowels were considerably deranged. That the uterus had been more than ordinarily irritable at the menstrual periods we may infer from the fact, that she had always suffered at these times, but the catamenia had not been profuse until her marriage, since which the discharge had become very florid in point of colour, and attended with large clots and severe pain in the left ovarian region, in addition to which she also suffered from constant pain in the left hip. As pain in the crest of one or other ilium is so frequently connected with irritation or disease of the os uteri, and as, moreover, she complained of pain on sitting down, I passed the speculum, and found it in a red, irritable, granular state, for which I applied some argenti nitras, being anxious to remove all local irritation as quickly as I could. As, however, the cervix was "hard, swollen, and painful," I find I made a memorandum in pencil to order leeches the next time if her local symptoms were not better. For the same reason I ordered the suppositories of diacetate of lead and conium which I have before referred to as being useful under such circumstances.

Feeling convinced that the ovarian irritation was kept up by the state of her general health, I did not consider it necessary to treat it specially, but directed my attention to the torpid and unhealthy condition of the liver and bowels, hoping by a Plummer's pill every night, and the nitro-muriatic mixture with taraxacum by day, to rouse the liver to healthier action.

The discharge of blood which is mentioned in the report of June 9, as having occurred after the examination, was probably what had been retained in the dilated uterine cavity since the previous catamenial period not many days before; and, from the swollen condition of the cervix, considerable accumulations of menstrual fluid, or rather blood, must have taken place, producing great distension of the uterine cavity, as shown by the sound passing 3¼ inches, and requiring painful efforts to expel the large coagula which were discharged.

Ten days of the alterative and tonic course of treatment, and the use of the suppositories, had improved her condition considerably; her appearance was more healthy, and complexion less sallow; the uterus was not so deep in the pelvis, and the cervix much less tender; there was evidently no need of leeches now. I desired her to continue the suppositories and the mixture; a Plummer's pill every other night was sufficient to keep up the action upon the liver which had been produced, and I now gave her the brisk tonic aperient of ferri et magnesiæ sulphas, which so often figures in these reports. Her improvement was marked and progressive; the catamenia appeared "easier than she had known for years," the discharge much less profuse and florid. By the latter part of August two more periods had passed with equal success. The leucorrhœa had ceased, the bowels were healthy without the aid of medicine, her appearance was greatly improved, and she had gained flesh.

Mrs. P., aged 27; married two years; never pregnant.

November 14, 1845.—Tall, brunette.

Severe menorrhagia, attended with coagula and lasting for four weeks at a time; the discharge then gradually becomes paler until it is quite watery, at which time it is extremely fetid. Severe pain in the loins and groins comes on when the discharge is about changing; it usually comes on at 11 a.m., lasting until four in the afternoon, and is attended with shivering, urgent desire to pass water, with considerable difficulty in doing so. This latter is especially the case at the periods, when she has sometimes gone two days without relieving the bladder, but it has not occurred so frequently of late as formerly.

Suffers severely from piles, which are brought on either by exercise or by laxative medicine. The urine is always turbid; the bowels are regular, but the evacuations clay-coloured. When she is in pain they are relaxed, slimy, and bloody. Occasional pain in right hypochondrium and right shoulder; lies best on the right side.

Enjoyed good health until her marriage. The menorrhagia appeared a week after, with severe uterine pain, which continued to increase in severity, until it extended over the whole abdomen, which became tympanitic. She continued in this state for three months, and recovered to a certain extent. Has ganglia on the tendons of both wrists and left ham.

Examination per Vaginam.—Os uteri soft and pulpy; not tender; uterine sound passes three inches; the cavity of the uterus is very tender. I applied some argenti nitras to the os uteri, and just within the cervix.

℞ Pil. hydrarg. gr. iij., ferri sulph. gr. ij., ext. hyosc. gr. v. M., ft. pil. ij. om. nocte sumendæ.

℞ Sodæ potass.-tart. o. m.

℞ Acidi gallici., ext. hyoscyami, aa. gr. v. M., ft. pil. ij. bis die sumendæ.

December 9.—Looking younger and much improved in appearance. Tongue better; the evacuations, though dark from the medicine, are neither offensive nor slimy; has not suffered from hæmorrhoidal congestion; no pain of right side or shoulder; the irritability of the bladder is much less.

Although the discharge has continued more or less ever since, yet she is better in every respect. It has not been attended with coagula, neither did it become fetid when about to change, nor was the pain then so severe.

℞ Ferri sulph. gr. ij., ext. lupuli gr. vj. M., ft. pil. ij. o. n. s.

Rep. pil. acid. gallici bis die.

Rep. sodæ potassio-tart. o. m.

Let her take a blue pill once a-week.

December 28.—Although many of her symptoms have been much improved, the discharge has been more profuse than ever, and has greatly reduced her. The urine is turbid; the liver still torpid.

℞ Manganesii sulphatis gr. viii., confect. rosæ q. s. M., ft. pil. ij. o. n. s.

Rep. pil. acidi gallici bis die.

℞ Pulv. guaiaci, magnesiæ, aa. gr. x. M., ft. pulv. j. o. m. s.

January 1, 1816.—A slightly coloured discharge present; motions still of an improper colour and smell.

Rep. pil. manganesii sulph.

℞ Sodæ potassio-tart. ʒi.—ij. o. m. ex aqua.

℞ Acidi hydrochlor. dil., acidi nitrici dil., aa. ʒi., infusi gentianæ comp., infusi sennæ, aa. ʒiv. M., ft. mist., sumat cochl. magna ij. bis die.

17th.—Has scarcely any discharge; complains of having rheumatic pains in her limbs, and other evidences of rheumatic diathesis.

℞ Liq. potassæ ɱx., potassii iod. gr. ij., decoct. sarzæ co. ʒiss. M., ft. haustus ter die sumendus.

Rep. pil. manganesii et sodæ potassio-tart.

26th.—Rheumatic symptoms are becoming more and more distinct; the pains of joints and limbs are more severe; little or no discharge.

Rep. pil. manganesii et mist. sarzæ c. potassii iod.

Omit. sodæ potassio-tart.

30th.—It is now five weeks since she has had anything like a distinct menstrual period; feels stronger and better, but still the bowels are unhealthy. Rheumatic pains of head and limbs are becoming more characteristic.

Rep.

Feb. 6.—A slight appearance of catamenia has taken place for two days, but has again subsided; says that she never knew herself so free before; health improving; bowels are better, although still confined and unhealthy; urine more natural.

℞ Pil. hydrarg. chlor. co., ext. coloc. co., aa. ʒj. M., ft. pil. viii., sumat ij. o. n.

Omit. pil. manganesii.

Rep. mist. potassii iod. ex sarzâ et sodæ potass.-tart. o. m.

25th.—Was unwell for a fortnight; the discharge was moderate and without clots; appetite bad; evacuations foul. The ganglia are much better.

℞ Hydrarg. c. cretâ, pulv. ipecac. co., aa. ʒj., mist. acaciæ q. s. M., ft. pil. viii., sumat ij. o. n.

Rep. pulv. guaiaci c. magnesiâ o. m.

℞ Acidi hydrochlor. dil., acid. nitrici dil., aa. ʒi., tinct. colchici ʒii., inf. gentianæ co. ʒviiss. M., ft. mist., sumat cochl. magn ij. bis die.

The menorrhagia appeared also in this patient shortly after marriage, but not with the ovarian irritation which occurred in the previous case, whereas, on the other hand, there had been indistinct symptoms of uterine inflammation, passing into peritonitis, from which time she seems to have been liable to this state of the catamenia. As I did not see her until two years afterwards, it is impossible to decide as to the precise circumstances which accompanied the attack, but, from her subsequent history, it is by no means improbable that she was in a state of similar gastric, intestinal, and especially hepatic, derangement to what existed when she first consulted me. It is difficult to account for the condition of the bladder which attended this state, except from the circumstance of the urine having been extremely loaded and irritating, and that probably the bladder had not entirely escaped the inflammatory attack already alluded to. Be this as it may, there was considerable torpor of the liver when I first saw her, and severe hæmorrhoidal suffering. The uterus was large and soft, and when the menorrhagic attack began to abate, she began to suffer from a set of symptoms which seemed to arise from the irritation produced by retained clots and catamenial fluid becoming putrid. She had severe uterine pain, the discharge became fetid, and this was usually attended with shivering and an urgent desire to relieve the bladder, and difficulty in doing so, which, I presume, arose from the pressure of the distended uterus against the neck of that organ. Certain it was, that as soon as the condition of the excretions was improved, the catamenia were no longer attended with coagula; the pain at the period when the discharge became pale was less severe; no fetor was observed, as on former occasions, neither had she suffered from hepatic pain or hæmorrhoidal congestion, and the irritability of the bladder had been greatly diminished.

There was so much debility and loss of tone, that I abstained from giving her even the ordinary dose of blue pill, and combined three grains of it with ferri sulph. every night, and five grains of gallic acid twice a day. The improvement in appearance in rather more than three weeks was very decided; all the above enumerated symptoms had diminished, but still the discharge continued "more or less." As she had gone on to take the blue pill longer than I had intended, I immediately stopped it, continuing the other medicines as before. For the same reason, as I found at the next visit that the liver had again become torpid, I determined not to push the use of mercury further, but have recourse to a remedy, of the good effects of which upon the liver I had seen repeated instances. The proto-sulphate of manganese was, I believe, first pointed out by Mr. Ure as a powerful and effective cholagogue. It was tried in one or two hospitals, but it did not meet with that success which I think it merits, partly owing to the deliquescible nature of the salt, as commonly prepared, and partly to its having been given in much too large doses. The first objection was removed by the care of Mr. Hooper in preparing it so that I could give it in the form of pill, which is the most convenient mode. A little observation showed me, that instead of giving it in doses of ʒi. to ʒii., eight grains were quite sufficient to produce its effects. At present it seems an uncertain remedy, in some cases acting briskly and decidedly upon the liver, and producing a copious flow of yellow bile. In others it seems to produce no effect, except after a time nausea and sickness; but we are still too little acquainted with its precise mode of action to know what are the precise conditions and circumstances to which it is adapted. My patient took this medicine for more than three weeks without any marked benefit, the evacuations still continuing unhealthy, although the discharge diminished, and almost entirely disappeared for nearly six weeks. It was curious to remark, that, as the discharge declined, a number of rheumatic symptoms began to develope themselves, and become more apparent. I continued the manganese pills, and gave her liq. potassæ with iodide of potassium in decoct. sarzæ; and when the catamenia returned, although the period continued for two weeks, the discharge was moderate and without clots, the health having improved greatly. I now stopped the further exhibition of the manganese, and gave her a few doses of hydr. c. cretâ with Dover's powder instead. She also took a mild tonic of nitromuriatic acid and gentian, with which a small dose of colchicum was combined. Neither can I omit to notice the effects of the gallic acid, for although in that state of hepatic derangement it did not check the discharge, it certainly appeared to give tone to the relaxed uterus, and prevented that retention of catamenial discharge to which the fetor at the latter part of the period must be attributed. The application of the arg. nitr. was made in the hope of inducing a healthier state of the membrane lining the os uteri and canal of the cervix; but it evidently did not produce the effect I wished, and was discontinued.

PRACTICAL OBSERVATIONS ON DISEASES OF THE EAR.

WITH RECORDS OF CASES TREATED AT ST. MARK'S HOSPITAL, DUBLIN.

By W. R. WILDE, Esq., F.R.C.S. Etc.

[Continued from page 488, Vol. IV.]

Nos. 26 and 27.—INFLAMMATION OF THE MEMBRANA TYMPANI IN CONNEXION WITH OPHTHALMIA.

H. M., a female, aged 16, with hazel eyes, yellowish hair, large projecting mouth, freckled skin, glandular swellings of the neck, and other manifestations of struma; has been deaf for several weeks. There is an opacity of the cornea on both sides, arising from ophthalmia, for which she was treated at the Institution some years ago. She had also strabismus of the left eye, for which she was successfully operated on at twelve years of age.

Left side.—Hearing distance, four inches; membrana tympani opaque, densely white, and collapsed; a few red vessels course along the handle of the malleus; tinnitus.

Right side.—Hearing distance two inches; membrana tympani opaque, and of a skim-milk colour; tinnitus; never suffered from pain; never had any discharge from either ear; throat natural; tonsils not enlarged. Ordered cod-liver oil, and to have the mastoid region painted with strong tincture of iodine daily.

A. S., a female aged 12, with dark auburn hair, fair complexion, and hazel eyes, suffered from pain, redness and intolerance of light in both eyes some years ago; traces of the affection still exist in the nebulous condition of both corneæ, and she bears the marks of glandular enlargement; has been deaf five years; disease came on with pain and slight discharge from both ears; the discharge has ceased for some time.

Right side.—Meatus natural; membrana tympani thickened, opaque, and of a brownish colour, presenting the appearance of crumpled parchment; hearing distance scarcely half an inch.

Left side.—Membrana tympani devoid of polish and of a brownish red hue, with a crescent-shaped vascularity at its inferior edge; the disease on this side is evidently of a more recent date; hearing distance one inch. She states that her hearing is always better in the spring and summer, when the eyes are usually affected. Ordered oxymuriate of mercury with bark and counter-irritation behind the ears.

These cases are typical of a form of strumous inflammation of the ear with which I have been long familiar. It sometimes co-exists with, sometimes alternates with the ocular disease. What is termed strumous ophthalmia, and also corneitis, are the forms which the eye affection assumes. We often see the patient labouring under the disease of the eye in the spring and early summer, and that of the ear in autumn and winter. Both seem to be contingent on the same constitutional diathesis, but the aural affection being generally painless, and the part in which it is seated being concealed from view, it attracts little attention, or it is attributed to stupidity. Unhappily, in these cases, the mischief has been done; the thickening and deposit in the membrana tympani have already taken place; the inflammatory action has subsided; we now only witness its results; and treatment will avail but little. Improvement of the constitutional health, and placing the patients in the most advantageous circumstances, may possibly in time produce so much absorption as will give a moderate increase of hearing. I suppose these cases belong to that class which medical practitioners, not examining with the speculum, and consequently not knowing what is going forward, were heretofore in the habit of telling patients or their friends "to let alone, and that in time they would grow out of it." If we look into the statistics of deaf-dumbness for different countries in Europe and America,—and the same remark holds good with respect to the investigations now going on in Ireland on the same subject,—we shall find, among the causes of acquired mutism, "diseases of the eyes" frequently recorded. Now, as we cannot suppose that diseases of the organs of vision could of themselves produce total deafness, leading to complete loss of speech, we are forced to the conclusion, that with the ophthalmic diseases co-existed some insidious aural affection such as I have described, and so intense as to produce deafness, and, in very young persons, consequent loss of speech.

INSTRUMENT FOR UTERINE HÆMORRHAGE.

By D. DE BERDT HOVELL, F.R.C.S.E.

The accompanying diagram represents an instrument which I have found of valuable assistance in the treatment of that form of uterine hæmorrhage which occurs after labour from relaxation or inertia of the uterus.

It is unnecessary to enter upon any discussion of a class of cases familiar to every practitioner in midwifery; but, for the sake of clearly defining it, I will quote the words of Dr. Blundell on the subject:—"Some women there are, from idiosyncracy, peculiarly liable to bleeding, and very undesirable patients they are, the probability being, that they will ultimately die under your hands. Hence it becomes a question in cases of after flooding, whether we can use any means of prevention."

Such a patient it fell to my lot to attend in four out of nine confinements. Her labours were rapid at the last, the placenta slow in separating,—on one occasion, I was informed, four hours and a half, then normally; from three to four hours after the separation of the placenta, the uterus remained in a lax, flabby state, occasionally contracting, and expelling its accumulated contents, giving rise to considerable hæmorrhage, attended with exhaustion, syncope, etc. Under these circumstances, pressure with the hand, cold and ergot were employed successfully, but not without the cost of time, fatigue, and anxiety.

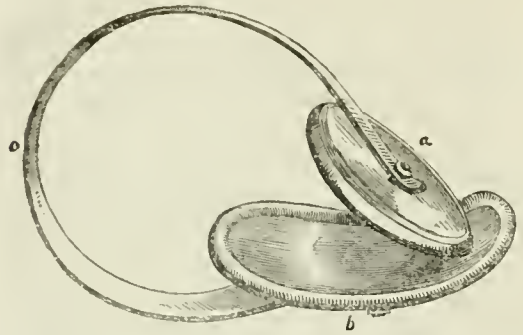
In the last confinement of the same patient, the labour was of the usual quickness, the child large. Immediately after the separation of the placenta, I applied the "uterine truss," and kept it on two hours, until the accession of after pains. During this time the uterus remained very fairly contracted, never exceeding the size of an ordinary melon; only one discharge of blood took place, and that with an audible gush, about three quarters of an hour after the application, showing the contracted state of the uterus; altogether, the amount of hæmorrhage was considerably less than usual, and the patient, in the words of her friends, "never did so well."

I have tried the truss in several cases, both of relaxation from idiosyncracy, and inertia after protracted labour. I have kept it applied three and four hours at a time, and have never known hæmorrhage to occur to any extent during its application, nor have I found the least ill effect follow its use. It often produces an expression of comfort on the part of the patient, which continues until it is time to remove it. I do not propose it as an infallible remedy, but as a very useful assistant, not to the exclusion of other remedies, but one that may be used in conjunction with them all, ergot, cold, affusion, or injection. Pressure by means of the ordinary bandage precludes the use of cold affusion.

Dr. Ramsbotham, to whom I showed the truss, observed, that Denman preferred pressure and manipulation by the hand to all other methods. For my own part, I have found the muscles of my forearm tire, to say nothing of the fatigue of constant pressure for some hours; and if, in order to attend to other points, I have committed the custody of the contracted uterus to the nurse, I have invariably found that she has failed to maintain its contracted state. Now, a steel spring does not tire, and the pressure of a seven-pound spring with properly-adapted pads acts directly on the uterus, and affords security as well as comfort to the patient. I can safely recommend its use to those that are troubled with similar cases to that quoted above, and leave it to be tested by their experience.

The question will arise, What is the *modus operandi?* The constant moderate pressure stimulates the uterus to contract; but the main point is, that the uterus is prevented from relaxing beyond a certain point, and the accumulation of blood within its cavity is prevented. The escape of blood into the atonic and flabby uterus lowers further the already depressed power, and the presence of warm blood immediately favours relaxation, although it ultimately stimulates to contraction. It is not that the uterus does not contract

in these cases, but it does not remain contracted "*hinc illæ lachrymæ.*"



a Circular sacral pad, 4½ inches in diameter.
b Oval abdominal pad, slightly concave, to be applied immediately above the pubes, 6½ inches by 4½ inches.
c Steel spring of 7½ lb. pressure.

Five Houses, Clapton.

THE LONDON PRACTICE OF MEDICINE AND SURGERY.

MEDULLARY CANCER OF BONE.

ST. BARTHOLOMEW'S HOSPITAL.

Medullary Cancer of Humerus	.....	Mr. Stanley.
,, ,, Fibula	.....	Mr. Stanley.
,, ,, Femur	.....	Mr. Lloyd.

ST. THOMAS'S HOSPITAL

Medullary Cancer of Ulna	.....	Mr. Solly.

ST. MARY'S HOSPITAL.

Soft Cancer of Femur	.....	Mr. Lane.

Before inviting the reader's attention to the details of the following series of cases, we would say a few words respecting the general history of the disease of which they are examples. That the medullary form of cancer is the kind to which the bones are most liable, is now very generally agreed. Lebert has asserted, that it is as often a secondary as a primary disease; but in this opinion, we suspect, he differs widely from most English observers. Secondary formations do undoubtedly very often follow with great rapidity after the deposition of cancer in the osseous system, but we feel little hesitation in venturing the opinion, that for them to appear in it is not at all common. Could Lebert's notion be proved to be true, it is evident that it would exercise a material influence on the practice in such cases, since nothing could well be more unwise than to remove a bone affected with cancer, when in all probability the disease already existed in another organ. As regards the bones most frequently affected, Mr. Stanley thinks the disease most common in the lower end of the femur and head of the tibia. The statistics furnished by Lebert, however, enable us to estimate with greater closeness the comparative frequency of its formation in the various bones. That pathologist has collected and analysed thirty cases of primary cancer of the osseous system. In 10 of these the disease was manifested in the superior maxilla, in the femur and tibia 5 each, in the inferior maxilla the head of the humerus and the iliac bones 4 each, in the vertebral column 2, and in the bones of the foot 1; thus giving to each of these bones a proportion per cent. of superior maxilla 33·1, femur and tibia 16·2, inferior maxilla' lium, and head of humerus 13·1, vertebral column 6·2, bones of the foot 3·1. Excepting the extremes of youth and age, cancer of the bones appears to be equally common at all periods of life. It also affects the two sexes in almost equal proportion. Two of the following cases are examples of its manifestation in the fibula and ulna respectively, bones which M. Lebert does not mention in his list. It is also known to be not very infrequent in the tables of the skull, several instances of which have recently been under our observation; and in another case there was every reason to believe that the scapula was its primary seat, but the man who was its subject did not remain under treatment long enough for proof to be afforded.

ST. BARTHOLOMEW'S HOSPITAL.

MEDULLARY CANCER OF THE HUMERUS.—AMPUTATION AT THE SHOULDER-JOINT.—RECOVERY.—RETURN OF THE DISEASE.—DEATH.—AUTOPSY.

[Under the care of Mr. STANLEY.]

Mary Ann Williams, aged 39, admitted May 12th, 1851. Beneath the deltoid muscle of the right arm there projected a firm, fixed, and ill-defined mass, which appeared to implicate the head and upper third of the humerus. In the axilla also was a large induration, which by pressure on the veins had produced great œdema of the forearm. No enlargement of any absorbent glands could be detected. She suffered intense and increasing pain, which the strongest opiates had failed to relieve; indeed, for some weeks previously, she had, she said, scarcely slept. Her countenance was extremely anxious, body wasted, and pulse quick and feeble; in fact, so great was the constitutional disturbance, that it was evident that, unless something could be done to arrest or mitigate the disease, it must soon terminate in death.

The affection had commenced spontaneously six months before admission, with pain in the arm, which gradually increased in severity, and recurred in sharp, darting paroxysms. After continuing in this manner for nearly four months, a diminution in suffering took place, soon after which she observed a swelling for the first time. The tumour then increased very rapidly, and the pain again returned as severely as ever.

M. Roux chanced to visit the hospital a few days after the patient's admission, and examined the case. He concurred with Mr. Stanley and the rest of the surgical staff in believing the disease to be malignant, and in urging its immediate removal, provided there were no reason to think that secondary deposits already existed. With a view to the determination of this point, more especially as it regarded the lungs and uterus, Dr. Burrows and Dr. West were requested to examine the patient. As neither of those gentlemen detected any disease of the internal viscera, Mr. Stanley proposed to the patient the removal of the arm without further delay. To this, however, her friends unfortunately refused to consent, and she was accordingly taken out of the hospital.

On June 7th, nearly a month afterwards, she returned, in nearly the same state constitutionally, but with great increase of the local disease. The induration had extended from the axilla to the parts below the clavicle, the tissues under the pectoral muscles being hard and swollen. Her sufferings had been extreme while at home, and she now eagerly importuned Mr. Stanley to amputate the arm. On the day after her re-admission, amputation at the shoulder-joint was accordingly performed, the patient being under the influence of chloroform. Scarcely any blood was lost; but during the operation she became so exhausted, that it was found necessary to exhibit brandy and water very freely, and ultimately to terminate the proceeding without dissecting away the whole of the cancerous mass, which occupied the axilla and subclavian space. A large piece of lint was therefore placed in the wound, with the view of exciting free suppuration. It was with great difficulty that she ultimately rallied. After a few days, the wound began to discharge freely, and at length healed by granulations, but she still continued to complain of great pain in the shoulder, which, according to her account, was scarcely diminished by the removal of the limb. The wound being healed, she left St. Bartholomew's on August 8th, and went to the Brighton Hospital, where she made great improvement, and, after a six weeks' stay, returned to her friends in tolerably good health, though still complaining of some pain in the stump, which was, however, much less severe in character than it had previously been. She had not spent many weeks at home before the tissues of the stump began to swell and become hard, and the pain returned again as acutely as ever. A large ulcer ultimately formed, and, worn out with suffering, she died in the latter end of January, 1852. At the *post-mortem*, secondary deposits were found in the lungs and thyroid gland.

The amputated arm, examined after the operation, presented the following appearances:—On making a longitudinal section of the humerus, isolated masses of brain-like cancer were found in the medullary canal, and the walls of the bone were seen to have undergone in many parts a partial absorption. From the periosteum there sprang a large firm malignant growth, which was so closely connected with it that, in attempting to separate them, the former was torn off from the bone. Microscopic examination confirmed the diagnosis, and also showed that the osseous tissue was impregnated with cancerous matter.

For the notes of this case we are indebted to Mr. Ludlow, the house-surgeon under Mr. Stanley at the time that it occurred. Notwithstanding its fatal termination, we think we may fairly congratulate Mr. Stanley, who humanely undertook the operation

under circumstances so unfavourable that they would have deterred many, on having succeeded, in all probability, in both prolonging and rendering more comfortable the life of his patient.

MEDULLARY CANCER ORIGINATING IN THE FIBULA, AND FOLLOWING IMMEDIATELY AFTER AN INJURY. —AMPUTATION.—RECOVERY.

[Under the care of Mr. STANLEY.]

George Ward, aged 24, a brewer's servant, was admitted into the Accident ward, on September 13, 1852, with the history, that a month previously he had fallen through a trap-door, and bruised the outer part of his right leg; that swelling and severe pain had followed the injury, and increased to such a degree as to oblige him, on the third day afterwards, to desist from work. He was a tall athletic man, of temperate habits, and appeared to be in excellent health. On examining the leg, there was found to be an ill-circumscribed swelling over the middle third of the fibula, around which was much general inflammation of the soft parts. It was tender when pressed, and, though no evident fluctuation could be detected, yet it excited suspicions of the formation of deep-seated matter. He felt little pain when in bed, but, on attempting to stand, the pain became so severe as to oblige him to return to the recumbent position.

A week after admission a puncture was made, in the hope of finding pus, but blood only escaped. During the next fortnight he was kept in bed, and no positive treatment adopted, when the swelling increased, and the existence of a large tolerably firm tumour became much more manifest. Excepting when the limb was moved or much handled, he suffered no pain, and his general health continued unimpaired.

On the 7th of October, Mr. Stanley made an exploratory incision into the swelling, which proved to consist of a solid substance, having a light-brown aspect, and which bled slightly. A small portion was removed for microscopic examination, which Mr. Paget reported to be made up of the structural elements of medullary cancer in an active state of growth. The only alternative now remaining was plainly the removal of the limb, and to this, after much persuasion, the patient consented to submit. The amputation was accordingly performed on the 9th of October by a double-flap operation in the lower third of the thigh. Owing to the slipping of the tourniquet, a considerable quantity of blood was lost during its performance, and it was afterwards found necessary to place a ligature on the femoral vein, as it showed no disposition to contract.

The patient recovered satisfactorily from the shock of the operation, and made favourable progress for the first two months, at the end of which the stump was nearly healed. An abscess has since formed in the outer part of the thigh, which now retards his convalescence; there does not, however, appear any reason to think it connected with a fresh development of the original disease.

Dissection of the amputated limb exposed a very large tumour, involving the middle three-fifths of the fibula, which portion of the bone it had entirely disorganised. The growth presented a rounded, slightly irregular surface, and projected outwards in all directions beneath the surrounding muscles; the latter being still attached to the distended periosteum, by which it was everywhere circumscribed except at the part where the exploratory incisions had been practised. The substance of the tumour consisted of brain-like medullary cancer, which appeared to have been infiltrated into the osseous tissue, and by its growth to have disintegrated the bone by splitting it up into layers.

Under the case from St. Mary's Hospital we have made some remarks on the connexion of cancer with injuries, of which this case affords an example, and to them we must refer such of our readers as take an interest in the subject. Before passing from the above, however, we must invite attention to the fact of the extreme rapidity with which this large mass of cancer was formed. There did not appear any reason for believing that it had commenced before the accident occurred, and between that time and the operation but two months elapsed.

MEDULLARY CANCER OF THE FEMUR.—AMPUTATION. —RECOVERY.—RETURN OF THE DISEASE.—DEATH.

[Under the care of Mr. LLOYD.]

Edward Marlow, aged 20, was admitted November 14th, 1851, with a large swelling, embracing the whole lower third of the left thigh, but being chiefly prominent on the outer side. The surface of the swelling was smooth and glossy, and a net-work of tortuous veins ramified in the skin. It felt soft, but the existence of fluctuation was uncertain. The man suffered very little pain in it, even after much handling. He stated, however, that the pain was occasionally severe. He considered that his constitutional vigour had declined since its appearance, but his aspect bore no evidences of failing health. He was a grocer's porter. Five months before his admission, while wheeling a loaded barrow, he had suddenly experienced a catching pain in the knee, which soon went away, but afterwards recurred at intervals with much acuteness. A month later he had received a blow from a cricket-ball, on the outer side of the same leg, which occasioned great pain at the time, but did not permanently aggravate his former sensations. About ten weeks before his admission, while dancing, he had suffered a severe attack of pain in the knee, which, unlike the former ones, did not subside, but continued with such violence that he was soon afterwards obliged to confine himself to bed. During the next three days he suffered most acutely, after which the pain diminished, and he then for the first time noticed that his left thigh was considerably swollen. He was compelled to lay up for some weeks, and the swelling was blistered, and subsequently covered with strapping and bandage. These latter, however, it was soon found necessary to remove, on account of the steadily increasing size of the tumour. Feeling better, he got up and resumed his work, though unable to exert himself much. As, however, the pain continued to return in frequent and severe paroxysms, and the swelling of the thigh increased, he determined to seek admission into the hospital.

No one ventured to give a decided opinion concerning the nature of the swelling at the time of his admission; the opinion, however, prevailed, that it was malignant. Mr. Lloyd accordingly made an exploratory incision into it, which was followed by the escape of from fifteen to twenty ounces of black fluid blood; and, on making an examination through the wound, the bone was found to be much disintegrated. On the following day the man was put under the influence of chloroform, and the flap amputation of the thigh performed at its middle third. Excepting a very partial sloughing of the flaps, the patient went on well after the operation, and the stump was healed in seven weeks; and in the end of September he left the hospital.

In about three months, however, he returned, with a vascular fungus growing in the situation of the cicatrix, at the extremity of the stump, and evidently connected with the remaining portion of the femur. There was also some enlargement of the inguinal glands on the same side. Amputation at the hip-joint was proposed, but he refused to consent to it, and soon afterwards returned home, where, in the course of a few months, he died. Unfortunately, no examination of the body was made.

On examining the amputated limb, it was found that the periosteum covering the lower third of the femur was expanded into one large sac, bulging most to the outer side, the walls of which contained numerous thin plates of bone, and on the posterior aspect a thick layer of compact osseous tissue, derived from the splitting up into laminæ of the femur itself. In the interior of this sac was a great quantity of black grumous blood, mixed with soft cancerous deposit, and in the centre the shaft of the bone, much broken up, and with apertures through its walls forming communications with its medullary cavity. Just beyond the limits of the swelling, the compact wall of the femur was much thickened, and corresponding to the part where the separation of the periosteum commenced, the division of the osseous structure into laminæ began, a condition apparently dependent on the infiltration of morbid matter into the interstices of its tissue. The interior of the femur for about two inches in length contained blood, mixed with cancerous matter and fat. Between this tract of deposit and the articular surface of the condyles, to within a quarter of an inch of the cartilages, the cancellous texture had undergone a process of white hardening, and for the extent of about an inch square had been converted into a substance almost as dense as ivory. Microscopic examination demonstrated that medullary cancer formed the essential constituent of the morbid growth, although it was mingled in most parts with blood, and in some with blood and fat. Cancerous matter had also been deposited in small molecules in the intimate structure of the osseous tissue.

The surface of the subcutaneous part of the tibia presented a remarkable appearance. It was spotted here and there with blood-red patches, the periosteum over which was very easily detached, and the bone below found to be so soft as to be readily cut by a knife. The whole bone was considerably congested.

ST. THOMAS'S HOSPITAL.

MEDULLARY CANCER OF THE ULNA—EXCISION OF THE AFFECTED PORTION OF THE BONE—RECOVERY.

[Under the care of Mr. SOLLY.]

Having in the preceding instances, as well as in one which we recorded last week, traced the history of rapid and acute cases of cancer in bone, it will be interesting to compare with them the following one, in which the rate of progress was much slower. Soft cancer affecting the shaft of a long bone may occur either as an infiltration into the Haversian canals of the entire structure, or as one large collection in the medullary canal. If the former have been the case, an irregular splitting up of the osseous layers is the result of its growth; if the latter, the compact external lamellæ may be gradually expanded by the pressure from within produced by the increasing mass, and this process may advance until a mere shell of thin and almost paper-like bone is all that remains. This class often pass through their early stages very insidiously; and, whilst the bone-shell remains entire, they appear to exercise very little influence on the general health of the patient, much less than is commonly done when the disease occurs under other conditions; when, however, the bone gives way, and the cancer becomes diffused into the surrounding parts, the rapidity with which cachexia is induced is often very great. The following case well illustrates these remarks, and, indeed, as regards the small amount of constitutional affection which attended it, it much surpasses what is usually observed. We have obtained most of its details from the notes taken by Mr. Rutter, the dresser of the patient:—

Lavinia Young, aged 26, a native of Chatham, of florid complexion, moderately stout, and apparently in excellent health, was admitted, on Sept. 4, on account of a painful enlargement in the right fore-arm. On examination, there was found to be a very firm swelling, which involved the distal third of the ulna. It was greatest near the wrist joint, and tapered off somewhat abruptly on going up the arm. All parts were enlarged in a uniform degree, the styloid process and other natural inequalities being very much increased in size. On handling it, the first impressions given were in favour of its being bony, but, on making firm pressure, it was found to yield slightly, and a peculiar crackling sensation was produced. In some parts it was even doubtful whether fluctuation might not be detected. There was no surrounding inflammation, and the superjacent skin was in no way affected.

The history given of the affection was, that it had commenced without known cause, two years previously, by severe and continued pain in the part, unaccompanied by swelling. The pain frequently kept her awake at night. Leeches, blisters, and various embrocations were had recourse to, but with no benefit. After a few months, swelling commenced, and the pain was somewhat relieved. Since that time it had been gradually enlarging, but the aching pain, although at times severe, had not of late interfered much with her rest. She expressed herself as certain that her health had not in any way deteriorated since its appearance, and there was no history of malignant diseases having occurred in any of her relatives.

Mr. Solly had been consulted in the case some months previous to her admission. He now felt almost certain of the correctness of the suspicions he then entertained of the presence of cancerous deposition; but as the symptoms were not quite decisive, he advised the patient to submit to an exploratory operation, leaving the ulterior measures to be determined by its result. To this the patient, who was extremely anxious about her complaint, readily assented.

Nov. 11.—Chloroform having been administered, Mr. Solly exposed the affected bone by a longitudinal incision over its posterior aspect. The osseous shell was found to be extremely thin; so much so as to be readily cut with the knife. Its interior contained a disorganised collection of dirty grumous stuff, resembling a mixture of coagulated blood and soft brain substance. This confirmation of his fears induced Mr. Solly at once to decide on the removal of the lower half of the bone. He accordingly prolonged the incision, and having detached the soft parts, which were held aside by means of copper spatulæ, sawed through the middle of the ulna with Hey's saw. Its attachments at the articular extremity were then divided without removing the inter-articular plate of cartilage, and the whole was dissected out. Several arteries required ligatures, which done, the parts were brought into apposition and confined by means of sutures and isinglass plaster. The shell of bone, which was scarcely thicker than stout paper, had been much crushed by the manipulations necessary for its removal. At the point where the saw had been applied the bone appeared to be healthy. The cavity was capable of containing a large hen's egg; it was bounded below by the articular surface, and above by osseous deposition into the medullary canal; about the commencement of the middle third of the bone, where it abruptly terminated; it was filled with a mottled, encephaloid structure, the diagnosis of which was fully confirmed by microscopic examination.

Considerable inflammation of the arm and hand followed immediately after the operation; it was, however, not excessive; and, on the whole, the patient was proceeding as favourably as could be expected, when, on the seventh day, a profuse attack of secondary hæmorrhage took place. It was controlled by the application of a tourniquet to the brachial artery, and, although no ligature was applied to any vessel, yet it did not recur. Soon afterwards it became evident that the wrist joint was involved in the inflammatory action, an abscess formed over the back of the carpus, which, on being punctured, discharged a mixture of thin pus and synovia. Under appropriate treatment, however, the swelling gradually subsided.

The wound having very nearly healed, she was allowed to return home on November 3. At that time there was still much thickening about the wrist, which was quite stiff. Her general health was recruiting. When seen a fortnight afterwards cicatrisation was complete.

On December 22 she came up to town in order to see Mr. Solly. She had gained flesh considerably, and bore the appearance of good health. The condition of the arm was most satisfactory, the remaining portion of the ulna being apparently in a perfectly sound state, and all the remains of inflammatory thickening about the parts having disappeared. The wrist joint was still stiff, and only movable to a very slight extent; she had, however, good use of the hand.

We must again call attention to the remarkably small amount of constitutional affection apparent in this case. Although the patient had had a medullary growth for two years, yet she retained a florid complexion, and had a slow pulse of good power. For the pulse to be other than quick and irritable is quite as exceptional in cases of soft cancer as in those of phthisis, and there can be little doubt but that in both affections its rapidity forms a very valuable means of prognosis. It may, therefore, be hoped that this patient has before her a prospect that the return of the disease and its termination will be longer delayed than is unfortunately the ordinary rule in this disease.

ST. MARY'S HOSPITAL.

SOFT CANCER OF THE FEMUR FOLLOWING A SEVERE DOG-BITE.—AMPUTATION OF THE THIGH.

[Under the care of Mr. LANE.]

In speaking of the influence of accidental violence in the induction of malignant diseases, Sir Astley Cooper has the following excellent remarks, which, it will be observed, agree in the main with the views so ably advocated by Mr. Paget in his late lectures before the College of Surgeons:—"Although the disease (cancer) operates on some particular part of the body, it is always preceded by a state of constitution which has excited it. He who looks at this disease in the light merely of a local affection, takes but a narrow view of it. A blow, or a bruise, inflicted on a healthy person, would be followed by common inflammation only, which would lead to the removal of the matter effused. But, if a blow were received on the breast when the constitution was disposed to the formation of scirrhous tubercle, it would be the cause of a particular action being excited in the part injured, and might lay the foundation of this complaint. Yet the formation of scirrhus does not entirely depend on constitutional derangement; there must be also a peculiar action excited in the part." We have invited attention to them because the case which we are about to relate, and also one of the foregoing, present remarkable examples of malignant growths following closely on the receipt of injury to the part. In both the injury was notable, and of some severity; but it is to be observed, that the development of cancer in each instance commenced in the bone below, and not in the soft parts on which the violence was directly inflicted. Judging from our own experience, we suspect that local causes play a much more frequent part in exciting the outbreak of malignant affections than they are usually considered to do. Chimney-sweep's cancer and cancer of the lip occurring in smokers are examples of the con-

nexion between that disease and long-continued local irritation. Two cases have recently come under our notice, in which a broken tooth appeared to supply the requisite exciting cause. The first, a patient of Mr. Cooper's, in Guy's Hospital, an agricultural labourer of middle age, and previously in the enjoyment of excellent health, was sent up from the country, in order to the removal of an epithelial growth from the mucous membrane of the left cheek. He stated, that for three years he had had in the lower jaw a broken tooth, which presented so sharp an edge that it kept his cheek, exactly in the place where the growth subsequently formed, in a state of constant irritation, and frequently made it bleed. A little cicatrix-like spot had existed there for more than a year, but its development into a cancerous sore had been the work of only about six months; the man had never smoked. The second case died in St. Bartholomew's Hospital, under Mr. Lawrence's care, a few week's ago, and the autopsy revealed a large cancerous mass in the tongue, the same disease in the cervical glands, and also in the lungs. The patient, a woman, aged 36, had had for years a broken tooth in the left side of the lower jaw, which, although it never ached, had occasioned her so much inconvenience by pricking the tongue, that her friends had repeatedly urged her to have it extracted, which, however, she could never summons sufficient resolution to do. The first appearance of the cancer was precisely in the spot which had been indented by the edge of the tooth. In neither of these cases could any history of hereditary predisposition to malignant diseases be discovered.

In the case of Mr. Stanley's, as well as in that which we are about to relate, a severe injury had been inflicted, and in each instance the patient strongly averred that previously he had never suffered ache or pain in the part. In both of them, severe pain followed soon afterwards, and was succeeded by a tumour, which proved to be cancer. We see no reason for doubting but that the injury really did in each case exert a material influence in fixing the disease to a particular locality, and probably, also, in exciting its outbreak at that particular time.

Benjamin Wakeley, aged 16, a red-haired and delicate-looking, but very intelligent lad, was admitted on September 27, on account of swelling and pain over the right knee. Three months previously he had attended the hospital as a casual patient, having been bit in the same part by a large bloodhound. The wound was a deep one, but it healed kindly, and he soon ceased to regard it. About a month afterwards, he began to feel an aching pain in the lower part of the bone, which often kept him awake at night; it had, however, not been sufficient to keep him from work until quite lately. As far as he knew, no relations had ever suffered from cancer. On examining the knee, the scar of the bite, about two inches above the patella, was still plainly visible; beneath it was a deeply-seated softish tumefaction, the true nature of which did not appear very evident. It gave him no pain on pressure, and never ached severely, but the knee felt so weak that he was unable to walk with any comfort.

Dec. 7.—Since the last date, although the boy has been confined to bed, and various local measures, leeches, blisters, etc., have been tried, yet the swelling has decidedly increased, and very much so within the last fortnight. The soft tumour, which at first existed only in front of the bone, has gradually spread to both sides. The skin over it, although tense, is not inflamed, nor does pressure in any part occasion pain. Over the anterior and inner part fluctuation is very distinct, and less so in other parts. Mr. Lane has for some time felt little doubt as to the character of the disease, but, wishing to make more certain, he has twice had punctures made in the softest parts, which, however, have yielded only a glairy, tenacious fluid, mixed with blood, in which the microscope could detect no malignant structure. The boy has lost flesh considerably, and his pulse has ranged throughout from 90 to 104.

8th.—The lad, having consented to Mr. Lane's advice that he should lose his leg, was this morning brought into the operating theatre, and, having been put under the influence of chloroform, Mr. Lane amputated the thigh at the lower part of the upper third. Having been removed from the table, Mr. Lane made some remarks on the reasons which had induced him to choose that part in preference to removing the whole femur by amputation at the hip-joint. He stated, that in one case in which he had removed the whole bone for medullary disease, the return in other organs had been more rapid than in a similar one in which he cut through the affected bone. In most situations he should prefer to proceed according to rule, and remove the entire bone; but when the femur was concerned, he did not believe that the advantage gained was at all commensurate with the additional risk of an amputation at the hip-joint.

Since the operation, the boy has done as well as could be expected. He takes food and looks better, but his pulse has increased in frequency.

In examining the removed parts, the bursa beneath the quadriceps tendon was found to be distended with a glairy chocolate-coloured fluid. Its lower part was involved in a growth of pale brain-like cancer, which surrounded the front and sides of the lower fourth of the shaft of the femur. On making a longitudinal section through the whole, a large cyst, containing a brown fluid, was seen, around which were numerous spots of ecchymosis. About an inch above the condyles, and separated from them by a portion of cancellous bone, which had undergone the process of "white hardening," and was very dense, the deposit of gelatinous-looking masses of cancer in the medullary canal commenced, and extended for several inches upwards. At the part where the section had been made, the walls of the bone were still thick and strong; in many places, however, their periosteum and outermost lamellæ had been split off by the deposition of cancer beneath them; and derived apparently from this source, were small plates of bone in several parts of the growth itself. The juice of the tumour, which was everywhere abundant, exhibited under the microscope

appearances which we have here represented, and which, though not affording specimens of the best-marked kinds of cancer cells, were yet unmistakable. Mr. Bullock, the house-surgeon to the hospital, to whom we are indebted for many particulars of the case, informs us that he detected cells of a suspicious character at the part where the bone had been sawn through.

THE LONDON HOSPITAL.

SPONTANEOUS FRACTURE OF THE HUMERUS, PROBABLY FROM MALIGNANT DISEASE OF THE BONE.

[Under the care of Mr. ADAMS.]

The foregoing cases, taken together, illustrate pretty accurately the most usual course of symptoms when a bone is affected with malignant disease. The first is a severe, aching, and deep-seated pain confined to one part, and usually considered by the patient to be of rheumatic origin. When this has lasted for a period varying from a few weeks to several months, it often decreases materially in severity, and, at the same time, the bone is observed to be gradually enlarging; next a soft, pseudo-fluctuating swelling makes its appearance, and the pain is again very much mitigated. Simultaneously with these local manifestations, the patient usually loses flesh and strength more rapidly than may be accounted for by the mere want of rest. It would seem that the phenomenon of pain is due mainly to mechanical causes; while the cancerous particles are being deposited in the yet dense and unyielding osseous structure, it is severe; when the bone begins to split up into plates, it is relieved; and when the growth escapes its confinement, and is permitted to grow freely in soft parts, it undergoes a yet further alleviation. In the following case, although the nature of the disease has not yet been conclusively demonstrated, the symptoms have been so well marked, that but little doubt can, we think, attend the diagnosis.

Ann Bliss, aged 34, a married woman, in whose family malignant diseases were not known to have ever occurred, was admitted on Oct. 19, 1852. She stated that, a year and a half ago, she had begun to experience very severe rheumatic pains in the upper part of the right arm. There was then no swelling or other apparent alteration of the parts, but the pain, which was of a gnawing character, frequently kept her awake at night, and was so easily aggravated by pressure, that she dreaded the slightest touch. Ten months ago she had observed a general enlargement of the bone, and, still more lately, the pain had become much less severe, though still sufficiently so as to often prevent her from sleeping. She had been under many surgeons, but had derived no benefit from their treatment. Since last May she had been attending the hospital as an out-patient under Mr. Ward. Although with an increasing sense of weakness, she had been able to use the arm until within a few weeks, when she had lost the power of moving it, but was not aware of any fracture having taken place. Her general health did not appear to have been much interfered with; although spare, she was florid, and not in any way cachectic-looking; she had been confined with a healthy child within the last year. On examining the shoulder, there was found to be very considerable enlargement around the upper third of the humerus, involving all the soft parts in a firmish, ill-defined swelling. The skin was of a dusky red, and crossed by numerous enlarged veins.

The articular head of the bone was naturally movable at the shoulder-joint, but, on attempting to rotate the shaft, a very distinct crepitus was felt a little below the surgical neck.

Mr. Adams advised the removal of the arm at the shoulder-joint, but this she refused to submit to; and, having remained in the hospital for six weeks, she ultimately left in much the same condition as when she entered, except that the swelling had perceptibly increased. Various anodyne applications had been used, and with some benefit. It is worthy of note, that although her general health appeared to be tolerably good, yet, during the time she remained under observation, her pulse was always quick and irritable, seldom ranging much under 115 per minute. She has been discharged with the understanding that she is to be re-admitted at any time, if willing to submit to the measures proposed; and, should that be the case, we shall not fail to bring before our readers the result of the treatment.

It will be an interesting point to be ascertained at some future time, whether the infant which this patient gave birth to during the progress of her disease ever becomes affected with cancer. It would appear that the laws of hereditary transmission ought to obtain with a peculiar force in the case of one whose fœtal life was supported by the fluids of a parent in whom that disease actually existed at the time.

Medical Times & Gazette.

SATURDAY, JANUARY 8.

THE MIDWIFERY EXAMINATION AT THE COLLEGE OF SURGEONS.

The plausible manner in which the new Midwifery Examination at the College of Surgeons has been converted into a weapon for aiming another blow at our unhappy Profession has caused us to receive letters from Practitioners in all parts of the country, couched in language of indignant remonstrance. We need make no apology, therefore, for reverting to the subject, in order to point out more fully than we have hitherto done the dangers which threaten the Profession, unless the new scheme be very considerably modified or altogether abandoned.

As before remarked, we can have no possible objection to the institution of an examination in midwifery by the Royal College of Surgeons; on the contrary, we highly approve their conduct in giving a due degree of prominence and importance to this necessary and indispensable branch of medical practice; and we should be glad to find them incorporating a series of questions on midwifery with the general examination for the diploma, as is done at most examining Boards in civilised countries. But we enter our most decided protest against instituting an examination in midwifery *alone*, inasmuch as it is only a branch of medicine and surgery, and not a distinct science by itself.

We believe that it is the first time that an attempt has been made to create a qualified class of men-midwives, who, without undergoing any general examination in medicine or surgery, in chemistry or in pharmacy, are to be paraded before the world as Licentiates in Midwifery of the Royal College of Surgeons of England. The nearest approximation to such a class of persons is probably the community of *sages-femmes* in France, who are regularly educated to attend women during delivery; and another somewhat analogous class may perhaps be found in the *Officiers de Santé* of the same country, who consist of persons possessing no qualification as surgeons or physicians, but who practise to a limited extent among the poorer classes, and perform some of the drudgery which is considered beneath the dignity of the regular professors of the healing art. But neither of these classes bears more than a faint resemblance to the body of men which the College of Surgeons of England propose to create. To imagine a branch of the Medical Profession which confines its duties to attendance upon parturient women; which, in other words, performs solely the offices of the midwife, leaving the performance of surgical operations to the surgeon, and the prescribing of medicines to the licentiate in medicine, is a mere flight of fancy, and the College can have no intention to perpetrate any such absurdity; but we are compelled to conclude, that whatever may be the intention of the College in their recent step, the necessary result will be to throw an immense mass of the practice which now legitimately belongs to the General Practitioners into the hands of an inferior and almost uneducated class. We say almost uneducated, because, although the College has prescribed a curriculum for its men-midwives, it is very inferior in extent to any of the curricula recommended by the other licensing and examining Boards; and, what is of far greater importance, even if the curriculum were much more extensive than it is, the candidates are not to be examined upon any subject whatever except midwifery.

Now, surely we do not require to be told, in the middle of the Nineteenth century, that without an examination into the candidates' attainments, all curricula are absolutely worthless; this truth is everywhere admitted. Would the Universities of Oxford and Cambridge, for instance, be satisfied if their alumni had attended the curriculum laid down for them, without passing their examination? would they grant them their degrees merely upon the production of certificates from the College professors and tutors? Are not solicitors compelled to undergo an examination upon the various branches of English law before being admitted to practise? Nay, are not young men destined for the Army, the Navy, the East India Company's Service, and the Merchant Service, compelled in the present day to pass through an ordeal which shall test their knowledge, before they can be admitted to enter upon their respective duties? But the uselessness of mere attendance on lectures, and the necessity of examinations, are now so universally admitted, that it is mere waste of time to argue the question. The fact is, that certificates of attendance upon lectures merely prove that the student *has paid a certain sum of money*, but afford no evidence that he has profited by the instructions offered to him, and are given sometimes when the student has never attended any lectures at all!

But there is another point of view in which this subject may be regarded. We admit that it is occasionally necessary to encourage the pursuit of knowledge by instituting examinations of a superficial character at first, and progressively elevating the standard as the facilities of obtaining instruction become greater. This system is at present being pursued by the Pharmaceutical Society, who are daily admitting members without any examination at all, and inviting others to come and submit to an easy test of their attainments, telling them at the same time that the examinations will become more and more stringent every year. Now, all this is as it should be; for we are saying nothing more than the truth when we state, that the educational status of the chemists and druggists of this country is lamentably low, and any effort to raise their condition ought to meet with encouragement and support; we therefore commend the Pharmaceutical Society, and wish them success in their praiseworthy exertions.

But, in the name of common sense, is there any necessity for lowering the standard of education of the Medical Practitioner? Are the opportunities for acquiring information so

scanty, are the average abilities of the Profession so despicable, are the aspirants for practice so few, that it is necessary to hold out an inferior curriculum, an inferior education, and an inferior examination, to tempt men to enter the ranks of the Profession? On the contrary, is not the Profession rather overstocked than otherwise, are not the average talents of its members very great, are not its emoluments disproportionately small, and is it not necessary to check unlimited competition by the only fair and honourable means, namely, by raising—instead of lowering—the standard of qualification?

But we have not done with this subject; it is of far too much importance not to claim our utmost vigilance, and we shall not fail to return to it at an early opportunity. Suffice it to state, for the present, that the General Practitioner, by his education, his talents, and his character, has raised himself during the last half-century to the position of an educated gentleman, and he has justly gained for himself the confidence of the community. Among his other duties, one of the most important is the attendance upon the weaker sex during their hours of sorrow, of suffering, and of danger. This trust has been confided to him by the general consent of the public, who have hitherto regarded him as a gentleman, a scholar, and a man of science; but if the hybrid animal, the phantom of which has been raised by the Royal College of Surgeons, is to enter the domestic circle, and carry off a great portion of the practice and of the emoluments which belong to the fully-educated practitioner, we had better at once renounce our views of the progressive improvement of the Medical Profession as an idle dream, and relapse into the ignorance and empiricism of the last century, from which we had fondly hoped the science of Medicine had been finally emancipated.

BAD BEER, OR BAD MEASURE.

If Mr. Disraeli's Budget has not proved the stepping-stone to fame, or the foundation of a long official life for its author, it must at least be allowed that it has roused public inquiry, and directed attention to many abuses which, from the patience with which they have hitherto been endured, have almost threatened to become permanently engrafted upon our national customs. Not the least important of the subjects brought under general discussion by means of it, is the bottled-beer question,—a question to which we wish to draw the attention of our readers, as it affects in no unimportant manner our sick poor, especially those of the Metropolis and other large towns. There are few Medical Practitioners, and certainly none who have seen much of dispensary practice, who have not frequently had occasion to deplore the difficulty experienced by their less wealthy patients in obtaining good, wholesome beer,—such beer as could be taken with benefit as a tonic during convalescence from a depressing sickness. To allow them to drink the "cabman's mixture," as sold round the corner at the "Blue Lion," or at the "Pig and Blanket," would be in many cases simply to permit them to injure their already weakened constitutions; they are, therefore, generally advised to procure bottled ale or stout, in pints or quarts, as may be thought fit. Now, to the class we are at present alluding to, every penny is at all times an object of care, but more especially so in times of sickness, when the scanty savings of many months are easily disbursed in a few days. It is, therefore, a matter of just complaint and of particular hardship, that for every pint bottle of beer purchased they should be mulcted in probably one-third of their due, solely to enrich the already too wealthy brewer, or the well if not over paid retailer. But, say the monopolists, "the public, when they order a dozen of beer, never suppose that they are getting imperial measure; but, on the contrary, wine measure;" or, in other words, the excuse appears to be merely this,—that the purchasers are cheated with their eyes open. Now, putting aside the absurdity of the argument, our own experience on the subject teaches us that this statement is by no means correct, in whatever sense it may be taken; for we can, in the first place, assert that many, and, in fact, all belonging to the uneducated classes, do expect to obtain imperial measure,—that is to say, such measure as they procure in buying draught malt liquor,—until taught by experience the folly of looking for that which they never receive; and, in the second place, it is notorious that even wine measure is not given; so that, in reality, no standard whatever is adhered to, the capacity of the bottle depending solely upon the conscience of the merchant, or the assumed gullibility of the British public. Under these circumstances, it is clear that one of two things must happen. Either the size of our beer bottles must be altered, so as to hold the imperial pint or quart, or, if they are to remain as they are, they must pass under some other denomination than is at present used to designate them. Let us adhere to the good old English custom, which there is some reason to fear we are forgetting, of calling things by their right names: a pint should be a pint, and a quart a quart. As the case at present stands, the injustice is all on one side; the consumer, who can the least afford to suffer, is the principal victim. It has been said, that the present dishonest practices in the beer-trade are the result of over-competition. Judging by the cost of malt and hops, and the price demanded, we cannot see how this can be; but we think it may be asserted, that any brewer may at once obtain a good business, without any puffing or advertising, who will give the public that to which they are entitled, namely, bottles containing full measure.

KESWICK AND ITS SANITARY CONDITION.

One of the most honourable traits in our Profession is the anxious desire manifested by its members to improve the sanitary condition of the country. To their unpaid services the public is indebted for almost every improvement, the object of which is to prevent disease and diminish mortality. A powerfully-written little pamphlet has just fallen into our hands illustrating this fact.(a) On the borders of one of the most lovely of the English lakes, and all but within sight of another, under the shadow of the mighty Skiddaw, and bounded on two sides by that gem of streams the Greta, lies the pleasant town of Keswick, to which and its neighbourhood Londoners, Manchester men, and Liverpool merchants, resort in the summer months to inhale pure air, and lay in stocks of health for the remainder of the year. With an atmosphere the most brilliant, scenery the most cheerful, and water the purest in the whole island; with every external advantage that conduces to length of days,—deficient in no one of the *natural* conditions of health,—in a county noted for its special instances of longevity, and in a parish the mortality of the out district of which is only fourteen in the thousand,—Keswick enjoys unenviable *artificial* conditions that swell its mortality to twenty-three in the thousand.

What, then, are the circumstances that give to the town of Keswick, with its population of 2600 only, this bad pre-eminence? Fourteen deaths annually in a thousand inhabitants of the neighbouring villages and dale, and twenty-

(a) To the Ratepayers of the Township of Keswick, on the subject of Public Health. By D. Lietoh, M.D.

three in every one thousand inhabitants of Keswick. The reply is, Keswick is ill-drained, ill-cleansed, and ill-ventilated; and hence it is, that of every four children born in it, one dies before it is a year old,—hence, to use Dr. Lietch's words, "this frightful massacre of the innocents,"—hence it is that nearly half its inhabitants die before they are twenty years of age,—"hence this deadly arrest of the human race on the very threshold of life,"—hence it is that Keswick has an annual mortality of twenty-three in the thousand, while the other parts of the parish of Crosthwaite have a mortality of fourteen in the thousand. And what is the remedy for this sad state of affairs? Dr. Lietch's pamphlet was written to urge the application to Keswick of the Health of Towns' Act, and so to insure the removal of some of the causes of disease and death. Two arguments have been brought forward in Keswick, as elsewhere, against the advocates of this measure—1st., that towns are *necessarily* more unhealthy than country places. To this the answer is, the mortality in well-built, drained, and ventilated parts of towns is frequently less than in most country villages. "The village of Braithwaite, for example," says Dr. Lietch, "contains in proportion to its population more dirt, disease, and death, than any decent town. It is one of the most romantic and filthy villages in England." 2nd., the impropriety of interfering with domestic arrangements or vested rights, to compelling men to spend money on that which affords no pecuniary return. "But if," as Dr. Lietch forcibly puts it, "a man may not harbour a ferocious bull-dog in his alley, is he to keep a noisome ditch running at large there? and if he may not hold a main of fighting cocks, is he to keep cholera and typhus in his house? If a Justice of Peace can stop a man from knocking another down with a bludgeon, why should he not be authorised to interfere to save him from a typhus fever."

Cholera, it seems, "with unerring instinct," sought out one of the worst alleys in Keswick. Should Dr. Lietch's address to his neighbours have the effect he hopes, he will indeed have deserved well of his fellow-townsmen, and the invalid who visits Keswick to restore his health may feel grateful to him, too, that he does not carry from it the seeds of some more serious disease than that from which he hoped the mountain breezes would relieve him.

ANONYMOUS REVIEWING AND THE *BRITISH AND FOREIGN MEDICO-CHIRURGICAL REVIEW.*

The Profession owe to Dr. Forbes a lasting debt of gratitude for the establishment of the *British and Foreign Medical Review*. Under the Editorship of Dr. Carpenter, that Journal fully sustained its high reputation. In its pages have appeared not only the most able summaries of our knowledge in every branch of Medicine, not only criticisms which bear intrinsic evidence of being written by masters of our science, but, under the name of "review," original treatises of the highest character. So long as the writer of a review limits himself to summaries and criticisms founded on previously recorded experience, his articles lose little in weight by being anonymous; but directly he makes a statement resting on his own observation, directly he places his own facts in opposition to those of the author, or offers them in support of the latter, at that moment the nameless "we" loses all authority, and the reader feels the disadvantage inseparable from anonymous reviewing. This disadvantage is, we say, inseparable. But in addition to it, there are most serious incidental disadvantages which will at once suggest themselves to every man's mind. The present able Editor of the *British and Foreign Medico-Chirurgical Review* has determined, therefore, that, as the rule, the names of their authors shall be affixed to the reviews, in warrant of their impartiality, of their scientific value, and of the worth of the new facts brought forward in them. This alteration cannot fail to be highly acceptable to the Profession. It constitutes an important era in the history of the medical literature of this country.

In the following extract the Editor speaks for himself:—

"A review is simply an inquiry into the validity of an author's statement by the aid of previously-admitted facts, or by the assistance of others known only to the reviewer as the result of his proper observations. To give these last their due weight they must be authenticated. A writer who merely builds up his argument with well-known truths, or with the opinions of other men, may remain anonymous; but whenever he resorts to his own experience he must guarantee it with his name. An unavowed statement is dead to science, and no one recognises a veiled authority."

The names of Beale, Carpenter, Chatto, Coote, Jenner, Johnson, Wharton Jones, Kirkes, Walshe, Weber, and Willshire, of London; Laycock, of York; Begbie, of Edinburgh; Day, of St. Andrew's; and Lyons and Robert Williams, of Dublin, appended to articles in the current number, are sufficient guarantee of its excellence, as well as of the absence from its pages of sectarian littleness.

Another new and important feature in the *British and Foreign Medico-Chirurgical Review* is the introduction of a section devoted to Original Articles. Those contained in the present Number are of the very highest order in point of scientific value. They are by Dr. E. A. Parkes, on the Action of Liquor Potassæ on the Urine in Health; by Dr. Sankey, on the Specific Gravity of the Brain; by Mr. Marshall, on certain Elastic Structures connected with the deep Flexor Tendons of the Fingers and Toes; and by Mr. Toynbee, on the Function of the Muscles of Tympanum in the Human Ear.

Changes so important as those to which we have adverted, in one of the first critical authorities in Europe, seemed to us to require especial notice, and therefore it is that we have mentioned them in this part of our Journal.

REVIEWS.

Syphilitic Diseases: their Pathology, Diagnosis, and Treatment; including Experimental Researches on Inoculation, as a Differential Agent in Testing the Character of these Affections. By John C. Egan, M.D., M.R.I.A., formerly Surgeon to the Westmoreland Lock Hospital. 8vo. Pp. 346. London: Churchill. 1853.

The critic of medical and scientific writings, like the practitioner of medicine, knows but little of feasts and holidays, or of any striking variation in the course of his avocations. To the students of general literature, the presence of Christmas is at least brought home by hosts of ephemeral, perhaps, but certainly light-hearted, productions. Not so with us, however. Our publishers are heartless; our Press will not recognise any change of season. No *Punch's Almanack*, nor "History of Colonel Esmond," nor "Life of Peg Woffington," graces or enlivens our literary board; but on the very threshold, as it were, at the very commencement of that which we trust may prove a prosperous and happy new year to our readers, we find our table covered with medical, surgical, and physiological treatises, demanding notice. At the head of these stands the work of Dr. Egan, on "Syphilitic Diseases," who has long been known to the Profession in Ireland by numerous interesting and valuable papers which have from time to time appeared in the Dublin medical journals. Having enjoyed much greater opportunities for investigating the nature and treatment of syphilitic diseases than fall to the lot of most practitioners, he has been at all times anxious to communicate the results

of his experience to his less fortunate brethren; and, in accordance with this principle, the present volume has been published. In it will be found all that the modern researches on syphilis, both in this country and on the continent, have brought to light, more especially as regards the question of inoculation, which has been rendered principally familiar to us in the present day through the experiments of Ricord. The history of venereal diseases has attracted so much attention from others during the last few years, that our author does not think it necessary to say much on this part of his subject. He quotes, however, the opinions of Astruc, Swediaur, Benjamin Bell, Carmichael, and Ricord, as to the antiquity of these affections, justly remarking, that—

"Although history enables us to trace the existence of venereal affections from the earliest period, it must nevertheless be admitted, that the disease assumed a much more formidable aspect at the close of the fifteenth century, its destructive ravages first becoming manifest at Naples, (caused no doubt by the admixture of the numerous troops,) and thence rapidly extending over all Europe. Jerome Fracastorius, the historiographer of that day, accurately details a new and destructive form of the disease, namely, the phagedænic, involving in its ravages the pudenda of the female, a species of ulceration characterised by a disposition to break out afresh, either in the original or adjacent structures, after the healing process had apparently terminated; and we have likewise enumerated (as we shall see when we come to treat specially of this form of the disease) its usual sequelæ, rupia, affections of the bones, ulceration of the throat, tonsils, etc., by a writer who was ignorant of the connexion existing between the primary and secondary varieties of the disorder, and who had consequently no preconceived opinions to support. The intimate relation which the local bear to the constitutional symptoms was originally taught in the year 1784 by Hunter, who was the first to give anything like a scientific classification of venereal diseases, and whose definition of the true syphilitic chancre that bears his name must ever remain as a memorial of unparalleled accuracy of observation, emblematic of the descriptive powers of a master mind."—P. 9.

On the appointment of Dr. Egan to the Westmoreland Lock Hospital, in 1843, he appears to have commenced a series of experiments on the subject of inoculation. These are all detailed in the pages before us, and will well repay attentive perusal; but their nature and extent may be in some measure imagined, from the following deductions which have been drawn from them:—

"1stly. That the virus of gonorrhœa is different in its nature and properties from that of chancre, inoculations from the former never giving rise to a specific ulcer, while that of the latter, when inserted beneath the skin during the stage of ulceration, is generally succeeded by the characteristic pustule.

"2ndly. That abrasions of the mucous membrane are likely to ensue from the irritating quality of a gonorrhœal discharge in its early or incipient stage. That although no appreciable effects result from the inoculation of these excoriations, still mild forms of secondary sysmptoms have been observed to supervene on this affection, when no other species of disease could be detected on most careful and repeated examinations. In no case, however, has the matter of gonorrhœa produced venereal ulcers.

"3rdly. That sufficient testimony has been advanced to prove that these severe constitutional affections, reported to have resulted from gonorrhœa alone, have been caused by concealed urethral chancres, and not by any peculiar virus contained in the discharge, and hence has arisen the mistake of recommending the employment of mercury for the cure of uncomplicated gonorrhœa.

"4thly. Sympathetic buboes, usually consequent on gonorrhœal inflammation, are uninoculable, although here a mild description of secondary symptoms is occasionally met with.

"5thly. Buboes, the result of absorption of the poison of a venereal ulcer, can generally be inoculated, provided the operation be conducted in accordance with established rules. From the failures, however, which have occurred during the course of these experiments, I am obliged to dissent from the aphorism laid down by M. Ricord, that when applied to the diagnosis of buboes, inoculation may be considered as forming an unexceptionable and pathognomonic sign.

"6thly. The superficial non-indurated primary ulcer is sometimes inoculable, at other times not. Each description of sores is occasionally followed by mild constitutional symptoms.

"7thly. That in the indurated and excavated ulcer, inoculation supplies a valuable and unerring test, the characteristic pustule being always the result of the operation.

"8thly. That the cause of failure in inoculation of the pus of phagedænic ulcers has been probably owing to the time at which the matter was taken, viz., at a period when the process of ulceration was rapidly advancing, whereas, the most favourable opportunity would seem to be in the intermediate stage between ulceration and reparation, when the virus would appear to concentrate itself. The ulcer produced by inoculation is identical in its nature with that from which the pus is taken.

"9thly. Secondary and tertiary symptoms produce no effect upon inoculation.

"10thly. If the inoculated part be freely touched with nitrate of silver, previous to the fifth day, no ill consequences are likely to ensue."—P. 9.

The remaining pages of the treatise are devoted to the consideration of venereal diseases, in all their stages and varieties, and as they occur in both sexes. The matter is well-arranged, and the descriptions are characteristic and clear, though, at the same time, we have found no novel views, nor any suggestions as to treatment with which our readers are not already familiar. It is unnecessary, therefore, to do more than recommend the work of Dr. Egan as containing all that is at present known on the subject on which it treats.

A Treatise on Electricity in Theory and Practice. By Aug. de la Rive. Vol. I. Pp. 564. London: Longman and Co. 1853.

The development of the science of electricity is one of the greatest wonders of the age. That the same subtle and mysterious agent should attract a feather and induce a thunderstorm,—should decompose water and also effect its recomposition,—should promote vegetation and be intimately associated with animal life,—should guide the mariner across the ocean, and should communicate information with inconceivable velocity,—should destroy life, and should also be employed as a remedial means in the treatment of disease,—that all these properties, so various and even contradictory in their nature, should be attributable to a single power of nature, appears almost incomprehensible to the human understanding. Yet the daring genius of Franklin, the brilliant discoveries of Davy, the startling analogies revealed by Oersted, and the laborious and unrivalled researches of Faraday, have proved the language we have just employed to be nothing but the expression of sober truth.

A complete treatise on the science, including not only the history of electricity, properly so called, but also that of galvanism, electro-magnetism, and magnetism, and reducing to an harmonious and symmetrical system the multitude of facts, experiments, and arguments, which bear upon this comprehensive subject, was a desideratum to the philosopher and the student; and the want appears likely to be supplied by the work of De la Rive, the first volume of which has now made its appearance, and the rest of which is promised in the spring of the present year. The ex-Professor of Geneva is well qualified, by his previous pursuits, for the great task he has undertaken, and the present volume bears ample testimony to his scientific character.

This first volume is divided into three Parts: the first gives a general preliminary view of the whole subject, and explains the different modes by which electrical phenomena are produced; the second treats of Electrical Attractions and Repulsions, of Induced Electricity, of the Leyden Jar, and of the two theories as to the Nature of Electricity; the third Part contains a copious exposition, occupying 369 pages, of the Laws of Magnetism and of Electro-Dynamics, in which the immortal researches of our great countryman Faraday are duly recorded.

We regret that our space, being devoted particularly to subjects immediately relating to medicine, does not allow us to review at length this admirable work, which we nevertheless strongly recommend to our readers and to the scientific world in general.

On the Growth of Plants in Closely-glazed Cases. By N. B. Ward, F.R.S., F.L.S. Second Edition. London: John Van Voorst. 1852.

The new edition of the above work contains, in addition to the contents of the former, the results of many years' experience of Mr. Ward's plan for the growth of plants, and is, moreover, embellished with several beautiful wood-cuts.

By means of the closely-glazed cases, the most delicate and interesting plants have been grown in the soot-charged atmosphere of the densely-peopled quarters of our large towns. Other plants of a more useful character have been transported, in a perfectly vigorous condition, to and from distant countries. One of the Navigator Islands was supplied, through their agency, with a living specimen of the banana, the offsets from which are now distributed all over the island; and Mr. Fortune has recently conveyed in them from Shanghae to the Himalayas, nearly 20,000 tea-plants.

It appears to us, as medical men, that one of their most important applications is to the chamber of the invalid. Of the "ills that flesh is heir to," some are remarkable for running a tedious course, while others are beyond the reach of human skill. In the treatment of these, the intelligent practitioner will do his best to sooth and cheer his patient. The presence of flowers and plants, and the little attentions which they invite, will materially aid his efforts; causing hope, where it may be encouraged, to wear a more roseate hue, and, even where it is excluded, dissipating the surrounding gloom, and promoting the "euthanasia." The closed cases may be resorted to for the sick room with advantage, when flowers are not readily to be procured, or when their exhalations might prove prejudicial.

From the success which attended the growth of plants, Mr. Ward was led to believe that his plan would apply equally well to animals. He, accordingly, some years back, established a miniature lake—an aquarium—in one of his larger cases, in the water of which gold-fish disported beneath the shade of overhanging ferns. He was also led, by rational inference, to believe, that, the requisite conditions being observed, a closely-glazed case might be constructed for the reception of human beings. Hence the idea, which originated with him, of a sanatorium on sound philosophical principles. But we transcribe his own account of the subject:—

"In April 1838, in a lecture delivered by Professor Faraday, on the closed cases, at the Royal Institution; and later in the same year, at the Meeting of the British Association at Liverpool, I expressed my opinion that animals and man might benefit by the same plan of treatment which had proved so successful with plants. In 1842, in the first edition of this work, I stated that a little reflection will convince us that this idea is not so visionary as it might appear at first sight, as I had proved by numerous and long-continued experiments that the air of London, if duly sifted, was perfectly fitted for the respiration of all plants, even of those with the most delicate leaves, such as the trichomanes speciosum, which may, in fact, be considered as a test-plant as regards the purity of the air. Now, this same condition of the atmosphere, so essential to the well-being, and even existence, of such plants, we have it in our power to obtain in large towns, and, by warming and moistening the air, we can, in fact, closely imitate any climate on the face of the earth. It cannot be denied that, in a pure and properly regulated atmosphere, we possess remedial means of the highest order for many of the ills that flesh is heir to; and every medical man knows well, by painful experience, how numerous are the diseases which, setting at nought his skill and his remedies, would yield at once to the renovating influence of pure air. The difficulty to be overcome would be the removal or neutralization of the carbonic acid given out by animals; but this, in the present state of science, could easily be effected, either by ventilators or by the growth of plants, in connexion with the air of the room, so that the animal and vegetable respirations might counterbalance each other. . . . . With respect to consumption, could we have such a place of refuge as I believe one of these closed houses would prove to be, we should then be no longer under the painful necessity of sending a beloved relative to a distant land for a remote chance of recovery."

The construction of a sanatorium, upon the principle thus clearly expressed by Mr. Ward, was first attempted by Sir J. Paxton in his design for a building of the kind in connexion with the Hospital for Consumption at Victoria Park. It appears to us, however, that the benefit likely to accrue from it will be but limited unless the further suggestion of our author, to make the entire hospital a sort of artificial Madeira, be acted upon.

In conclusion, we would recommend our readers, especially those who are resident in towns, to enliven their homes by one or more Ward-cases; and, as a guide in the construction of such, to avail themselves of the pleasing little volume which has elicited this notice.

The Principles and Practice of Dental Surgery. By Chapin A. Harris, M.D., D.D.S., &c. Fifth Edition. Philadelphia: 1853. 8vo. Pp. 800.

We have read this excellent work with much satisfaction. Its value may be anticipated from the fact of its having reached a fifth edition, as well as from the circumstance, that Dr. Harris is Professor of the Principles and Practice of Dental Surgery at the Baltimore College, one of the Editors of the *Quarterly Journal of Dental Science*, and the author of a Dictionary devoted to the same subject. He therefore possesses qualifications for the task he has imposed upon himself, which industry and zeal can alone obtain; and we are only giving him the credit he most honourably deserves, when we say, that the views and opinions put forward in the present treatise merit the attentive perusal and consideration of every surgeon-dentist who wishes not only to be a skilful operator in his department of practice, but also a scientific practitioner.

PROGRESS OF MEDICAL SCIENCE.

SELECTIONS FROM FOREIGN JOURNALS.

ON SYPHILISATION.

The Academy of Medicine in Paris has been occupied in discussing the question, whether, on the principle of vaccination preventing the occurrence of variola, inoculation with the poison of syphilis may not prove a defence against the venereal disease. Although this demoralising and disgusting practice has been justly condemned by the Academy, yet there are sure to come forward some who will persist in their experiments, regardless of the consequences which such proceedings entail. It is with pleasure that we see the *Presse Médicale de Bruxelles* denounce, in no measured terms, this attack upon public decency. "We have witnessed, in the Hôpital St. Pierre at Brussels, the dangers of these successive inoculations undertaken to excite an hypothetical counteracting power, the existence of which is doubted. We have seen, among the women subjected to these experiments, the sixtieth chancre just as active and as well developed as the first. In one female the poison seemed to be exhausted after the fortieth inoculation; but, when fresh poison was applied, the illusion disappeared, and the chancre became perfectly formed, and capable of producing the usual effects by inoculation. M. Begin spoke, during the discussion, of the immorality of the proceeding. 'The cicatrices of the artificial ulcers, produced by inoculation, remain during life; that fact is indubitable; but the thought, that the persons subjected to the experiments bear ever about them the marks of syphilis, does not stop the footsteps of these innovators in syphilisation. The law has suppressed, even for infamous offences, all corporal brandings; and you, professors of syphilisation, in some mad experimental freak, impress upon young girls the indelible stain of their youthful indiscretions and disorders. Seduction, misery, bad example, evil advice, may drive many to prostitution, and you render them, by your experiments, fixed in their slough of guilt. It is impossible for them to emerge without being exposed to angry recriminations for a fault which they may endeavour to wipe out by the cultivation of every virtue. But you reply, the cicatrices are only on those parts of the body which are covered. In society there is no part of the body which can be said to be quite safe from being exposed to examination. Multiply your experiments on monkeys, dogs, rabbits, pigeons, and whatever animals you please, but spare man; let him be placed beyond the pale of your investigations in such a subject as this.—*La Presse Medicale*, Sept. 5, 1852.

HOPITAL ST. PIERRE.

OBSERVATIONS ON TUBERCULOUS TESTICLE, FROM THE SERVICE OF PROFESSOR THIRY.

By M. VALERE PETIT, Elève Interne.

V. Charles, aged 18, tailor, a man of feeble cachectic habit, was admitted into the Hôpital St. Pierre, Jan. 1, 1852. He had never enjoyed good health, but had suffered from dry cough and undefined symptoms about the chest. At one time he had spit large quantities of blood. A year ago he noticed a painless enlargement of the right testicle, without known cause. At the base (quære epididymis) an abscess formed, which burst, leaving a fistulous passage; then pain and constitutional disturbance ensued, and the patient became much emaciated. The testicle is irregularly elongated, and equal in size to the closed fist of an adult. There is a fistulous passage at the inferior extremity, and a probe passes thence into a circumscribed cavity about the size of a hen's egg. At the upper part the tunica vaginalis is distended by fluid; the spermatic cord is sound. M. Thiry let out the fluid in the tunica vaginalis, but did not remove the organ, as there were symptoms of suspicious character, upon auscultation, in the lungs. The symptoms and the history of the case were sufficient to point out its nature. It was not enlargement from any of the usual forms of inflammation. The occurrence of the abscess rendered cancer improbable, and there was neither the history nor the appearance of a venereal testicle. Was M. Thiry right in declining to remove the organ, upon the ground that the disease would then show itself with greater intensity in organs essential to life, as the lungs? We think not. Tubercle in the testis rapidly becomes propagated along the course of the deep lumbar glands, and proves as fatal as phthisis pulmonalis. The removal of such a source of suffering as an enlarged testicle quiets the patient's mind, enables him to resume his usual healthful habits, and places him in a much better position as regards the chance of recovery. As to adopting M. Malgaigne's proposition of extirpating the tuberculous cavity and the fistulous sinus, it cannot be tolerated for a moment. M. Thiry, we are happy to find, does not support such a proceeding. There is not, we are sure, a museum in London which would not show how uncertain are tuberculous deposits in the testicle, both as to number and situation. A partial extirpation would leave part of a useless organ, in which there might be masses of the same morbid deposit in a nascent state. M. Thiry, in the *Presse Medicale de Bruxelles*, September 12, 1852, states, through his reporter, that he does not believe in tuberculosis of the testicle without the co-existence of the tuberculous diathesis in the whole economy; and he thinks, that after the removal of the testicle, the condition of the patient becomes even more lamentable than before, from the great probability of the disease manifesting greater activity. His patient's health improved under general treatment, and the man left the hospital at his own desire.

TRAUMATIC CATARACT IN INFANTS.

By M. GUERSANT.

M. Guersant adopts the singular practice of venesection, to prevent the occurrence of opacity of the lens after wounds, blows, and other injuries to the eyeball. He prefers opening a vein in the arm, even of young infants, to the application of leeches, because he then knows how much blood he abstracts. If the occurrence of cataract is imminent, blisters are applied to the neck and temples; and derivatives are prescribed for the intestines. We read with surprise that these opinions are uttered in the month of September, 1852. Had the date been 1652 we might have felt less astonishment. The treatment of traumatic cataract by venesection is not, we presume, a serious idea. The same author imagines that when the cataract has existed from a year to fifteen months, there is danger of atrophy of the retina. Upon these grounds, M. Guersant operates in congenital cataract the day after birth. He says the child scarcely cries, absorption is easy, and there are no accidents. In about ten to fifteen days, the retina begins to exercise itself, and vision becomes as good as if there had been no blindness. M. Guersant *never* operates by extraction. He uses the needle freely, and not uncommonly pushes parts particularly hard into the anterior chamber, where the absorbing power is more active.—*La Presse Médicale.*

EXPERIMENTS TO PROVE THAT THE NUTRITIVE CENTRE OF THE SENSITIVE SPINAL FIBRES EXISTS IN THE INTERVERTEBRAL GANGLIA, AND THAT THAT OF THE MOTOR FIBRES IS IN THE SPINAL CORD.

By M. WALLER.

M. Waller, of Bonn, has from former experiments come to the conclusion, that the nutritive centre of the sensitive spinal fibres is in the intervertebral ganglia, while that of the motor fibres is in the spinal cord. In order to obtain the counter-proof to these observations made on the roots of the spinal nerves, there remained the examination of the effects of the section of the spinal cord upon these roots. M. Waller divided the spinal cord of a dog between the third and fourth lumbar vertebræ without denuding the cord. There ensued an almost complete loss of sensibility and of movement in the posterior part of the trunk. At the end of twenty days he found that the paralysed parts were but very slightly melioriated, and the animal was then killed. The following appearances were noticed upon examination after death:—The wound of the spinal cord was cicatrised, and was indicated only by a slight circular constriction and by some slight adhesions of the opposed surfaces of the arachnoid. In the inferior segment of the spinal cord the fibres of the posterior medullary fasciculus were in a normal state from the point of section to the inferior extremity. Along the whole course the spinal cord was composed of large fibres with double contors presenting numerous varicosities.

In the superior segment, from the point of section to four centimetres higher, the posterior medullary fasciculus was disorganised; the large fibres, usually so abundant, were absolutely wanting, and the disorganisation extended deeply into the fasciculus.

In the inferior segment the fibres of the anterior roots of the three superior pair of nerves, *i.e.*, the fourth and fifth lumbar, and the first sacral, were all more or less disorganised. In the fourth pair the anterior root was atrophied. The anterior root of the fifth pair was composed of normal and disorganised fibres, in nearly equal proportions. The posterior roots corresponding to the preceding, were in a normal state. In another dog the spinal cord was divided between the fourth and fifth lumbar vertebræ. The examination of the nerves of the left side below the section, showed the fibres of the anterior roots completely disorganised; that of the sensitive roots, in a normal state. After a similar experiment of a frog, it is said, "these observations confirm that which the author has established, after the section of the spinal roots, that the nutritive centre of the anterior roots is in the spinal cord, while that of the sensitive roots is in the intervertebral ganglia. The applications to pathology are immediate. It is seen what is the condition of the spinal cord after ordinary wounds. It may be said, that in all cases of this kind, when there is a division of the organ extending to the anterior fasciculus, the anterior roots of the inferior segments will be found disorganised, while the posterior corresponding roots are in a normal state. In the experiment upon the frog it was remarked how, in a case of old disorganization of the spinal cord, the sensitive fibres, in connexion with their ganglia, preserved their normal structure, while the motor fibres were quite altered.—*La Presse Méd.*, Sept. 19, 1852.

UNEXPECTED EFFECTS OF THE EMPLOYMENT OF CARBONATE OF MAGNESIA IN THE CASE OF WARTS.

By Dr. Lambert de Hagueneau.

A stout girl, whose hands were covered with warts, consulted Dr. Lambert for gastralgia, and was ordered to take carbonate of magnesia. At the end of two months the gastralgia remained unaltered, but the warts had disappeared. M. Lambert administered the same medicine to a young lady, in the dose of a tea-spoonful night and morning, for a similar affection. After fifteen days of the use of the powdered magnesia the warts became flattened and smaller; they dried up, split, and fell off in fragments, and at the end of five weeks had disappeared without leaving a trace.—*La Presse Médicale*, Bruxelles, Sept. 26, 1852.

ON THE PATHOLOGICAL PHYSIOLOGY AND THE TREATMENT OF CHRONIC DISEASES OF THE HEART.

AN ESSAY READ BEFORE THE SOCIETE DES HÔPITAUX, AT PARIS.

By D. Monneret.

The first part of the work is devoted to the principal complications which affect the different viscera, and especially the lungs, the liver, and the kidneys. Sanguineous conges-

tion presents itself in these organs under different appearances, which are, however, identical in reality. We speak of cirrhosis in the liver, œdema, chronic catarrh, apoplexy, engorgement in the lungs, etc. For the causes of these morbid conditions we recognise; 1, increasing intensity of valvular lesion and of hypertrophy; 2, diminution of the muscular contractile force of the heart; 3, the retardation of the blood in parenchymatous tissues, whatever be the cause; 4, general or local debility of the nervous system. M. Monneret details the different symptoms which precede these four orders of causes, of which the degree of energy is variable according to the epoch of the malady, and the constitution of the subject. M. Monneret thinks, that for practical and therapeutical purposes, it is not greatly important to know the characters of the different forms of lesion which attack the cardiac tissues and the orifices of the heart. The division of hypertrophies into orders and species does not appear to him capable of affording valuable indications of treatment. On the contrary, the degree of force or of weakness which one sees manifested in the cardiac contractions, and in the capillaries of organs, and especially the condition of the general powers, form the source of indications which the physician should prize. Thus Corvisart's distinction of aneurisms into active and passive is preferable, because it represents, at the same time the organic lesion, the condition of the vital forces, and of the circulation, whether cardiac or capillary.

In the second part of the essay, M. Monneret endeavours to establish his principles of therapeutical indications. They consist in acting; 1, upon the heart; 2, upon the capillaries; 3, upon the blood. General blood-letting is too frequently employed without reflection, in all diseases of the heart. It should be forbidden in anæmic subjects, in old people, in all cases where the cardiac contractions are weakened, or where there is a great amount of visceral congestion, tending to produce general anasarca or serous effusions. The best mode of regulating the circulation is to institute a strict preventive hygiene, and to have recourse to local depletions when the visceral congestions are established. The employment of digitalis also is abused; it is often given when the heart's action requires to be stimulated, and not depressed. The effects of digitalis, badly administered, are, increasing difficulty of the cardiac circulation, syncope, dyspnœa, and increase of the dropsical effusions; the same with narcotics, and especially with opium. They should be ordered with extreme reserve. Tonic and stimulating treatment is preferable in the greater number of cases. The preparations of iron, vegetable bitters, cinchona, frequently bring back the blood to a healthy state, and the constitution may be stimulated by the judicious administration of wine, spirits, coffee, etc., thus tending to diminish visceral congestion. This mode of treatment, says the author, is practised in Germany and in England with great success. Expectorants, purgatives, diuretics, and sudorifics respond to certain particular or general indications, which M. Monneret points out with accuracy. Finally, antispasmodics have a wonderful effect in calming nervous excitement, and that nervous irritability of which the respiratory apparatus is so often the seat.

M. Aran blames M. Monneret for attempting, in the present state of our knowledge, to establish general and absolute laws for the treatment of all maladies of the heart, without exception. He also justly finds fault with the vague term *chronic diseases of the heart, morbus cordis*. We should not, observes M. Aran, groupe together pericarditis, chronic endocarditis, hypertrophy of the heart, dilatation of the organ, and fibrous or cartilaginous degeneration of the valves. As regards the alteration in the composition of the blood, MM. Becquerel and Rodier have shown that it consists in diminution of the albumen and of the blood-discs, an alteration which M. Aran regards as consecutive to the deterioration of the vital forces of the economy. He is surprised that M. Monneret, who, with justice, makes change in the blood play so important a part in the production of hæmorrhages, has not noticed the fact here mentioned. The principal distinction which should be established for therapeutical indications, is to know whether the cardiac lesion be simple, or whether it be accompanied by the phenomena of passive congestion. Then, in the first instance, it will be the condition of the heart which must occupy the attention of the physician; in the second, it will be the congestional phenomena and their consequences. He thinks rest most important in the treatment of these diseases, and mentions the case of a patient sixty years of age, who had been a sufferer for thirty-five years, and has had, during the time, frequent attacks of hæmoptussis. These attacks ceased upon his marrying and leading a regular life. Afterwards, becoming a widower, he relapsed into his former habits, and the hæmoptussis returned; but still his general health is good, and M. Aran believes that he has a fair chance of living a long time.

PUBLIC BATHS AND WASHHOUSES.

Baths and public washhouses are to be established in the centre of one of the most populous districts of Brussels, thanks to an energetic society which has worked for this end. The municipal authorities of Brussels have not worked so energetically as they might have done for the good of the city; the public health has long been neglected, and that law has been forgotten which says, "cleanliness is next to godliness." M. Horace Say justly remarks, that those who are clean in their persons become economical and orderly. Nothing is more true; habits of personal cleanliness induce neatness in clothing, attention to the lodging and the food, and all that is of use in daily life.—(*La Santé*, 1853.) This movement, we are happy to state, has long been actively going on in London; and it is pleasing to find that a work so purely philanthropic is duly appreciated by our continental brethren. The dwellings of the poor are likewise exciting attention, in relation to the mortality of the working classes. Dr. Lebon has published a work on the Habitations of the Working and Indigent Classes at Nivelles; and Dr. Van Haesendonck has brought out another upon the Suppression of the Cemetery of Saint Willebrord at Antwerp. We shall in the course of the present year relate the principal improvements which have been effected for the melioration of the working classes in our own Metropolis and in other large cities.

GENERAL CORRESPONDENCE.

"MANLY VIGOUR" IMPOSTORS.

[To the Editor of the Medical Times and Gazette.]

"On commence à reconnoître au jour d'hui que la médecine et la morale sont deux branches de la même science, qui, réunies, composent la science de l'homme."

SIR,—In answer to your call upon your readers for information of any cases of extortion practised by the "manly-vigour impostors," I beg to mention one instance of an attempt to victimize a young Frenchman, which has lately come to my knowledge. A young nobleman consulted me a short time ago, in a desponding mood, for weakness of the sexual organs. He complained of an almost constant spermatorrhœa, and an inability to approach one of the opposite sex without experiencing *une perte seminale*. However, his greatest anxiety arose from the idea that this state of his organs was incompatible with matrimony, his parents being most desirous that he should form a certain alliance. The subject evidently kept his mind in a state of gloomy pre-occupation. Observing this young man, about 23, to be in the rudest health, and of a warm temperament, my first impression was, that his ills proceeded from an imaginary source; and, in the course of my interrogation, I learned that he had some time past picked up the French translation of the book of a doctor of London, and had made himself intimately acquainted with the obscene stories and illustrations of that work. Further, that he forwarded a pound to Dr. ——— to London, for advice, who prescribed pills from which he derived no advantage; that he subsequently received a communication from him which guaranteed a recovery, on the receipt of twenty pounds. The young man replied to this, that it was not convenient for him at the moment to remit so large a sum of money, when he was very good-naturedly requested to send all that he could command at present, and pledge his word of honour to make good the remainder. This last propnsition had a refrigerating effect, and the correspondence then ceased. My advice was to abstain scrupulously from reading all such productions, and not give his generative organs another thought. The result was, that he soon found himself free from the inconvenience complained of, aad laughed heartily at his own folly. Those disgusting publications are, for the most part, to be found in the hands of young men, and I am sorry to say there are few without them. Youth is the soil upon which the filthy germ falls, and from which it derives its greatest sustenance; youth, when the passions are strong, the sensibilities keen, and the imagination ardent. At that season of life, the mind is ripe for the reception of everything which concerns its domi-

nant passion, love; and the instinct of propagation, wisely associated by nature with youthful vigour, startles at even the shadow of physical imperfection. You very properly observe, that impotence in the young is the rarest of all afflictions. Youth and impotence is a paradox. What our "manly-vigour" philosophers call weakness, is but the excess of physical power, unrestrained by moral control. And surely, for such an excess, obscene tableaux and scandalous tales of human depravity pandering to an ignorant morbid curiosity, are no remedy. When the body suffers, what relief can we expect by poisoning the mind. Plato or Socrates would not have recommended such to the Athenian youth. Manly exercises, with wholesome, instructive reading, and avoiding everything calculated to disorder and excite the imagination, are the proper remedies.

Medical authors frequently cite the advice of J. J. Rousseau against the vicious propensities of youth:—"Si les fureurs d'un tempérament ardent deviennent invincibles, mon cher Emile, je te plains; mais je ne balancerai pas un moment, je ne souffrirai pas que la fin de la nature soit éludée. S'il faut qu'un tyran te subjugue, je te livre par préférence à celui dont je veux te délivrer quoiqu'il arrive je t'arracherai plus aisément aux femmes qu' à toi."

Such is the opinion of Rousseau, an opinion unworthy of a great philosopher. However, it cannot surprise much, as emanating from a man who led a life of concubinage, and sent all his children to a foundling hospital. Did he possess no other means of stemming the torrent of the animal passions than that of indulgence? Had he not a moral, rational being to deal with? Knowing, as he did well, the reciprocal action between man's physical and spiritual existence, he might have hoped, by enlightening and calming the one, to tranquillize and chasten the other. But such a mode of subduing organic turbulence did not suit the man of whom Thomas Moore writes:—

> "Out on the craft! I'd rather be
> One of those hinds that round me tread,
> With just enough of sense to see
> The noonday sun that's o'er his head,
> Than thus, with high-built genius curst,
> That hath no heart for its foundation,
> Be all, at once, that's brightest, worst,
> Sublimest, meanest in creation."

With many apologies for this long digression, I beg to conclude by expressing my astonishment that the press of evangelical England should prostitute itself, by allowing its pages, for a sum of money, to be polluted by abominable advertisements, which have no other object in view beyond that of infamously speculating and imposing upon the credulity and weakness of mankind.

I am, &c. STEPHEN MORIARTY, M.D.

Dieppe, Faubourg de la Barre, No. 4.

TARTAR EMETIC IN TEDIOUS LABOUR.

[To the Editor of the Medical Times and Gazette.]

SIR,—I have read the report of several cases respecting "the Use of Tartar Emetic in Tedious Labour, by J. Stedman, Esq.," in which he draws the conclusion, that the "tartar emetic" has some "specific effect in relaxing the os uteri," and hastening the labour. Now, I am much more inclined to think, that the success which attends the administration of the remedy is mainly attributable "to the vomiting which it produces," and it is on this alone that the efficacy of the remedy depends. "Sick labours are proverbially good ones," as every old woman allows; and I think any other drug causing nausea and vomiting would produce precisely the same effect as the "tartar emetic." It is very rare to find a labour much protracted, if attended with early vomiting, and I always hail that symptom as being likely to bring the labour to a speedy termination. I am inclined, too, to think, that "the act of vomiting" causes an increase of the secretions from the glands in the vagina, as I have often found the parts, at first dry and unyielding, after the action of vomiting become speedily lubricated. I do not at all disparage the use of the "tartar emetic," as being well suited to produce the effect desired; but I do not think that, *per se*, it has any "specific effect" which may not be obtained by any other agent, causing a corresponding action on the stomach. In the cases reported, "vomiting" was the result of the administration of the remedy, and the labours progressed rapidly afterwards.

With respect to the comparison between the "tartar emetic" and the "ergot," I cannot at all coincide with the writer, as the "latter" is universally known to exert an influence "totally different from any other remedy" on the gravid uterus; and I can confidently assert, that where it has been administered, in my practice, "at the proper time," it has never failed to excite the uterine action to greater activity, and that, if given "in a full dose," (viz., half a drachm infused in boiling water for twenty minutes) it will "almost always succeed" in producing such expulsive pains as will speedily finish the labour.

I am, &c. PERRY DICKEN.

Ashby-de-la-Zouch, Leicestershire.

THE CASE OF MR. KIRWAN.

[To the Editor of the Medical Times and Gazette.]

SIR,—On behalf of the Liverpool Medical Society, I request an early insertion of the following.—I am, &c.

T. F. GRIMSDALE, Hon. Sec.

"At a special meeting of the Liverpool Medical Society, held on the 29th ult., called to discuss the medical evidence in the case of Mr. Kirwan, and to consider the propriety of presenting a memorial to the authorities praying a remission of his sentence, the following resolutions were unanimously agreed to:—

"'That it is the opinion of this meeting, that the great preponderance of the medical testimony goes to prove that drowning was the proximate cause of death.

"'That there are no medical grounds for the belief that the drowning was homicidal.

"'That there is no proof that the injuries described were not inflicted after death.

"'That there are not any appearances described which cannot be satisfactorily explained on the supposition that the death was accidental.

"'That these resolutions are arrived at independently of personal sympathy or interest; that they are proposed from a sense of duty, and after mature deliberation, as the members of the Society believe that the conviction has taken place in consequence of the nature of the medical evidence adduced at the trial, or a misinterpretation of it by the jury.

"'That a memorial embodying these resolutions be forwarded to the Home Secretary, the Lord-Lieutenant of Ireland, and the Medical Journals, and that such memorial emanate from the Society, and be signed by the Chairman and Secretary of the special meeting.'

"Signed on behalf of the meeting,

"JOHN CAMERON, Chairman,

"THOMAS F. GRIMSDALE, Hon. Sec."

REPRESENTATION OF THE UNIVERSITY OF LONDON IN PARLIAMENT.

[To the Editor of the Medical Times and Gazette.]

SIR,—At a meeting of the lecturers of the York Medical School, the question of the representation of the University of London in Parliament was discussed, and it was thought that such representation was highly desirable, inasmuch as the Profession might thereby obtain a more direct voice in public affairs. It was the unanimous opinion of the lecturers, that inquiries should be made as to whether the franchise would be conferred on the teachers in provincial schools irrespectively of their being Graduates of the University, and that it would be well to communicate with the journals as to this point, with the view of ascertaining the opinions and intentions of parties interested.

Would you therefore afford me the opportunity of calling the attention of the teachers and professors in the provincial medical schools and the Committee of Graduates to this important subject?

I am, &c. JAMES ALLEN,

Secretary to the York Medical School.

TREATMENT OF ACNE AND BOILS.

[To the Editor of the Medical Times and Gazette.]

SIR,—In your "Retrospect of Practical Therapeutics," *Medical Times*, Jan. 1, 1853, you mention the successful treatment of acne and boils, at the Cutaneous Hospital, by administering the ferruginous salts with saline aperients. Would you allow me to suggest, that the local application of the ung. sulph. Ph. Lond., applied every night, more especially in acne simplex, will be found most beneficial; of course combined with the administration of the medicine recommended in your Journal. I have found great success attend the above practice. I am, &c.

B. MALLAM, M.R.C.S.L., L.A.C.

Iver Lodge, Hammersmith.

PUERPERAL CONVULSIONS.—CRANIOTOMY.

[To the Editor of the Medical Times and Gazette.]

Sir,—I have read in a late Number of your Journal an account of a case of puerperal convulsions, in which the operation of craniotomy was performed, evidently with the view of arresting the fits, and thereby relieving the patient.

It appears that the labour was progressing, and I cannot but think, therefore, that the operation was resorted to hastily, and, as the results turned out, uselessly, for the fits continued after delivery—no uncommon occurrence.

There certainly was a time when accoucheurs thought that the fits depended upon the condition of the gravid uterus, and immediate delivery was then the common practice; but in those days the great majority of women and children were lost. That opinion, I thought, was long ago exploded amongst leading accoucheurs; and I recollect that thirty years ago, when I was practising as a man-midwife, it was held but by few, and those of the old school, whilst the principal accoucheurs in this metropolis, such as Sims, Gooch, Merriman, and others, laid it down as a maxim, that "any interference or meddling" with the uterus under such circumstances was pernicious, and aggravated the fits.

By the practice under this more modern opinion, I think it will be found, by published statistics, that the majority of women and children are saved.

The subject is unquestionably one of great importance to society, for the life of a child, though it live but for a few minutes, is often valuable to the survivors, and ought not, even in that minor view, to be hastily sacrificed.

Puerperal convulsions present, beyond a doubt, one of the most alarming conditions of the lying-in woman that fall under the care of the accoucheur. It requires the knowledge and firmness of experience to manage cases of the kind, and conduct them to happy results; but, even in the best hands, it sometimes occurs that the mother or the child, or perhaps both, are lost.

I have made these remarks solely in the hope of eliciting from the distinguished professors of the present day such observations on the subject as may be useful to young practitioners, amongst whom, I fear, there is too great a promptitude to resort hastily, though at the same time to the best of their judgment, to the dreadful operation of craniotomy.

Several shocking cases of craniotomy were published, two or three years ago, in the *Provincial Medical and Surgical Journal*, and soon after noticed, with condemnation, by the *Medical Times*. I had hopes that what was said on that occasion would have made a lasting impression on the minds of accoucheurs, and conduce to arrest the hand of the practitioner where any hope remained of saving the life of the child without endangering that of the mother; yet, from cases which occasionally transpire, I am apprehensive that the life of the child is too often unnecessarily sacrificed.

As I have long ceased to practise in the department to which this subject belongs, putting my name to this communication could add no weight to what I have said; and, as I am too old to begin to seek for notice, I withhold it, but, at the same time, I send you my card. I am, &c. M.D.

London.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

Cæsar Hawkins, Esq., F.R.S., President, in the Chair.

UTERINE POLYPI.

Dr. Ramsbotham remarked, that as the subject of uterine tumours had engrossed of late so much of the Society's attention, he had brought down a few specimens, because they tended in his opinion to determine the question, which was still *sub-judice* as to their being of a malignant character or otherwise. It was true that a section of the common uterine tubercle displayed an appearance very much resembling that of malignant scirrhus. There was the same greyish coloured matter intersected in different directions by the same kind of thin, dense, white lines, so as to make the appearance of the two surfaces very similar; but he was not prepared to concede that similarity of appearance necessarily involved similarity of nature; he thought something more was required; and, except in this particular, these fleshy tubercles, as Hunter called them, had no analogy with malignant disease. They did not inoculate the neighbouring organs, not even the glands in their vicinity; and although they sometimes did undergo the process of softening in their centre, that was the exception and not the rule; and they were much more prone to take upon themselves calcareous degeneration. The size which they sometimes attain, too, would argue against the supposition of their malignancy. He displayed one, attached to the uterus, of the size of that organ when eight months' gravid. Indications of softening were to be observed in the centre here; but when did a tumour of a malignant nature ever acquire such a magnitude? In another preparation there were two tumours, each considerably larger than the fœtal head at birth, placed antero-posteriorly, and compressing the uterus between them. The woman from whom this specimen was taken, a patient of his father's, died from the irritation which the bladder and rectum, as well as other pelvic contents, sustained; and in one of the tumours there is a depression moulded on the promontory of the sacrum, large enough to allow the fist of a child three or four years old to lie in it. As a proof how little these tumours interfere with the structure of the different parts of the uterus, unless they are imbedded in its substance, he displayed a preparation where a tubercle as large as a pullet's egg was attached by a pedicle to the fundus, and where the os uteri was so natural, that he was in the habit of showing it at his lectures as the best specimen of its shape that he could find. And, further, that they did not prevent impregnation taking place, and gestation going on to a period near the full time, was evident by another, where a transverse rent of the neck of the uterus had occurred in labour; while the whole substance of the body and fundus was largely studded by tubercles of various sizes. It was not uncommon for polypus and fleshy tubercle to exist together. In one preparation there was fleshy tubercle, a small polypus, and an incipient dropsical condition of both ovaries; and in another the stem of a polypus, which the doctor had removed by ligature, springing from the fundus, while two or three large tubercles were imbedded in its substance. The lady whose uterus was thus diseased died from an accidental cause more than eighteen months after the operation; and it was curious, that although the stem remaining was nearly as long and as thick as a man's thumb, and quite within the uterine cavity, for the last twelve months of her life she menstruated with exactness. Though polypus and fleshy tubercle often existed together, he could not regard them as identical tumours, and showed a polypus, the size and shape of an elongated Windsor pear, attached to the fundus uteri. He could not understand how that shape could be obtained while the polypus was still entirely within the cavity, as in the case under consideration. It could not be fashioned by the shape of the uterine cavity, because it was narrowest where the uterus was widest, and *vice versa*.

Dr. Handfield Jones exhibited a preparation showing a peculiar

MAMMILLATED STATE OF THE MUCOUS MEMBRANE OF THE STOMACH.

This condition of the mucous membrane of the stomach was found to depend on an aggregation together of numerous tubules, with atrophy of the intervening tissue. The tubules were filled with epithelium, the particles of which were often opaque from the presence of oily contents. The change did not appear to be the result of inflammation.

A case was also mentioned in which there was simple atrophy of the stomach tubules, the epithelium being reduced to little more than mere nuclear particles, and the tube being scarcely discernible parately.

Two others were mentioned in which fatty degeneration of the tubes appeared to be taking place.

A specimen of an unusual non-crystalline form of uric acid was exhibited.

EXTRAVASATION OF BLOOD INTO THE PONS VAROLII AND CEREBELLUM.

This specimen, which was exhibited for Dr. Ogle by Mr. Pollock, was taken from a man, aged 65, whose previous history was unknown. He was seized with a fit early in the morning, while at work, and lay insensible for some hours, his fellow-workmen thinking that he was drunk. About the middle of the same day, he was brought into the hospital in a state of insensibility, his pupils being contracted, and the left hand and arm powerless. His breathing was stertorous, but there were no convulsions. The pulse was full, rapid, and bounding. He was bled, and treated with calomel and enemata. He died the same night.

Post-mortem Examination.—Extravasated blood was found under the arachnoid, on the surface of the right cerebral hemisphere, and a large quantity had been also effused beneath the arachnoid, at the base of the brain. In addition to this, blood had been extravasated into the substance of the pons, and slightly into the contiguous portion of the cerebellum. The ventricles were

distended with bloody fluid. Microscopic examination by Dr. Sieveking and Mr. Barlow, of the Westminster Hospital, showed that the larger vessels of the brain had undergone atheromatous degeneration, and that the smaller ones contained fatty and calcareous matters deposited abundantly in their walls. There was a thickened state of the parietes of the left ventricle of the heart, and a fatty condition of the muscular fibres. The kidneys were also fatty.

EXTRAVASATION OF BLOOD IN THE HEART, LIVER, AND KIDNEYS, AFTER FEVER.

Dr. Bristowe exhibited, for Dr. Risdon Bennett, the heart, liver, and kidneys of a young woman, 17 years of age, who died with low typhoid symptoms. All the cavities of the heart contained adherent softening coagula, the puriform contents of which consisted of granular matter, oil globules, and imperfect cells, probably decaying white corpuscles. The liver presented generally a nutmeg appearance, but in some patches was remarkably pale, and in others highly congested; and in its right anterior angle, surrounded by intense congestion, was a buff-coloured fibrinous deposit, about the size of a filbert. A large branch of the hepatic vein leading from this spot was filled with a slightly adherent coagulum. Many of the liver-cells contained more oil than natural, but not sufficient to constitute fatty degeneration. The kidneys were rather large; and as they resembled one another, the description of one will suffice. The capsule was removed with ease; the surface was smooth, but presented a very peculiar appearance as to colour; it was studded with numerous irregular whitish patches of various size, similar, but somewhat more numerous, and still larger patches, of a dark red, almost black colour, and numerous patches of intermediate shades of red. All these were irregularly mixed up together, and were scattered like islands and continents in an ocean of healthy structure. The white patches, however, were very distinctly circumscribed, and generally entirely surrounded by the coloured ones. On section these appearances were found to extend throughout the whole cortical substances, and in a somewhat less degree into the medullary. The smaller arteries, those between the cones, were decidedly thickened, but microscopically presented nothing abnormal; many of them were blocked up with coagulum. Microscopic examination of the altered parts of the kidney showed that all the appearances were due to extravasation of blood, and its consequences, both into the inter and intra-tubular portions of the kidney. No disease was found in the lungs, spleen, or any other organ. The surface of the chest and neck was studded with petechiæ and similar minute extravasations of blood were found in the fat and cellular tissue of the walls of the chest and abdomen. Very minute points of a similar character were found on some parts of the heart and lungs. The blood was remarkably fluid and watery throughout the whole body, the only recent coagulum of any kind being some very small and soft brick-red clots in the cavities of the heart.

Dr. Markham showed specimens of

TUBERCULAR DEPOSITS IN THE LUNGS, KIDNEYS, AND SPLEEN.

and furnished the following account of the case:—

J. C., a sweep, aged 22, had always been a stout hearty man up to about ten weeks before his death, when he was seized by cough and difficulty of breathing, which prevented him working. He did not then seek medical advice, but wandered about exposed to the late inclement weather, and badly fed. He came into the St. Mary's Hospital under Dr. Alderson, on the 19th November, and died on the 19th December. He presented many of the physical signs and general symptoms of tubercular disease of the lungs, and such was the diagnosis. A few days before his death, pericarditis and pleurisy manifested their presence. Treatment had no effect in arresting the progress of the disease. Both lungs were found studded with tubercular deposits, some of them lying immediately beneath the pleura, and posteriorly both were slightly covered with recent deposits of lymph. The pericardium contained about 11 oz. of serous fluid tinged by blood, and the anterior surface of the heart was slightly roughened, especially at the roots of the arteries. The spleen was likewise thickly studded throughout with tubercular matter, healthy tissue intervening. The kidneys both contained deposits, but less abundantly than the other organs. The other organs were healthy, and no deposits were found in them. The rapid and malignant progress of the tubercular disease was striking in this case; it was, however, hard to understand why no deposit should occur in other organs, when its development is so energetic. One or two interesting facts were noticed affecting the diagnosis. The amount of tubercular matter in the apices of either lung was about the same, but the dulness was markedly greater under the right than under the left clavicle; the right apex was adherent to the costal pleura, the left unattached. From what Dr. Markham had observed in other instances, he believed that this difference was to be accounted for by the union of the lung to the walls of the thorax, thereby probably interfering with the vibrations produced by concussion. The pericardial friction sound was manifest enough over the lower part of the sternum; but over the base of the heart, at the roots of the great arteries, a double sound was heard, of such a character that the most practised ear would have been puzzled to assign to it its real origin. It was rather considered as endocardial, but it was in fact exocardial. Dr. Markham observed that he thought this difficulty of distinguishing between these murmurs was often much greater than generally supposed.

EPITHELIAL CANCER OF THE TONGUE.

Dr. Quain exhibited a specimen of Epithelial cancer of the tongue, taken from a gouty subject. The history of the case was as follows:—

J. D., aged 55, was first attacked with gout 12 or 13 years ago, and from that time to within a month of the appearance of the cancer, he continued to suffer from the disease. Last May his attention was attracted to a tumour at the root of the tongue, which on examination was found to extend upwards towards the right palatine arch. Beneath the integument, close to the angle of the jaw, was an enlarged and hard lymphatic gland. The tumour increased, and at length began to ulcerate, from the exhaustion consequent on which process he died at the close of last month. The morbid growth presented all the characters of epithelial cancer, and some of the cells had been placed by Dr. Quain under the microscope, for the inspection of the members. Some needle-like crystals of urate of soda from one of the small joints were also exhibited microscopically.

Dr. Bristowe presented specimens of

TUBERCLE IN THE PERITONEUM AND IN THE FALLOPIAN TUBES,

removed from an unmarried female 25 years of age. The lungs were studded with grey miliary tubercles. The cavities of the pleuræ were obliterated by old membranous adhesions, and the pericardium was uniformly adherent by means of a layer of somewhat recent fibrine, but there was no appearance in either case of tubercular deposit. The intestines were adherent to one another, and to the abdominal parietes in the umbilical and left lumbar regions. The remainder of the abdominal cavity was filled with a puriform fluid, mixed with liquid yellow fæces and with gas, and its parieties were lined by a layer of soft flocculent lymph. The parietal peritoneum beneath this was found to present older and firmer fibrinous exudations, and in many places tubercular deposits, either in the form of nodules or as laminæ of variable extent, formed apparently by the confluence of contiguous nodules. On separating the small intestines from one another, their surface and that of the mesentery and the adhesions themselves, were found to be studded with tubercles, varying from mere points to the size of a pea; they were somewhat firm, and of an opaque yellowish colour, more or less streaked with black. They were most abundant at the line where the mesentery joins the intestine. There was no deposit in the mesenteric glands, and no ulcers or other affection of the mucous membrane of the bowels, except near the centre of the ileum, where was a roundish perforation about half an inch in diameter, probably, but not certainly, produced by an ulcer, beginning on the mucous surface. The Fallopian tubes were distended to a considerable size, by a copious deposit of soft yellow tubercle, most abundant in the outer two-thirds. The mucous membrane of the uterus was soft but not tuberculous. Microscopically, the deposit in the peritoneum presented a large number of irregular interlacing granular fibres mixed with granular matter, but scarcely a trace of a cell or nucleus. That in the Fallopian tubes consisted of what appeared to be broken down cells, or rather nuclei, mixed with molecular matter. The above case is a counterpart of one exhibited by Dr. Bristowe during the last session, and which was reported on by Drs. West and Brinton.

CASE OF ULCERATION OF THE FIBROUS LAMINÆ OF THE MEMBRANA TYMPANI.

[With preparations by Mr. Toynbee.]

R. F., aged between 80 and 90, formerly a sailor, was so deaf that he required to be spoken to in a loud voice close to the left ear. The right ear was in a worse state than the left, but it was not wholly useless. Upon examination of the right ear, the membrana tympani was observed to be very concave externally, and appeared as if it had fallen in towards the promontory. At its superior and posterior part the membrana tympani had been withdrawn from the bone to which it had been attached, had passed inwards towards the promontory, and left exposed in the external

meatus the bone which had formerly been a part of the tympanic cavity. The membrana tympani was white like cartilage; the former position of the malleus was indicated by a vertical white ridge, anterior and posterior to which was a depression about a line in diameter, the anterior being the deeper. In the left ear the membrana tympani was not so thick or concave.

Many years previous, perhaps thirty or forty, this patient fell overboard into the sea, but did not remain very long in the water. This accident was followed by a discharge from each ear, accompanied by dulness of hearing, which increased so much that in two or three months he became as deaf as at the time of my seeing him. The deafness was not affected by a cold or any accidental circumstances.

The appearances on dissection were as follow:— Right ear: The dermoid layer of the membrana tympani appears to have been wholly destroyed by ulceration; portions of the fibrous laminæ have also been removed, and the remaining parts are very thick and white. The inner surface of the membrana tympani is attached to the inner wall of the tympanum; the malleus has been drawn upwards and backwards, and it is anchylosed to the upper wall of the tympanum. The investing membrane of the tympanum is very thick, and it occupies nearly all the space that is not filled by the membrana tympani. The base of the stapes is not so movable as natural. The left ear is in much the same state as the right, excepting that the membrana tympani is not so thick; the malleus is not anchylosed, and the stapes is more movable.

Mr. Toynbee remarked, that ulceration of the fibrous laminæ was not unfrequently the effect of the application of cold water to the outer surface of the organ. It seemed to result from the inflammation of the dermoid layer, which speedily terminated in ulceration, not only of its own substance, but also of the fibrous laminæ. In some cases, the entire substance of each membrana tympani was destroyed in the course of a few days, and this process was unaccompanied by pain of any importance. Another cause of ulceration of the fibrous laminæ was chronic catarrhal inflammation of the dermoid layer. Among the results of this affection might be named anchylosis of the stapes to the fenestra ovalis, calcareous degeneration of the membrana tympani, caries of the upper wall of the meatus externus, and contraction of the canalis caroticus.

Specimens exhibiting these various conditions were handed round.

Dr. Lionel Beale presented a drawing representing

THE MICROSCOPICAL CHARACTERS OF THE FLUID TAKEN FROM A CYST IN THE KIDNEY.

As in a specimen brought before the Society at the last meeting by Dr. Bence Jones, this fluid contained many crystalline plates of cholesterine. The kidney which contained the cyst, was taken from an intemperate man, who died in King's College Hospital in February, 1849, of pneumonia. Each kidney contained a cyst about the size of a small walnut, and in corresponding situations. Besides plates of cholesterine, the fluid contained epithelium from the lining membrane of the cyst, and some free oil globules. The kidneys were much congested, and were contracted in size; the surface was smooth, and the capsule adherent. Upon microscopical examination, the tubes were found to be dilated in the meshes of the matrix, and, upon a section being made, numerous small white masses were observed by the unaided eye, which also appeared, upon microscopical examination, to consist of dilated tubes (or cysts?)

Mr. Gay exhibited a specimen of expansion of the distal phalanx of the great toe, taken from a healthy-looking young man, aged 25. Three years ago he met with a severe bruise of the great toe. Six months afterwards the nail came away, but was replaced by another, which, from its causing ulceration at the sides of the toe, was obliged to be removed. No perfect reproduction of nail took place, but its site was occupied by an unhealthy-looking sore, which discharged pus and resisted all attempts to heal it. While this was going on the last phalanx became enlarged and distressingly painful, especially at night, so that the patient earnestly entreated its removal, to which Mr. Gay consented. The preparation shows considerable expansion of the phalanx in thickness, not in length, and general thickening of the periosteum, especially at its extremity; a deposit of bone in this part of the periosteum, which obviously commenced in the centre of this tissue and extended towards the circumference. At the central part of the extremity of the phalanx the new bone has become consolidated with the phalanx, while at the circumference of the base of the new bone periosteum still exists between it and the phalanx. This part of the preparation illustrated the mode in which the well-known exostoses of this particular phalanx are developed, and supported the views brought forward by Mr. W. Adams in reference to the enlargement of the articular ends of the bones in consequence of rheumatic arthritis. The ulceration was limited to the site of the nail, and illustrated that form of ulcer which was often found in the vicinity of thickened periosteum, and arose, in all probability, from the derivation of blood from the superficial parts by the chronic disease going on in that membrane. In some parts the nail matrix had been removed, leaving an unhealthy sore, of which the periosteum formed the base. At the sides the matrix remained in fragments, and diseased portions were in the act of being shed, while others were more firmly attached, and seemed to be making abortive attempts to renew the nail. The matter secreted for this purpose had the appearance of ragged fibrous or cartilaginous tissue, but to the microscope displayed little else than condensed epithelia.

NEWCASTLE AND GATESHEAD PATHOLOGICAL SOCIETY.

Mr. George Heath exhibited

THE SAC OF A LARGE ANEURISM ARISING FROM THE LEFT SUBCLAVIAN ARTERY.

He said that he had removed it from the body of a fitter, named Liddel, belonging to Gosforth Colliery, who had been the subject of the disease about eighteen months. In June, 1851, Liddel was a patient in Newcastle Infirmary, and it was then proposed to tie the artery in the first part of its course; he, however, refused to submit to this operation. He soon after left the infirmary, and, in August, 1851, came under his (Mr. Heath's) care. At this time, the sac, originating in the third part of the subclavian artery, formed a visible pulsating tumour above the clavicle, four inches long by two broad, and reached to within an inch of the sterno-clavicular articulation. It also dipped down behind the clavicle, so that its pulsation could be felt by the finger pressed firmly below that bone. The pain felt by the patient in the region of the scapula rendered it probable that the sac extended also towards its anterior surface. These deep relations of the sac rendered it difficult to form a precise notion of its dimensions, and obscured also the diagnosis of the disease; so that, by more than one person, the aorta was supposed to be its source rather than the subclavian. The real seat of the enlargement was, however, sufficiently indicated by the history of the case pointing out the part where swelling first appeared, by the stroke-sound over the chest becoming clearer as it descended from the clavicle towards the aortic region, instead of duller, as would have been the case had the sac sprung from the aorta, and by the absence of any aneurismal murmur over the aortic region. The chief point to which he (Mr. Heath) wished to direct the attention of the Society was the mode of treatment employed in this case, which he believed was a novel one in this country, although it had been more than once employed in France and Italy. To ligation of the artery the patient absolutely refused to submit. Mr. Heath, therefore, resolved to make trial of galvano-puncture, which, in some cases of smaller aneurism, had been found successful. Accordingly, the necessary apparatus having been procured, four long steel needles (a) were thrust into the sac in pairs, about one inch and a half distant. The points of the needles forming each pair were not held in contact, and were so placed, with regard to the course of the artery, that the galvanic current would traverse the stream of blood at right angles. At the first application, which necessarily was in some degree an experimental one, but little effect was produced; the patient did not suffer much pain, and no change was produced in the tumour. The battery consisted merely of two large cells, and no attempt was made to control the circulation through the artery. The battery, on this occasion, was used a quarter of an hour. From the great depth at which the first part of the left subclavian is placed, and from the bulk of the muscular substance covering it, great difficulty must always be experienced in retarding the circulation through it. On the second application of the galvanism, however, an attempt was made to effect this object by means of a screw apparatus and conical pad pressing over the sterno-clavicular articulation in a direction backwards and slightly downwards, while a second apparatus was applied over the artery immediately below the clavicle. The compressing apparatus could not safely be brought nearer the aneurism. By these means the circulation through the aneurismal sac was markedly modified, but its pulsation was not stopped. Three pairs of needles were now introduced fairly down into the sac, in the same manner as on the former occasion, and connected with the battery, reinforced by a third cell, by means of silver threads

(a) Those used by straw-bonnet makers answer best.

passed through the eyes of the needles. The effect of the galvanism thus applied was striking and very remarkable. Considerable pain was excited in a few minutes; spasmodic action of the muscles of the shoulder, and slight twitchings of the left arm followed; in six or seven minutes the aneurismal swelling began to diminish, and in fifteen that part of it which had occupied the supra-clavicular hollow had entirely disappeared, leaving the part as natural in appearance as on the sound side. The galvanic action was continued for twenty minutes altogether. The supra-clavicular space remained free from swelling at its cessation, but pulsation could be detected in the site of the disease. The needles still remained in the sac; the result of their removal was almost as curious as the previous effects of the galvanism. As though the contraction of the sac depended on the presence of the needles, as each one was withdrawn the portion of swelling immediately around its position rose up, so that when the whole six were withdrawn the swelling in the supra-clavicular region had nearly regained its original size. It did remain, however, somewhat smaller, but the pulsation continued. At the end of a fortnight the part remained in the same state, but the patient considered himself much easier. On account of absence from home, Mr. Heath did not see this patient during the following six weeks. At the termination of that period the aneurism had enlarged in every direction. Galvanism was not again employed; the large size of the sac rendering the coagulation of its contents a very doubtful matter, whilst the previous trial, although it showed a very remarkable effect of the electricity in the contraction of the sac, was not encouraging in its ultimate result. The disease continued to increase, and in December the patient died exhausted and without rupture of the sac. By examination of the parts, the Society would perceive the large size of the aneurism which had rested behind upon the anterior surface of the scapula, and protruded through the ribs in front, occupying the whole of the supra-clavicular space, and reaching down into the chest below the fourth rib. The opening from the artery which lay over the sac would be seen to be very small. Mr. Heath considered, that although in this case the cure of the disease was not effected by the galvanism, yet that its effects had been sufficiently curious to excite our attention and interest, and to render the subject worth pursuing. It seemed probable that this agent would be a useful auxiliary in the treatment of smaller aneurisms, where ligature was impossible or unadvisable. Further observations, however, were necessary, and at some future period he hoped to have an opportunity of going more at length into the subject.

MEDICAL NEWS.

The Hunterian Oration.—The address annually delivered at the Royal College of Surgeons, in commemoration of John Hunter, will be delivered as usual on the 14th of February, and it is fully expected that the new and far more commodious theatre will be ready for that purpose by the specified time. Mr. Bransby Cooper will be the orator.

Royal College of Surgeons.—There is no truth in the report going the round of our medical and other contemporaries, stating that the extensive alterations going on at this Institution will have the effect of increasing the size of the library; that portion of the establishment will not be interfered with. The new museum will be about double the size of the present, and a new and most convenient theatre is nearly ready for the delivery of the lectures, orations, etc.; and an additional theatre for the microscopic demonstrations is also building.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, December 30, 1852:—

Hawke, Charles John, Port Phillip, Australia.
Harris, Wm. Henry, Hon. East India Company's Service.
Willis, S. A., Florence-court, County Fermanagh, Ireland.

APPOINTMENTS.

Civil.—Dr. Wake, of Southwold, Suffolk, has received the appointment of "High-Steward of the borough, town, manor, and lordship of Southwold, in Suffolk." Dr. Wake has for many years exercised the magisterial functions in the above town, and has lately retired from practice, having been actively engaged in the exercise of his profession for about thirty years.

Naval.—Surgeon John Sloan, M.D. (1838), to the Ajax, 58, screw steam flag ship at Cork. Assistant-Surgeons.—Daniel I. Duigan (1844), to the Desperate steam sloop at Devonport; W. J. Baird (acting), to the Impregnable flag ship at Devonport. Assistant-Surgeon Thomas B. Forster (1847), serving in the Dædalus, 20, on the Pacific station, to the Rattlesnake. Assistant-Surgeon Frederick L. Leonard (1852), to the Ajax screw steam flag ship at Cork.

Military.—1st Dragoons: Assistant-Surgeon John Gorringe, M.D., from 59th Foot, to be assistant-surgeon, vice Orr, who exchanges. Scots Fusilier Guards: Assistant-Surgeon Frederick Robinson, M.D., from 74th Foot, to be assistant-surgeon, vice Bowling, who retires. 59th Foot: Assistant-Surgeon William J. A. Orr, from 1st Dragoons, to be assistant-surgeon, vice Gorringe, who exchanges.

Militia.—Royal Sussex: Allen Duke, gent., to be surgeon. King's Own: Benjamin Clarke, gent., to be assistant-surgeon.

DEATH.

Leese.—Dec. 2, at Ryde, Isle of Wight, John Vaux Leese, Esq., late of Blackheath, Kent, and formerly of the Bengal Medical Service.

Case of Kirwan.—The sentence of death passed on William Burke Kirwan, for the murder of his wife, on the Island of Ireland's Eye, near Dublin, on the 6th September last, has been changed to transportation for life. The prisoner is about to be transferred to the convict depôt at Spike Island, Cove of Cork. His immediate removal has, however, been delayed, in consequence of a medical certificate, which states that his health will not admit of it at present.

Parisian Medical Society.—The election of office-bearers for the ensuing year took place on the 18th and 24th days of December, when the following gentlemen were elected:—President: George Harley, M.D.; Vice-President: William O. Priestley, M.R.C.S.; Treasurer: John S. Sanderson, M.D.; Hon. Secretary: Robert Bowman, M.D.; Council: Charles Murchison, M.D.; James Barnston, M.D.; John S. Erskine, M.D.; A. T. Jones, Esq.; Thomas Wheatley, M.R.C.S. The Society, from the increasing number of members, has been obliged to remove to more commodious rooms in Rue Monsieur le Prince, No. 44; and at the beginning of this, its sixteenth session, is in a most flourishing condition.

Berlin Medical Society.—Mr. John Bishop, F.R.S., Consulting Surgeon to the Northern Dispensary, and Mr. John Gay, Surgeon to the Royal Free Hospital, have just been elected Corresponding Fellows of the Prussian Medical Society.

Mortality Notabilia.—In the week that ended last Saturday 1308 deaths were registered in London. In the ten corresponding weeks of the years 1843—1852, the average number was 1218, which, with a correction for increase of population, becomes 1340. The deaths returned for last week differ little, therefore, from the estimated amount. At the end of a quarter, as has been shown on former occasions, the weekly account is swelled by more than the just proportion of Coroners' cases, a number of which occurred at prior dates, but were not formally registered till last week. These consist principally of deaths by poison, burns and scalds, hanging and suffocation, drowning, fractures, and wounds; and in this class 155 cases are enumerated in the present return. Sudden deaths, also, comprising cases in which persons have been "found dead," where coroners' juries have been unable to ascertain the cause of death, or where it has been improperly omitted to be recorded, amount this week to 43. There was an increase last week in the mortality both of epidemic diseases and of diseases of the respiratory organs. In the sub-district of Hackney-road, at 1, Hepworth-place, on 22nd December, the daughter of a cordwainer, aged 2 years, died of "typhus." (Inquest.) Mr. Murray, the registrar, says:—"This is the third death from typhus in the same house, originating in putrid wood taken from a cess-pool and piled against the house, but now removed. A fourth occurred from peritonitis in an adjoining house, across a narrow court; and a fifth child is ill with typhus, but, with the rest of the family, it has been removed by order of the Coroner, at the request of the jury." Mr. Faulkner, registrar of the south sub-district, St. Giles, makes the following statement:—"I went, on the 18th December, to 2, Lincoln-court, to register a birth. On opening the door of the room, I was quite overpowered by the fearfully sickening and disgusting odour, which surpassed anything I have experienced, although this sort of thing is too frequent. I was obliged to leave the room, and register on an open window-sill. If cholera makes its appearance, it will be undoubtedly in that room, for it is utterly impossible for human beings to live in such an atmosphere, as I felt the ill effects of it for the whole day. I believe whitewashing, combined with a powerful deodoriser, would be of great service here."

DEATHS *in the Metropolis for the week ending Saturday, January* 1, 1853.

Causes of Death.	Jan. 1. 0	15	60	All Ages.	Sum of Ten Weeks.
All Causes	568	470	268	1308	12176
Specified Causes	565	467	266	1300	12115
1. Zymotic (or Epidemic, Endemic, and Contagious) Diseases	180	39	8	228	2420
Sporadic Diseases:					
2. Dropsy, Cancer, and other Diseases of uncertain or variable seat ...	7	32	27	66	512
3. Tubercular Diseases	48	131	10	189	1815
4. Diseases of the Brain, Spinal Marrow, Nerves, and Senses ...	77	40	53	170	1107
5. Diseases of the Heart and Blood-vessels	3	45	17	65	460
6. Diseases of the Lungs and of the other Organs of Respiration ...	109	43	39	191	2499
7. Diseases of the Stomach, Liver, and other Organs of Digestion...	17	23	18	58	642
8. Diseases of the Kidneys, etc. ...	1	9	6	16	105
9. Childbirth, Diseases of the Uterus	...	4	2	6	101
10. Rheumatism, Diseases of the Bones, Joints, etc.	3	4	2	9	90
11. Diseases of the Skin, Cellular Tissue, etc.	1	...	1	2	20
12. Malformations	4	...	...	4	31
13. Premature Birth and Debility ...	30	1	...	31	269
14. Atrophy	19	1	1	21	173
15. Age	...	...	46	46	691
16. Sudden	16	14	13	43	232
17. Violence, Privation, Cold, and Intemperance	50	81	23	155	618
Causes not Specified	3	3	2	8	61

BOOKS RECEIVED.

Braithwaite's Retrospect. Vol. XXVI.

Half-Yearly Abstract of the Medical Sciences. By Drs. Ranking and Radcliffe. Vol. XVI.

TO CORRESPONDENTS.

The first article upon "Drugs, their Impurities and Adulterations," is unavoidably postponed until next week.

A Subscriber since the year 1839, who sends his name, thinks that the Medical Reform proposed by the Provincial Association is a one-sided measure, and altogether unfavourable to the general practitioner. He asks, therefore, that the apprenticeship system should be retained, in order to keep out a large class of persons who, having tried and been tired of other pursuits, would flock into the profession if this barrier were withdrawn. He also suggests that if a registration fee is to be paid, an authorised list of qualified practitioners should be sent gratis to the Profession. Our Correspondent concludes by confessing himself unfashionable enough to feel grateful to the Apothecaries' Society for the good they have already done.

[To the Editor of the Medical Times and Gazette.]

Sir,—In reference to the "*erratum*" suggested by Mr. Walter, of Dover, and inserted among your Notices to Correspondents last week, I have to say that there was no misprint, and that *one minim* of the sulphuric acid of commerce was the quantity given, and not one drachm of the diluted sulphuric acid of the London Pharmacopœia, as he seems to suppose. With the latter part of Mr. Walter's communication I most fully coincide, having myself found the sulphuric acid to act with equal efficacy, whether any spirit has been taken or not.

I am, &c.

Plymouth. William Braithwaite.

Chirurgus.—Mr. Skey has been appointed as the successor of Mr. Paget to the Royal College of Surgeons. The commencement of the lectures will be duly advertised.

Mr. Backol will find preparations of kidneys containing acephalocyst hydatids in their interior in almost every pathological museum. These entozoa are found very frequently in the renal organs of the sheep.

An Impatient Reader.—According to the German papers, Humboldt has not only completed the fourth volume of his "Cosmos," but his manuscript has been in the hands of the printers for some few weeks.

H. W. C.—We believe the statement is correct that a Chair of Zoology, in relation to the practical purposes of agriculture and manufactures, has been created in the *Conservatoire Nationale des Arts et Métiers* of Paris, and that M. Baudement, formerly a Professor in the recently suppressed *Institut Agronomique*, has been appointed to fill it.

Dr. M.—The term Iodognosis (from ἰώδης and γνῶσις) was first introduced by M. Dorvault on publishing a series of researches on the chemical, therapeutical, and medical properties of iodine. The name is employed as embracing an entire knowledge of all the properties of that substance.

Studens.—Remember the old proverb, "when a thing is well begun, it is half done."

A Fellow of the Royal College of Physicians.—It is doubtless advisable that there should be one uniform scale of charges for consulting practitioners called into the country. A few physicians and surgeons still adhere to the old rule of a guinea a mile; but there are many who consider themselves sufficiently remunerated by a fee of two guineas for every three miles, or even by half a guinea a mile. We think the former of these last two demands fair and reasonable: much, however, must depend upon the peculiar circumstances of each case.

Who's Who in the Medical Profession? must distinguish between German degrees procured by purchase, and those obtained after an examination The former confer no credit upon those who hold them; the latter are really signs of merit. The tests at some German universities are very searching; we believe they are so at Berlin.

[To the Editor of the Medical Times and Gazette.]

Sir,—In reply to the query of H. H. W. G., Horselydown, as to whether the anæsthetic properties of bisulphuret of carbon were known, which appeared in the last Number of the "Medical Times and Gazette," I beg to state that, in the spring of 1848, when Professor Simpson, of Edinburgh, was experimenting on various substances as anæsthetics, as being cheaper than chloroform, he likewise tried the bisulphuret of carbon; and from what I saw and experienced in my own case, I would neither recommend nor use it myself. I think it chiefly objectionable on three heads:—

1st. The unpleasant smell. This, however, as your Correspondent states, is soon overcome.

2nd. The effects produced. These, in most instances in which it was used, instead of being calmative, had quite an opposite effect. One instance in particular I well remember, where a sturdy son of the Sister Island actually required four or five people to restrain him.

3rd. The unpleasant after-effects; in most instances, there were pain and fullness in the head, as well as a sense of fulness in the chest, these unpleasant feelings continuing from six to thirty-six hours, in my own case they continued thirty hours. It may perhaps be said, chloroform might produce the same effect; but this was not the case, as in all these instances, and in my own in particular, having taken chloroform many times, neither at the time nor afterwards were there any unpleasant feelings. I should think, however, the bisulphuret, being much cheaper than chloroform, might, with great advantage, be introduced into veterinary practice, where the quantity used is somewhat considerable.

I am, etc. James Munro, M.D.

Moffat, Dumfriesshire.

Dr. Rowe, Cavendish-square.—We can assure Dr. Rowe that we *never* doubted for an instant that his book on nervous diseases had passed into a 13th edition, and never penned a sentence bearing such an interpretation.

J. Lawson.—Unfortunately the laws against quacks are by no means stringent, and although most of the impostors who prey upon the public under the pretence of curing nervous and other diseases are greater scoundrels than many of those who are daily brought to justice at the Old Bailey, still the law of England almost fails to touch them. We think, in your case, however, that you could proceed against the pretended doctor in the County Court.

Dr. Roe, Princes-square, Plymouth.—Many thanks for the newspaper containing the quotation from our pages. We of course think the article in question cannot be too widely circulated.

Critic.—See our Leading Article on the subject. Your views have been anticipated.

Chemicus.—Dr. Hofmann's Lectures will be published in this journal as they are delivered. We expect to give the first lecture about the end of the month.

Dr. Herbert Barker.—A private communication has been sent.

Inquirer.—The word "cosmos" signifies order or arrangement; as used by Humboldt it means the whole system of the universe.

Mr. Stephens.—No. 2 of the *Psychological Journal* has long been out of print. The expense of re-publishing it is too great to be rashly determined upon.

A Correspondent is unable to procure the *Medical Times and Gazette* for January 10, 17, 24, 31, and February 7, 1852. Have any of our subscribers these numbers to spare?

A Surgeon, Nottingham.—There are numerous lying-in hospitals in London. There is the General Lying-in Hospital, York-road, Lambeth; the Royal Adelaide, in Queen-street, Golden-square; the Queen Charlotte's in the New-road, near Paddington; the City of London, at the corner of the Old street-road, City-road; and another in Endell-street, Bloomsbury. We believe that patients are only admitted by letters from subscribers.

T. R.—The report has already attracted the Editor's attention.

K. C. L.—If the duties referred to are *constantly* imposed, you have, no doubt, great reason to complain.

Erratum.—In our last week's report of the Medical Society, page 23, 1st col., 7th line from top, for "Dr. *Ballard*" read "Dr. *Valli*."

COMMUNICATIONS have been received from—

Dr. Rigby; Mr. Fergusson, King's College; James Allen, Esq., York; Dr. Fuller, St. George's Hospital; Dr. Bowman, Paris; Dr. Ramsbotham, Portman square, and the London Hospital; Henry Thompson, Esq., Wimpole street, Cavendish-square; M.D.; Perry Dicken, Esq., Ashby-de-la-Zouch; Dr. Roe, Plymouth; Wm. Braithwaite, Esq., Plymouth; T. F. Grimsdale, Esq., Liverpool; W. C. Dendy, Esq.: Dr. Stephen Moriarity, M.D., Dieppe; Dr. Herbert Barker, Bedford; Thomas Wigglesworth, Colford; William Stedman, Esq., Havant; Mr. Henry Gramshaw, Tettenhall, near Worcester; W. Pearce, Esq., Doncaster.

ORIGINAL LECTURES.

CLINICAL LECTURE
ON
EXCISION OF THE ELBOW-JOINT.

DELIVERED AT

King's College Hospital.

By WILLIAM FERGUSSON, Esq., F.R.S.

Professor of Surgery in King's College, London, and Surgeon to King's College Hospital, etc.

Gentlemen,—During the last few months we have had under treatment in the hospital several very interesting cases of disease of the joints, wherein we have been attempting to save the limbs by performing the operation of excision or resection of the extremities of the bones constituting the articulations. I need hardly tell the youngest pupil among you, that the terms excision and resection of joints have only been of late years familiarly known to the surgeon; for, indeed, among the older surgeons, the treatment of diseased bone and joints was restricted to two methods alone, viz.,—the employment of local applications, when it was deemed that the morbid conditions might be changed or cured; and, if these failed, amputation of the extremity in which the disease was situated. There was at this time no medium between the two; if the condition of the bone or joint affected was incurable, or deemed incurable, the whole or greater portion of the limb was at once removed by means of the amputating knife; and, of course, not unfrequently the life of the patient was sacrificed at the same time. But, fortunately for the subjects of these maladies, as well as for the sake of our science, great advances have been made in the surgery of diseased bone and joints. Surgeons do not any longer resort indiscriminately to amputation—at least many of them do not—but find that they are enabled, by removing the diseased parts by a limited operation, to save both the life and the limb of their patient.

These observations apply to a great many operations hardly known to our predecessors; they apply to necrosis as well as to diseased joints, both instances in which amputation was formerly practised. But, in my present lecture, I shall confine my remarks exclusively to the operation of excision or resection, as applied in cases of diseased joints. I have little doubt that there will be many additional opportunities for your attention being called to this department of surgery during the session; but, as there has been of late a number of cases collected together in which resection had been done, it will be advantageous to draw your especial attention to this subject at this period. And, at the outset, I must beg of you to bear in mind that, as students of surgery and future practitioners, you cannot over-estimate the importance of this subject: indeed I do not think that I, as your teacher, or that any teacher in surgery, can bring it too often before your minds, for, in my humble opinion, these operations constitute as nearly as possible the perfection of surgery.

Now, you know it is generally considered that amputation is the opprobrium of surgery; this term is constantly applied to it in a thoughtless and careless manner; but I think that this expression should not be used in connexion with amputation or any other surgical procedure, for by doing so we give as it were to surgery the capability of curing all diseases. But there is no other department in social life in which man and his resources are considered infallible; and we all tacitly allow that surgery and surgeons cannot control or cure all diseases. It therefore appears to me to be absurd to blame our art because it sometimes—and that not unfrequently—fails us. While I hold these views, I feel equally bound to confess, that I do not consider surgery is come to that condition that we can go so far and no further. No surgeon should say this, otherwise he will retrograde instead of advance in knowledge. The most accomplished surgeon should endeavour to improve his resources, however well he may wield them; for indeed it will be found, that the best surgeon is the least satisfied with the amount of knowledge he possesses; that which he is already master of does not blind him to his ignorance. I have generally found that young men of two or three and twenty consider themselves most perfect surgeons; and I am speaking now of gentlemen who have really and truly studied their profession with all the ardour they can; but if they still continue with the same energetic purpose, they find in the course of five or six years more that they are not such masters as they supposed themselves to be, and that, in fact, they are ignorant of a great deal; and as they get on, they see the necessity of not neglecting any means of improvement, if it is their wish and determination to practise surgery with credit and success. Well, it is in consequence of this wholesome spirit having existed, that surgeons of the present age have seen the propriety of making some advancement in the treatment of diseased joints. Some of them thought that it was unnecessary to remove the whole member for the purpose of curing a diseased joint, and it began to be considered that it was safest and best to remove as small a portion of the body as possible by an operation, when it was soon shown that joints alone might be excised, and yet the whole limb be saved.

I have made these preliminary observations for the purpose of impressing upon you the great advantage of what has been so appropriately termed conservative surgery—surgery which saves by destroying as little as possible, which enables the practitioner to get rid of disease with the smallest amount of mutilation, and—as hitherto known—with the perfection of surgical practice,—I say hitherto, because as yet we do not possess the means of curing certain conditions of disease of the joints. If we did, I would then willingly admit that we had gone a step further, and acquired a power superior to resection.

Although in my opinion no one can conscientiously say that they can cure a diseased bone or joint, there are some who boast that they can do so; and they are justified—in their own sight, at least—in saying so, because some instances are met with every now and then where the most formidable kinds of disease of these textures are in common language cured. Certain remedies have been given, and, in the course of time, a favourable change has taken place when there appeared to be no hope; but the surgeon must not too hastily attribute the cure to these remedies. In most of these cases Nature has done the work; the morbid actions, in the course of time, and under favourable circumstances, have been arrested; and thus a cure is said to have been made. It is more proper, however, in speaking of such cases, to say that the part has got well, than that the surgeon has cured it.

I think, therefore, that we should be careful in the language we adopt in reference to this subject. Admitting, as I do most frankly, that I have seen instances where bad joints have got well,—as where all the bones of the wrist-joint were grating on each other,—nevertheless, in the majority of such cases there will, in the end, be the necessity for active interference on the part of the surgeon. It then becomes a question what is to be done; whether he can remove the disease by an operation purely local, or whether it will be necessary, for the sake of the patient, to take away the entire member by amputation.

You must take it for granted, that, prior to this question arising, all those remedies which are found useful in diseased joints have been employed by the surgeon, that the affection is getting worse, and that unless something decided is done the patient may be destroyed, or at least may possess a limb entirely useless to him. The cases which I shall now bring before your notice were under these circumstances. The first is that of Mary Brown, aged 41, who was admitted in the spring of this year, with what I may truly term incurable disease of the left elbow-joint. The disease had been in existence for seven years, and had run through its course of inflammation, suppuration, destruction of cartilage, and probably partial anchylosis. However, a few weeks before her admission, fresh disease set up in the joint with great severity, and increased so much, that the part got into a very bad condition, and the health of the woman was very much broken up. Various remedies were tried, but the patient rapidly got worse, and at the expiration of seven weeks from her admission it was deemed necessary to perform some operation.

The question here was, Should amputation of the arm be performed, or should excision of the joint be had recourse to? I believe it was a case where many surgeons would have performed amputation of the upper arm, because I am aware

that it is done in cases even of disease of the elbow-joint in young persons; but here the patient was beyond that age at which it is customary to put this proceeding in force. It is considered that excisions are not so likely to be attended with success in persons of mature age, and in elderly people, as in those more youthful. However, taking all things into consideration, I thought it better to perform excision of the elbow-joint, and I accordingly did this, May 29th, in the ordinary manner; the ends of the bones were in a much diseased condition. The circumstances were very unfavourable here, and I am aware that remarks were made by some persons at the time, to the effect that the operation of excision was extraordinary treatment. These were not intended for my ears, but nevertheless they did reach them. I do not wonder at remarks of this nature coming from individuals who know little or nothing about excision of joints. Those who are familiar with the nature of these operations, and who in reality understand this branch of surgery, do not indulge in depreciatory observations, or, at all events, if they do, they keep them to themselves.

Well, time has proved the correctness of the decision come to in reference to this case; for, although the convalescence was tedious, and great care was required in dressing the wound, the patient progressed most favourably, and we had an opportunity the other day of seeing how well the case has turned out, and what good position the arm is in. The parts were kept, after the operation, in such a position that, should anchylosis occur, there would be a right angle at the elbow. It was not thought likely that a good false joint could be formed here at the patient's advanced age, and therefore there was not any motion allowed: nevertheless, there is now a false joint, and she has now a tolerable use of her fore-arm and hand. Altogether the case may be looked upon as creditable to surgery, and as a good illustration of that which is so aptly termed Conservative Surgery.

The next case is also one of diseased elbow-joint. The name of the patient is Anne Gough, a woman aged 30, who was admitted about a fortnight since into the Victoria Ward. She had been suffering from a disease of the right elbow-joint for two years, which had been treated by various methods, but benefit had not accrued. When she was admitted, the appearance of the joint was just such as is observed in cases where there is very serious disease, although there was not any sinus or fistula. It might have appeared to those who saw it, that there was not so much disease here as in the other case, where there were several sinuses; but I felt certain that the morbid condition was very great. I therefore excised the ends of the bones on November 27th, and here (showing the excised parts) you see them. You can hardly recognise the ends of the radius or ulna, and the lower extremity of the humerus is in a very diseased state. This patient has been doing very well indeed, and, as she is so much younger than the other, I shall by and by permit some gradual motion, in order that a false joint may be formed.

The next and last case in which the operation of excision of the elbow-joint has been performed is one of so interesting a character that I must detail it at somewhat greater length to you. The principal features of the case are detailed in the books as follow:—

"George Gaskin, aged 31, a sailor, was admitted into the Albert Ward at the end of September, with a distorted condition of the left elbow. It appears that while at sea, on the coast of South America, some seven years back, he fell from the rigging of his vessel, and injured his elbow. According to his own account, it was at that time dislocated. Unfortunately for him, there was not any surgeon on board of his ship, and it was not until after some days that he had any professional advice. He then saw a surgeon, who told him that he had merely sprained his arm, and that an embrocation would put it all right.

"After his return to England he went first to St. Bartholomew's Hospital, where attempts were made to put the joint into a more useful position, but they were not attended with any success. The forearm was now nearly on a line with the upper arm, and of course it was very inconvenient to him. He now consulted a quack surgeon in the north of England, who tried by various manipulations to remedy the distorted state of the limb by using powerful flexion, and he succeeded in altering its position; but with this state of things the patient became dissatisfied, and allowed the limb to be violently extended. By these means combined, a certain amount of improvement was brought about. Some time after this he again submitted himself to some more severe manipulations, which ended in producing a fracture of one of the bones of the forearm.

"Sometime afterwards he applied to a surgeon in his native county, who tried hard for a long time to alter the position of the limb, but he did not affect any melioration. The patient subsequently again came to London, and placed himself under the care of one of the surgeons at Guy's Hospital. This gentleman made an attempt to get the arm out of its extended position by cutting across the triceps, and afterwards placing the limb in a certain position, but no good was done by this measure.

"The man then left this institution and entered the Royal Free Hospital, where various incisions were made about the joint and the flexor tendons were divided. However the arm remained in the same position. He was afterwards admitted into King's College Hospital.

"The forearm was nearly in a line with the upper arm, and the elbow-joint presented the appearance as though some of the bones had been knocked out of place. The olecranon process was very prominent, and the ulna and humerus were perfectly anchylosed, but the radius was movable on the humerus; there also appeared to be great thickening of the bones. The limb was totally useless to the man from the unfortunate position in which it was retained, and he was willing to undergo any mode of treatment which would promise to bring it into better adaptation for use. Mr. Fergusson, therefore, determined to excise the joint, and afterwards to place the forearm at right angles with the arm, and keep it in that position. Accordingly, on October 9, the patient was placed under the influence of chloroform, and the ordinary incisions in excising the elbow-joint were made, and the ends of the bones were cut out. There was great difficulty in the operation in consequence of the enormous thickening of the extremities of the bones. The arm was placed in a flexed position."

Now, you saw that this man's arm was in such a position before the operation that it could not be of any use to him whatever; and there was, moreover, extensive exudation of new bone, the result of injury or disease. The joint had been cut into by other surgeons, incisions had been made, and tendons had been divided without any definite object, or without doing any good, and, indeed, it could not be expected that these measures would do any good. When he appeared here it struck me, that if I were to excise the extremities of the bones, it might have the effect of permitting us to place the limb in a position in which it might be of some use to him. Well, after I had done the operation, I took care to order, that in a short time a little motion might be encouraged in order to bring about a false articulation, and you now see the result. The arm is in capital position, the wounds have healed up, and there is a limited motion in the joint. He certainly does not move the joint so freely as I could have wished, because there is a deal of thickening about it, but you saw how enormously the ends of the bones were enlarged when I took them away, and this may possibly account for there being less motion than we usually see in instances of false joint after resection here.

I have not heretofore had an opportunity of doing an operation of this nature with the same purpose in view before, and, in this instance, I was led to adopt this mode of proceeding from what I saw some few months ago whilst I was in Edinburgh. There was a case of anchylosed elbow-joint in the Royal Infirmary there, under the care of my friend Dr. Richard Mackenzie, and it was proposed, in that case, to extirpate the joint. In the course of a week or two afterwards I found that Dr. Mackenzie had performed this operation with the very best results; and I believe that there are many cases in which a similar mode of treatment might be adopted with equal advantage. I must, however, state to you, that in America operations of this nature have been performed, for Dr. Barton, of Philadelphia, has in more than one instance cut through bones near joints which have been anchylosed in a bad position; and, in one instance, that of a sailor, where anchylosis of the hip had taken place, and had rendered the limb useless, the femur was cut through with a favourable result.

My time will not allow me at present to refer at any greater length to this important subject; but I shall take another opportunity of drawing your attention to a case which has excited great interest among us all. I allude to the instance where I performed excision of the knee-joint, an operation which you know has been so rarely performed that its merits and expediency are as yet only *sub judice*.

ORIGINAL COMMUNICATIONS.

REMARKABLE LOSS OF ALL THE TEETH IN THE UPPER JAW.

By THOMAS INMAN, M.D.

Mr. S., aged 40, applied to me for advice, Nov., 1851, under the following circumstances :—Twelve months ago, he had lost an upper molar tooth in a very curious manner ; had lost a second only a few days ago; and a third was now loose. His appearance was sallow and unhealthy, but he was strong, and able to take a great deal of fatiguing exercise. I ascertained that he had had a slight attack of syphilis twenty years ago, which was cured, he believed, without mercury. He had had no secondaries, and all his children were strong and healthy. Has never been salivated, or taken mercury to his knowledge. On one occasion, he has had a sudden, severe, and transient attack of dyspnœa; and on another, a slight attack of dyspepsia and jaundice. With these exceptions, he has always enjoyed good health. I could find no disease of any of the internal organs; all the functions were healthfully discharged.

About a week ago he was suddenly attacked with a feeling of intense debility, so great that he reached his home (in the country) with great difficulty. He took a warm bath and went to bed. The debility continued all the next day, and was accompanied by excessive pain in a circumscribed portion of the dorsum of the foot. The debility then began to wear off; next day the pain shifted to the tibia; the next day to the femur; it remained about a day, and then left him altogether. The painful spot might be covered with a half-crown, and was in the front middle of the thigh and leg. He had, however, a very slight, almost imperceptible, aching in the face, and a little swelling, otherwise he felt perfectly well. The next day an upper molar tooth fell out, followed by an offensive discharge from the socket ; and on the following day the canine next to it came out, and appeared perfectly dead. The last molar on the left side was lost, under precisely similar circumstances, twelve months ago: a fetid discharge continued for some weeks, some fragments of bone exfoliated, and the alveolar process has since become absorbed. On examination of the mouth, a few points of superficial ulceration were seen about the incisors, and in the vicinity of the recently emptied sockets. I could find no exposed bone. I recommended the application of the nitrate of silver in solution to the ulcers, and iodide of potassium internally.

His appearance improved under the iodide, and he continued free from all recurrence of his complaint until Oct. 27, 1852, about twelve months; that is to say, since the preceding attack. On that day he got cold and wet while shooting, and had a return of his old symptoms. Another tooth dropped out. Shortly afterwards a large portion of the alveolar process came away, the remains of the second attack ; and I could feel a portion of dead bone in the vicinity of the remaining canine. Two other teeth were loose, and there was a fetid discharge from the recently emptied sockets.

I could detect no ulceration in any part of the mouth. His general health seemed good, but his complexion was sallow. The same plan was recommended, but without any effect; for I am informed by the dentist with whom he first came to me, that he has lost the whole of the teeth in the upper jaw. They all became loose one after the other, and were taken out by the fingers.

The teeth in the lower jaw are perfect. From first to last he has never had any pain in the face, or any notable signs of inflammation in the gum or alveolus. He has never been struck on the teeth, or suffered any bodily injury. As I can offer no reasonable explanation for the whole of the symptoms, I will leave the case without comment.

Liverpool.

CASE OF RHEUMATIC CARDITIS.

By HENRY GRAMSHAW, M.R.C.S.E., L.A.S.

In the month of November last I was called upon by Mrs. A., and requested to visit her child, a boy twelve years old, suffering, according to her account, from pain and swelling in his limbs.

November 26.—I found the patient seated by the fire-side, with a flushed and anxious countenance. In reply to my inquiries, he stated that, for the last ten days, he had felt pain in the joints, aggravated by the warmth of bed. He thinks he got wet feet walking to school one morning, from which time he dates the commencement of his illness. The joints of the right hand are swollen and tender, and he complains of pain in the right leg, shooting from the knee. His tongue is coated with white fur; pulse 100, full and bounding ; the urine thick, and loaded with lithates. On applying the stethoscope over the region of the heart the systole and diastole appeared to be removed further from the ear than natural, and to have a muffled character. There was also increased dulness on percussion. The patient did not complain of pain in the heart, but, on desiring him to take a full inspiration, he says it "catches him" so to do. Pressing up the diaphragm with the hand under the ribs gives him slight pain. I removed ʒxii. of blood, and prescribed

℞ Hyd. submur. gr. iij. ; pulv. opii, gr. i. M., ft. pil. s. s.

℞ Hyd. submur. gr. ij. ; sacchari gr. ij., pulv. opii, gr. ¼ ; M., ft. pulv. One to be taken every four hours.

℞ Magnes. sulph. ʒiij. ; magnes. carbon. ℈ij. ; vin. colchici ʒj. ; aquæ ad ʒiij., misce. Two table-spoonsful of the mixture every four hours.

27th.—Has passed a more comfortable night. The bowels have been relieved once. Suffers from occasional sharp pain in præcordial region. Pulse, 98; irregular in force. No tenderness of the gums. To continue powders and mixture.

I was sent for this evening, the patient having suffered from what the mother describes as "a sort of fit." He started up in bed with a wild expression of countenance, and appeared not to comprehend questions put to him, and to return vague and rambling answers. He also complains of a fixed and severe pain in the fore part of the head.

The father and mother, misled by the symptoms, are busy applying vinegar and water to the forehead.

I ordered twelve leeches over the heart, and a bran poultice to be placed on when they fell off. To continue powders and mixture.

28th.—I may mention that I was again sent for last night to stop the bleeding from the leech bites, which, it appears, alarmed the parents. The boy was in a state of exquisite discomfort, his chest being crusted over with bran and clots of blood, for the bran was put on, instead of in, a flannel bag. It seems a medical man cannot be too minute in his directions. On visiting him this morning, I find the pain in the head relieved by the leeching; has still some pain in left side ; pulse 90; the system still resists the influence of mercury; no pain in any of the joints. To continue mixture and powders, and to rub in ʒij. of strong mercurial ointment; also to have a blister over the heart. I can distinctly make out a rubbing sound, which I attribute to lymph. poured out on the pericardial surfaces.

29th.—The blister rose well, and since its application he has lost all internal pain. The pulse has fallen to 80. He was purged three times in the night, but the purging ceased after taking an astringent draught. The gums are not yet tender. I changed the calomel powders for hyd. c. cret. and Dover's powder, in the proportion of five grains of the former to four of the latter, one every four hours. To continue the mercurial inunction.

30th.—Complains of his teeth feeling loose, and there is some tenderness of the gums ; has lost all pain in his limbs and side; slept well; pulse 85. The rubbing, or "to and fro" sound has ceased, but there is a perceptible bellows-sound during the systole of the heart.

I need not trace this case further in detail. After a course of tonics with iodide of potassium, the child appeared to have recovered, lost all pain, improved in appearance and appetite, and I discontinued my attendance, feeling sure I should hear of my patient again at no distant date.

On December 28 I was again called in. The child had been on a visit, and during the evening sat in the draught of a door. A fresh attack was the consequence. Of course I

did not resort to a similar activity in treatment. The bellows-sound is distinctly perceptible, the heart's action embarrassed, and the pulse, when last I counted it, 120. Almost every night the boy starts up and "mithers" (a Staffordshire expression I suppose) in his sleep, sometimes crying out "his heart's gone from him." Taking all these symptoms together, I am inclined to prognosticate a fatal and sudden termination of the disease. The *post-mortem* appearances would be worth recording.

Tettenhall, Staffordshire.

THE MEDICAL TOPOGRAPHY OF LONDON,

AND THE

SURROUNDING COUNTRY WITHIN TEN MILES.

By KLEIN GRANT, M.D.

Formerly Senior Physician to the Royal General Dispensary, and Lecturer on the Practice of Physic in the Aldersgate School of Medicine; Editor of "Hooper's Medical Dictionary," etc., etc.

[Continued from p. 381, Vol. V.]

The nature of the soil and surface of a district influences the health of its inhabitants in a variety of ways. The physical and chemical qualities of the soil itself, especially in relation to their influence on temperature, and to the retention of moisture, are of great importance in this point of view; and it has long been a familiar fact, that the temperature is higher in districts covered with sand than in those of which the surface consists of clay or other compact soils.

The following valuable remarks on the temperature of soils, and their relations to moisture, are condensed from Sir H. Davy's lectures on agricultural chemistry:—

Some soils are, *cæteris paribus*, much more heated by the rays of the sun than others; and, of different soils brought to the same degree of heat, some cool much faster than others. In general, soils that consist of a stiff, white clay are heated with difficulty, and, being usually very moist, they retain their heat only for a short time. Chalks are similar to these in being slowly heated, but, being dryer, they retain their heat longer. A black soil, containing much soft vegetable matter, is most heated by the sun and air; and the coloured soils, and those containing much carbonaceous or ferruginous matter, exposed under parallel circumstances to the sun, acquire a much higher temperature than pale coloured soils.

When soils are perfectly dry, those which are most readily heated by the solar rays likewise cool most rapidly; but the darkest coloured dry soil, which contains abundance of animal or vegetable matter—substances most conducive to the diminution of temperature—when heated to the same degree, provided that degree be within the common limits of solar heat, will cool more slowly than a wet, pale soil, entirely composed of earthy matter.

The moisture in the soil influences its temperature; and there are two states in which water seems to exist in the earths, and in animal and vegetable substances,—in one it is united by chemical, in the other by cohesive attraction. When pipe clay, dried at the temperature of the atmosphere, is brought in contact with water, the fluid is rapidly absorbed; this is owing to cohesive attraction. Soils in general, and vegetable and animal substances that have been dried at a heat below that of boiling water, increase in weight by exposure to air, owing to their absorbing water existing in the form of vapour in the atmosphere; and this, also, is in consequence of cohesive attraction. The water chemically combined with the elements of soils, unless in the case of the decomposition of animal or vegetable substances, cannot be absorbed by the roots of plants; but that adhering merely to the parts of the soil is in constant use in vegetation. Indeed, there are few mixtures of the earths found in soils that contain any chemically-combined water; water is expelled from the earths by most substances that combine with them. When saline substances exist in soils, they may be united to water both chemically and mechanically; but they are always in too small quantity to influence materially the relation of the soil to water. The power of the soil to absorb water by cohesive attraction depends, in great measure, upon the state of division of its parts; the more divided they are, the greater is its absorbent power. The different constituent parts of soils likewise appear to act, even by cohesive attraction, with different degrees of energy: thus, vegetable appear to be more absorbent than animal substances; animal substances more so than compounds of alumina and silica; and these more so than carbonates of lime and magnesia. These differences may, however, possibly depend upon the differences in their state of division, and upon the surface exposed.—Pp. 178–183.

Doubtless, also, each variety of soil has its own particular, though hitherto undetermined, relations to electricity, and thence to the atmospheric changes dependent on electrical agencies.

In the case of marshy soils, the times of the year at which noxious miasmata rise in greatest abundance, and the extent to which evaporation may have taken place when such exhalations are found to be most pernicious, are questions of great moment; but they will come to be considered more appropriately under the head of "swamps."

When the surface of a country has been extensively cleared and brought into cultivation, the air is necessarily much warmer and drier in summer than in one which remains covered with forests and marshes. It is a popular notion, that, in districts thus reclaimed, the cold of winter becomes diminished; but more accurate observation, in different parts of the world, has gone to prove that, generally speaking, wild districts which have been cleared and cultivated, while they become warmer in summer, become also colder in winter, in other words, that the range of the thermometer becomes greater.

The adaptation of the soil to the cultivation of various crops, to the purposes of pasture, or to the growth of timber, will influence health, not only directly by its effects on temperature and moisture, but indirectly by modifying the diet and the habits of the population.

In large towns, where the streets are paved, or Macadamised, the surface is almost entirely an artificial one, so that the natural soil over which they are built can have comparatively little influence.

On the Middlesex side of the river, London and its vicinity rest on that peculiar formation which has received the name of the blue clay, or London clay, which is found immediately beneath the vegetable soil, except here and there, where deposits of alluvial gravel or sand occur, lying over diluvial beds of similar substances. The few and low hills which are to be met with are formed of a basis of blue clay, covered with ferruginous sand, and gravel. The soil of Middlesex in the vicinity of London, consists chiefly of three varieties, namely,—1st, poor sand, and gravel, which occur on the elevated grounds, and various parts of the plain; 2ndly, a fertile loam, lying over gravel, and sometimes over peat, along the plain through which the Thames flows; 3rdly, muddy deposits from the Thames, converted by cultivation into a rich, black, vegetable mould, admirably adapted for the purposes of market gardening and horticulture. The blue clay, in many districts, approaches near the surface, forming a soil which requires a great deal of artificial treatment to render it arable, and which is, therefore, chiefly devoted to the cultivation of grass for hay-making. In the commons, which are now comparatively few, this soil is still found producing a scanty and stunted grass. In many places there are loams of considerable depth, well adapted for the growth of grain and for agricultural purposes in general: other portions of this soil, of a lighter quality, are laid out chiefly in orchards, market-gardens, and nursery-grounds.

On the Surrey side of the Thames, the Metropolis and its environs still lie on the London clay, which, for some distance, forms a district almost completely level, but rises to the southward into an amphitheatre of low hills, extending from New-cross, near Deptford, to Richmond.

Along the southern bank of the river, in the neighbourhood of London, the blue clay is covered chiefly with alluvial loam, which, by culture, has been covered, to the depth of several feet, with a rich black mould, highly favourable to the purposes of market, as well as of ornamental gardening.

We shall have occasion to comment more particularly on the soils in the vicinity of London when we have finished our survey of the Metropolis itself, and carried our inquiries to some distance into the surrounding country.

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

UNIVERSITY COLLEGE HOSPITAL.

DISLOCATIONS OF THE HUMERUS.

[Under the care of Mr. QUAIN.]

THE determination of the maximum period, after the lapse of which it is prudent to attempt the replacement of dislocated bones, is a subject of the last importance, and one which has always engaged much attention from practical surgeons. We are, therefore, very glad to be able to add to the facts already collected respecting it the two following cases, in which the shoulder was the affected joint, and in one of which Mr. Quain succeeded in effecting reduction after the unusually long period of ten weeks. Before, however, proceeding to detail them, we will take a very brief glance at some of the most instructive of those already on record, still restricting our remarks to dislocations of the humerus. In the "Transactions of the Medical Society of Calcutta," Mr. Twining has mentioned the case of a robust and healthy sailor, in whom a very satisfactory reduction was effected fifteen weeks after the accident; and others of nearly the same duration have occurred in the practice of Dupuytren, of Sir Astley Cooper, and of Mr. B. Cooper. There must, however, be placed against these the very numerous failures which have happened to the best surgeons, even at periods of not more than half that length, and also the severe and sometimes fatal accidents which have repeatedly resulted from long-continued efforts at reduction. As an illustration of the former class, we may quote a case, the particulars of which are now before us, and which occurred at one of the large hospitals, under a most skilful surgeon, a few months ago. A plethoric man, aged 64, sustained a dislocation of his left humerus into the axilla, which was overlooked by his ordinary medical attendant, but at once detected on his application at the hospital *three weeks* after the accident. He was so fat and stout that no minute examination of the glenoid cavity could be effected. After long and persevering attempts it was at last thought that the bone had returned to its proper place, as the natural contour of the shoulder appeared very nearly restored. The exact period at which it returned had, however, not been recognised, as no snap had marked it. The arm was bandaged to the side, and a large pad placed in the axilla. In the course of a week it became evident the bone was gradually slipping out of place again. At first, by forcibly elevating the arm, it might be lifted pretty nearly into position, so as to obliterate the hollow beneath the acromion, but, by degrees, it became fixed in the axilla. The operator believing the glenoid cavity to be filled with lymph, judiciously declined to attempt anything further. The man has not yet regained the power of elevating his arm, and he suffers considerably from numbness in the parts supplied by the ulnar nerve.

Mr. Gibson and M. Haubert have each recorded more than one case in which death was occasioned by laceration of the axillary artery, and the latter has also mentioned one in which the brachial plexus of nerves having been torn from its connexion, death ensued from inflammatory softening of the cord. In several cases the whole arm has been rendered useless by injury to the nerves, or extensive laceration of the soft parts around the joint; and it must be borne in mind, that in none of these melancholy cases had the dislocation existed for more than nine weeks, and the greater part of them for not nearly so long a period.

Thus, in contemplating a long-neglected displacement of the humerus, the surgeon has to strike a balance between the risk of inflicting severe, and possibly fatal injury, if the attempt at reduction be made, and the certainty that the member will remain permanently crippled in its movements if it be omitted. In this dilemma, the importance of all means of discriminating the fit case for treatment from those in which it should be avoided can scarcely be overrated. With this view, the history of the case should be inquired into, as to whether or not much inflammation followed the accident; in which case it is very probable that, by the free effusion of lymph, not only has the natural condition of the parts composing the joint been destroyed, but the nerves and vessels may have been glued together, and to the bone, in such a way as to seriously risk their integrity should forcible movements be resorted to. The condition of the head of the bone and of the glenoid cavity should also be carefully examined by deep pressure with the finger. Should it appear that these parts are in a nearly natural state, and more especially if the patient have in no degree recovered from the original immobility of the parts, great hopes may be entertained of success. It is obvious that cases differ so much from each other, that no rule can be laid down which shall apply to all; probably the general one offered by Sir A. Cooper, that reduction should never be attempted after the lapse of more than three months, may be as trustworthy as any. We suspect, however, that, in many cases of not nearly that duration, the attempt would, besides being almost certain to fail, be attended with great hazard.

Case 1.—DISLOCATION OF THE HUMERUS OF TEN WEEKS' DURATION.—COMPLETE REDUCTION.

Charles Cox, aged 51, was admitted on Nov. 8, 1852, with the account that, ten weeks previously, he had fallen in going down some steps, and struck his right elbow; that such severe pain in the part struck had followed as for some days to divert his attention from the shoulder; but that the movements of the arm had continued much impaired, and that he had latterly noticed a loss of symmetry in the affected shoulder. He had not consulted any medical man. The symptoms of dislocation were well marked; there was angularity and projection of the acromion, with flattening beneath it. The head of the humerus could be distinctly felt beneath the outer third of the clavicle; and the right arm, when measured from the acromion to the inner condyle, was found to be a full quarter of an inch shorter than the left. He had, however, from the first, according to his own account, possessed an unusual degree of mobility in the arm. Although it was almost powerless, yet it might without pain be lifted into a horizontal position, and he could raise the hand to the forehead, but not on to the head. There was also some numbness in the middle finger.

Mr. Quain decided to attempt reduction without further loss of time; and, the man having accordingly been put under the full influence of chloroform, a bandage was adjusted so as to protect the skin, and the compound pulleys applied. Extension was first made directly downwards; then, the arm having been gradually brought into a horizontal position, it was made directly outwards, the operator, at the same time, endeavouring to lift up the head of the bone. By these means the bone was gradually dislodged, and, the extension having been kept up for nearly an hour, it appeared the due relations of parts had been restored, and, a large pad having been placed in the axilla, the arm was brought down to the side, and there confined by a bandage.

We must here say a few words on the manner of applying force, which Mr. Quain, according to his usual custom, resorted to in this and the following case:—The patient was laid on his back on a movable table, placed between the points at which the means for effecting extension and counter-extension had been attached. Mr. Quain believes that the table possesses great advantages, inasmuch, as by merely altering its position, a change can be effected in the direction of the extending force without disturbing the patient. For the purpose of extension, the screw apparatus, invented by Dr. Broxholm(a), was employed, by means of which the operator can himself regulate the exact amount of force used, and also insure its being steady and constant in character.

On the 17th, the bandage was removed, and a sling substituted for it. The bone appeared to be in its place, with the exception of seeming a little too forward.

On December 14, the general contour of the shoulder was quite natural, nor could careful manipulation detect any deviation from the proper relative position of parts. He could pronate and supinate, lift his hand on to the crown of his head, or perform any other ordinary movements, with ease. A slight numbness in the finger still remained, but unattended by pain.

Case 2.—DISLOCATION, WITH FRACTURE OF THE HUMERUS OF NEARLY TWELVE WEEKS' DURATION.—UNSUCCESSFUL ATTEMPT AT REDUCTION.

John Jones, aged 46, was overturned in a dog-cart, on July 1, 1852. He was considerably bruised, and, among other injuries, sustained a fracture of the humerus in its lower third. A surgeon whom he consulted put up the arm in splints, and kept it so for six weeks. On removing them the man, notwithstanding that the fracture was firmly united, found himself unable to comply with the directions he had received to exercise the limb; and, on again applying to the surgeon respecting it, the latter discovered a dislocation into the axilla, and at once sent him to the hospital, where he was admitted on Sept. 22. The ordinary symptoms were well marked, and no doubt could be entertained as to the nature of the case. Mr. Quain had him put under chloroform, and the pulleys applied; extension was then kept up; at first downwards, then outwards, for a very considerable time. At length, on suddenly relaxing the traction, at the same time that the head of the

(a) For a full description of this ingenious apparatus, see the *Medical Times and Gazette*, May 29, 1852.

bone was forcibly lifted upwards, reduction appeared to be almost complete. An axillary pad was applied, and the arm confined by a bandage.

On the 28th, on changing the bandage, it was evident that the acromion was unduly prominent, and on the succeeding days a gradual sinking down of the head of the humerus took place, until it had returned nearly into its former location. Mr. Quain, on account of the condition of the bone and muscles at the seat of fracture, did not think it prudent to attempt anything further, and on the 9th the man was allowed to return home.

For the notes of the above cases we are indebted to Mr. Meadows and Mr. Jones, the dressers of the patients. We may remark in conclusion, that the fracture of the bone which had occurred in the last case, much interfered with the proper and full application of force; and that, had circumstances been otherwise, it is not improbable but that reduction might have been effected.

In the treatment of this class of accidents, modern surgeons have in chloroform a great advantage over their predecessors. If for any reasons it be deemed advisable not to employ it, great attention must be paid to keeping the patient's mind as much as possible directed away from the operation. He should be made to converse, by which not only are the nervous energies directed elsewhere than to the offending muscles, but from the walls of the chest being kept in motion, the muscles are prevented from gaining such fixed points of attachment as they would otherwise have. In alluding to a case in which reduction was accomplished three months after the accident, Mr. B. Cooper makes the following interesting statement: —"Frequently during the extension I addressed myself to the patient, and kept up a kind of conversation with him; and he afterwards told me that he could distinctly feel that he lost all voluntary power over his muscles while he was obliged to continue the dialogue; and that the necessity of conversation seemed to reduce him more than even the tartar emetic which had been exhibited."

ST. THOMAS'S HOSPITAL.

PHTHISIS AND PNEUMO-THORAX.—METALLIC RESPIRATION.—DEATH.—AUTOPSY.

[Under the care of Dr. LEESON.]

Among the most valuable of the signs by which the auscultator is accustomed to estimate the amount of disorganisation in tubercular disease of the lung, are the modifications produced in the character of the breathing. Proceeding by downward gradations from the soft, breezy sound of health, he finds it becoming first harsh, then tubular, next cavernous, and lastly "amphoric." With the last-mentioned variety it is that we have at present to do. It is a sound so peculiar, and unlike every other, that when once heard, it can never be forgotten, and few, we should think, ever listened to it for the first time without feelings of surprise, that so remarkable a note could emanate from living structures. It is as if a tin box had by some magic been introduced into the patient's thorax, and put into communication with his bronchial tubes, so as to receive at each breath a gush of air. Dr. Watson has well compared it to the sound produced by blowing obliquely into an empty flask, and adds:—"I have heard fifty times over exactly the sound in question, when I have been out shooting on a gusty day, and the wind has blown sideways into the gun-barrel." As distinguished from cavernous, its peculiarity consists in its clanging, *metallic* note, which is usually so well marked, that it is to be regretted that the "somewhat magnificent title" of amphoric resonance has been applied to what every listener would, we feel sure, involuntarily pronounce to be metallic breathing. Having premised thus much respecting its character, we will now say a few words as to the conditions which it denotes. It appears to be essential for its occurrence, that *a large and thin-walled cavity in the chest shall communicate freely with the bronchial tube*,—a condition which is supplied in the greatest perfection when pneumo-thorax results from the bursting of an abscess in the lung into the pleural sac by a large opening; and it is also present in some cases of phthisis, when enormous excavations have formed. It appears essential for its occurrence under the latter circumstances, that not only shall the cavity be a very large one, but that it shall have extended itself to within a very little of the pleural investment of the lung so as to have reduced the intervening structures to a state of great thinness. Now, the peculiarity in the two cases which we are about to detail is, that, while metallic breathing of very marked character was present, yet neither the voice resonance nor that of the cough, in any way partook of the clanging note. It was noticed by Laennec, and most subsequent writers have confirmed his observation, that tuberculous cavities yield a pectoriloquy intense in proportion to their size, up to a certain magnitude, after exceeding which, the sound not unfrequently becomes less loud, or even ceases to be heard at all. This, however, is not constant, but rather an exception to the rule, and all will probably admit, that metallic or amphoric voice and cough are more common than the same kind of breath sound, and that almost invariably when the latter is present, the former exist in yet greater intensity. How, then, are exceptional cases like the two following to be explained. It is plain that the size of the cavern will not do it, for that has been supposed to be very large in all, and the cause of an inconstant phenomenon must be sought in some variable condition, not in that which is uniform. We would venture to suggest that the loss of pectoriloquous or of metallic voice resonance, may possibly be explained by the smallness of communication with the air passages which sometimes exists. To a considerable degree it is but supposition, and we ask for it only to be received at its *quantum valeat*, that a communication with the bronchial tube, which is too small to admit vibrations originating in the larynx, as those generated in speaking and coughing, may yet be large enough to allow a volume of air sufficient to produce them to enter at each inspiration.

The first of the cases we are about to detail is an example of pneumo-thorax, and the second of a large thin-walled vomica. In both of them the orifices of communication with the bronchial tubes were very small in size, and in neither was there present during life any preternatural resonance of the voice or cough, while the metallic character of the breathing was extremely well marked.

Henry Ludlow, aged 33, was admitted in October, 1852, in a condition of such extreme prostration, that it was evident he could not live long. He suffered so much dyspnœa, that it was with great difficulty the particulars of his illness were obtained from him. It appeared that he was a labouring man, and had been much exposed to wet in his occupation; that about three months previously he had begun to lose flesh and to experience an increasing shortness of breath. Soon afterwards he had spit a small quantity of blood. These symptoms continued, but were not of severity sufficient to make him give up work until within a few days of his application at the hospital, when rather suddenly his difficulty in breathing became greatly aggravated, and accompanied also by much pain in the left side of the chest. On admission, his countenance was dusky and lips livid; skin cool, and that of the extremities clammy; pulse rapid and extremely feeble. He lay partly on his back and partly on the right side, being prevented by pain from turning over on to the left. The auscultatory examination was conducted only on the front of the chest, as it did not seem advisable to trouble him by making him sit up. Percussion over the left side elicited a clear tympanitic resonance, but was somewhat less resonant than natural over the right. On applying the stethoscope beneath the right clavicle, harsh bronchial respiration, attended with crepitation of a medium size, was heard: while below and about the mammary region of the same side there was vesicular breathing of nearly natural character. Over the whole upper two-thirds of the left chest there was heard at each inspiration a loud ringing metallic note, such as we have above alluded to, and it was also audible, though to a much less degree, during the first half of the act of expiration. In the lowest part of the chest, especially on passing round the side towards the back, very large crepitation accompanied both inspiration and expiration, and much masked the metallic sound. On making the patient cough or speak, however, no peculiar sound was transmitted through the stethoscope.

Death took place on the third day after admission, and we have obtained, through the kindness of Dr. Bristowe, the Demonstrator of Pathology to the Hospital, the following notes of the *post-mortem* examination. The layers of the right pleura were universally adherent, and in the apex of the right lung were several small cavities surrounded by tuberculous deposition. The sac of the left pleura contained a considerable quantity of air, and about two pints of turbid serum; both its pulmonary and costal layers, wherever not united by adhesions, were covered with a softish coating of recently effused lymph. The lung itself was collapsed to such an extent, that only a very small portion of the lower lobe remained crepitant. At its apex, and down its whole length posteriorly, it was firmly connected by adhesions to the walls of the chest. In the upper half, which was now shrunken and solid, were numerous masses of tubercle, and several small vomicæ; communications had formed between one of the latter and the cavity of the pleura, by means of two small oval orifices very near together, and each about capable of admitting a fine crow-quill. These fistulæ existed about the middle of the outer convex surface of the upper lobe. In the lower lobe were many cavities containing fluid.

During the life of the patient, some difficulty had been felt, in the absence of any history of the development of the physical signs, in determining by them whether the disease were pneumothorax, or an enormous tubercular excavation. The presence of gurgling

crepitation in the lower portions seemed to oppose the diagnosis of the former affection. As will be seen, the autopsy very completely explained the mode in which this seeming discrepancy had been produced, viz., by a portion of lung containing cavities having been bound by adhesions to the lower part of the thorax. The other phenomena received also, we think, a tolerably full explanation; for it is not difficult to suppose that the track through which the air passed at each inspiration into the pleural sac, was both too small and too tortuous to readily transmit the sounds generated in speaking and coughing.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST.

PHTHISIS.—VERY LARGE VOMICA.—METALLIC BREATHING.—DEATH.—AUTOPSY.

[Under the care of Dr. BENTLEY.]

THE course of phthisis in the aged is, we believe, often very slow, and generally unattended by the subacute symptoms which so frequently are present in younger subjects. In the latter it is common to meet with general disorganisation of the whole lung structure, resulting apparently half from tubercular depositions, and half from the consequent inflammatory attacks. The cavities are usually numerous, opening into each other, and presenting very irregular, anfractuous boundaries. In the aged, on the contrary, the vomicæ are often few in number, smooth-walled, lined by a secreting membrane, and, by gradual increases, not unfrequently attain to a very large size. If this be true, the conditions likely to give rise to amphoric respiration should be much more commonly met with in subjects of advanced age than in others. We have ourselves only heard well-marked metallic breathing dependent on a vomica in two cases, and in each instance the patient had passed the age of sixty. In one, a man who some years ago was under the care of Dr. Simpson, in the York County Hospital, symptoms of chronic phthisis had existed for ten years before death. To a short account of the other we now invite the reader's attention.

Ellen Sims, aged 67, a tall but very spare old woman, was admitted on July 7, 1852. She stated that two years ago she had been under treatment at the same hospital on account of cough, attended with slight spitting of blood, and that for five years she had been losing flesh and suffering from gradually increasing shortness of breath. Two months previously to her present admission she had been an in-patient at St. Bartholomew's Hospital, in order to have an ulceration of the upper lip excised, which had resisted all treatment, and was suspected to be malignant. After the operation, however, the microscope failed to detect any evidence of its possessing a cancerous character. The wound healed favourably, and she was soon discharged. Whilst there her chest was examined, and signs detected exactly similar to what we are about to describe. In relation to the ulcer of the lip we must remark, in passing, that she had been accustomed to smoke for the greater part of her life.

On listening over the left lung, no morbid sounds, except somewhat harsh expiration, and an occasional rhonchus were heard; percussion, also, elicited from most parts a tolerably clear note. On the right side, however, over the whole space between the clavicle and the lower border of the fourth rib, a sharp, loud, metallic twang was audible during each breath-movement, being most marked during expiration. During speaking or coughing there was usually no sound whatever conveyed up the stethoscope, but occasionally a faint whisper was heard during the former act; it did not, however, possess any sonorous character. Percussion over this part gave the peculiar sound produced on tapping a leathern trunk, a modification of that known as the *bruit de pot fêlé*. Beneath the nipple the respiratory sounds were heard with tolerable distinctness, although rather harsh. No moist sounds could be detected. Under the usual treatment she appeared at first to make some improvement; a condition of extreme gastric irritability, however, supervened, which, preventing her from retaining nourishment, occasioned a rapid loss of strength, and, after a month's confinement to bed, she died on October 30.

Autopsy.—On opening the thorax, numerous bands of adhesion were found uniting the layers of pleura on the right side; they were, however, easily torn through. The upper half of the lung was distended and tense, and on pricking it a gush of air escaped, and the thin walls of a large cavity immediately collapsed. On making a section of it, almost the whole of the upper lobe was found excavated into one cavern, the walls of which consisted of little more than thickened pleura. It was lined in all parts by a smooth secreting membrane, and had entering into it three orifices, one in the lower part communicating with another cavity below of small size; the other two were the openings of bronchial tubes, and were with some difficulty found, being neither of them large enough to admit a crow-quill, and in each case entering the vomica very obliquely. In the lower lobes were numerous masses of tubercle in a crude state. In the left lung, the upper lobe was almost free from tubercle, while the lower one contained deposits of considerable size, but no cavities.

PHTHISIS IN INFANTS.

Several very interesting cases of phthisis in very young children have recently come under our notice. In one of them, which occurred at this hospital, a little boy, aged *one year*, died after having presented all the usual symptoms of this disease, both general and auscultatory. He was extremely emaciated, had spit blood, and bore the aspect usually presented by adults when suffering the last stages of the complaint. At the *post-mortem* examination, numerous and large cavities were found in the apices of both lungs. It is worthy of note, that his father had died of phthisis three months before this infant was born, and that he had presented symptoms of the disease for more than a year; thus making it certain that the child had been begot by a parent who at the very time was the subject of consumption. During the first nine months of his life the infant was remarkably strong and healthy-looking.

In another case, an out-patient at St. Bartholomew's Hospital, aged 21 months, the size of the vomica was the most remarkable feature. The upper portion of the right lung was found at the autopsy so extensively hollowed out, that it was capable of containing a large orange. The walls of the cavity were irregular, and much broken down. Such dimensions, although not of very rare occurrence in the adult, are of course enormous for the age we have mentioned.

POISONING BY COLCHICUM.—An inquest has been held lately before Mr. Carter, the coroner for Surrey, at the Black Horse Tavern, Lower-road, Deptford, on the body of Mr. Clements, late Master of the Mary, Government hoy. It appeared that on arriving lately at Deptford, he consulted Dr. Gunn, complaining of violent pains in the stomach, and vomiting, which, he said, were consequent on his having taken something from a bottle he had with him. He continued in the same state, and died the next morning from exhaustion. Dr. Gunn gave evidence to this effect, and produced the bottle, which, he said, had contained, as the label denoted, the tinct. sem. colchici. His assistant told him, that the deceased had taken a wine-glassful of it. The tincture, when taken in large quantities, is poisonous. The *post-mortem* appearances were such as would be discovered after the taking such a dose. In reply to a question, Dr. Gunn proceeded to state, that he had prescribed from twenty to thirty drops of the preparation, and in some cases forty,—sixty even had been given; but such a dose was very rare, and was likely to cause death if the person were not used to it. No traces of colchicum were discoverable in the body. The assistant said, that the deceased had informed him that he had taken a wine-glassful of the medicine, and that it had been given to him by a person who said it would do him good "if he got drunk over-night." In reply to another question, Dr. Gunn stated, that the tincture had been made at sea, rum having been used instead of sp. v. r. A brother of deceased asserted, that it had been given to his brother by the "loblolly-boy" (a term used on board a man-of-war for the "doctor's assistant") of the Rosamond, and that his brother, feeling a little chilly, had taken a wine-glassful of it, thinking that, as there was rum in it, it would warm him. The further inquiry was adjourned. This case proves the danger that necessarily follows a careless or laic tampering with powerful drugs. The late Right Hon. Richard Lalor Sheil perished in consequence of taking an over-dose of colchicum for the relief of gout, his constitution having been already greatly undermined by disease.

LONDON AND PROVINCIAL MEDICAL PROTECTION AND BENEVOLENT SOCIETY.—During the brief period this Society has existed, it appears that 23,790*l.* 9s. 11d. has been collected for its members. The debts entrusted to it for recovery are for the most part either barred by the Statute of Limitations, or surrounded by other almost insuperable difficulties. The whole amount may therefore be regarded as clear gain to the subscribers. The Society's exertions appear generally successful when the nature of the business entrusted to its care admits of success. The advantages offered by this Institution are calculated eventually to secure the patronage of most General Practitioners.

LIST OF SCIENTIFIC MEETINGS.

This Evening, Jan. 15.—Medical Society of London. Eight o'Clock.

Tuesday, January 18.—Royal Institution.—*Subject*:—"On Animal Physiology." By T. Wharton Jones, Esq., F.R.S. Three o'Clock.

—— —— Pathological Society of London.—*Meeting of Council.* Seven o'Clock.

Wednesday, January 19.—Geological Society of London.—*Subjects*:—1. "On the Remains of Reptiles and a Sand Shell, discovered in the Interior of an Erect Fossil Tree in the Coal Measures of Nova Scotia." By Sir C. Lyell, V.P.G.S., and J. W. Dawson, Esq.—2. "On the Remains of the Batrachian Reptiles found in Nova Scotia by Sir C. Lyell and Mr. Dawson." By Professor J. Wyman. With Notes on the same by Professor Owen, F.G.S.—3. "Notice of a Batrachoid Fossil from British Coal-shell, in the Museum of the Earl of Enniskillen, F.R.S." By Professor Owen, F.R.S., etc. Half-past Eight o'Clock.

Thursday, January 20.—Royal Institution. — *Subject*: — "On the General Principles of Geology." By John Phillips, Esq., F.R.S. Three o'Clock.

—— —— Harveian Society. Eight o'Clock.

Friday, January 21.—Royal Institution.—*Subject*:—Observations on the Magnetic Force." By Professor Faraday. Half-past Eight o'Clock.

—— —— Western Medical and Surgical Society.—*Subject*:—"On the General Paralysis of the Insane." By W. Martyn, Esq. Eight o'Clock.

Saturday, January 22.—Royal Institution. *Subject*:—"On the Philosophy of Chemistry." By Alexander W. Williamson, Ph. D. Three o'Clock.

—— —— Medical Society of London. Eight o'Clock.

Medical Times & Gazette.

SATURDAY, JANUARY 15.

THE PHARMACEUTICAL SOCIETY AND THE MEDICAL PROFESSION.

It may perhaps be generally recollected that the Pharmaceutical Society lately applied to Parliament for an Act which was intended to regulate by very stringent means the practice of Pharmacy in the United Kingdom. By the strenuous efforts of a Member of Parliament attached to the Society, aided by the exertions of others in the trade, and encouraged by many members of the Medical Profession, the Bill, as originally constructed by its founders, was very nearly passed into a law, and it was probably in some measure owing to the dissemination of the views adopted by this Journal that the more objectionable features of the proposed enactment were removed, and the Bill allowed to pass in its present shape. The original Bill contemplated nothing less than to compel all chemists and druggists now practising as such to become members of the Pharmaceutical Society, and all persons intending hereafter to adopt that business to submit to an examination before receiving their certificates.

We rejoice that the Bill, as originally framed, was not allowed to pass, because, however anxious we may be that education should be promoted among chemists and druggists, we hold it to be perfectly monstrous to endow that class of tradesmen, however respectable they may be, with powers such as never have belonged to the Medical Profession. While quackery flourishes without molestation — while illegal medical practice everywhere abounds—while all the sinuosities of the law and all the refinements of special pleading are employed to screen offenders against their medical brethren from due punishment — while homœopathy, hydropathy, mesmerism, electro-biology, and a thousand other systems more or less absurd, are not only unvisited by the law, but are actually fostered by some of the highest authorities in the land—it would have been a strange anomaly if the Pharmaceutical Society had been empowered to inflict summary punishment upon an unfortunate druggist, whose crime might perchance consist in selling an ounce of salts, or a scruple of rhubarb, without having the licence of the authorities in Bloomsbury-square. When, again, we reflect, that already the Profession is yearly deprived—we might almost say robbed—of thousands of pounds by pharmaceutists, who prescribe over their counters or even boldly visit patients at their own houses, it would have been, indeed, a hardship, if this illegal appropriation of professional practice had received, as it were, a stamp of approbation from the Legislature. We do not, indeed, affirm that the proposed Bill intended to confer the right to practise medicine upon the members of the Pharmaceutical Society, but still it did not, by any means, implicitly renounce that right. On the contrary, in every legislative attempt of the Society, a great effort has been made to preserve all the *existing* privileges of the chemists and druggists, and there is very little doubt that the Society would always deem the system of prescribing over the counter, at least, to be an "existing" privilege. While, therefore, the chemists and druggists are already encroaching very materially and very injuriously upon the field of medical practice, and while the Profession itself is weakened by opposition from without, and by dissension from within, we cannot but rejoice, that the attempt to make the Pharmaceutical Society alone the depositary of enormous legal powers, has been defeated. While making these remarks, however, we wish to be distinctly understood as offering no objection to the due establishment of the rights and privileges of the chemists and druggists, *when the rights and privileges of the Medical Profession are also established.* If the Pharmaceutical Bill had passed, the chemist and druggist would have become a far more important person than the Practitioner of Medicine, and the Pharmaceutical Society in Bloomsbury-square a more awful tribunal of justice than all the medical and surgical colleges in the kingdom.

But, while thus expressing our satisfaction that the enormous powers sought by the Pharmaceutical Society have not been granted, and that this Incorporation remains as before, only a voluntary Association, we cannot withhold our meed of approbation from the exertions which are now being made by the Society to elevate the status of their members, and to promote among them the cultivation, not only of pharmacy, but also of general literature and science.

By a recent by-law passed by the Society, all chemists and druggists who commenced business on their own account previous to the 30th of June, 1852, will be admitted until the month of May, 1853, *without examination*, as "Chemists and Druggists, certified to be duly qualified as members of the Society;" but after that date, they will be admitted *only after examination.* To this wholesale admission of members, whose only qualifications consist in keeping a shop and in paying one or two guineas to the Society, we do not object, and, under present circumstances, we do not see that any other plan could be well pursued; at the same time, it is only just that the public should be informed, that the showy certificate exhibited in the druggists' shops, and which is really a tasteful and well-devised document, is not by any means a test of proficiency in science, but merely an evidence of a pecuniary payment having been made by the holder. In after years, the certificate will confer some credit on the possessor, inasmuch as it will be gained *after* examination; and there is no doubt that if the Pharmaceutical Society pursue a

straightforward course, encourage education, and carry out their system of examination, they will materially advance, not only the social status of their members, but the science of pharmacy in general.

In some very excellent remarks made to apprentices and students in the last number of the *Pharmaceutical Journal*, some wholesome advice is offered by the writer, which would not by any means be inapplicable to the alumni of our Profession. The youths who are entering upon the business of chemists and druggists are recommended to apply their classical knowledge to their pharmaceutical pursuits, to read and translate the Latin pharmacopœia, and to devote some of their leisure time to the study of Virgil, Horace, or Ovid, together with the rules of arithmetic. Then they are recommended to study practical chemistry; and the means of doing so, the apparatus to be employed, and the books to be consulted, are pointed out. Botany is to be studied in the open country, and thus instruction is to be blended with amusement. After the elements of chemistry and botany have been acquired, Materia Medica presents but little difficulty, and an adequate collection of specimens may be brought together from the drawers and shelves in their masters' shops.

We are too much attached to the interests of science and to the cause of general education not to express our warmest concurrence in these admirable suggestions; and we repeat, that they are not by any means inapplicable to the youth of our own Profession. At a period when the faculties of the mind are expanding into maturity, there are many worse methods of passing the time than in the study of the Roman poets of the Augustan age, and in the calculations of arithmetic; and an early acquaintance with the manipulations of chemistry and the operations of pharmacy, varied by the pursuit of botanical science in the gardens and the fields, will not injure any young man destined for the Medical Profession. On the contrary, whether he is to dispense medicines behind a counter, or occupy the most lofty position in the Profession, the reminiscence of time so spent will linger in his memory long after the season of youth has passed away, and will make him a better practitioner and a happier man.

FRUITS OF SOLITARY CONFINEMENT.

From time to time we have raised our voice against the punishment of criminals by solitary confinement. No long time since, the Registrar-General recorded the death of "a printer, aged twenty-one years, who had died of 'catalepsy.' Mr. Bowring, the District Registrar, stated, that 'deceased was brought in from the House of Correction on 26th November last, on which day his term of fourteen days' solitary confinement expired. When received into the workhouse, *his appearance was that of a statue.*'"

During the present week, an inquest has been held at the Milbank Penitentiary, on the body of an unfortunate prisoner who had been submitted to this inhuman trial of mental endurance, and whose mind gave way under it. The opinions expressed before the Coroner, by Dr. Baly, the Physician, and Captain Groves, the Governor of the Prison, fully confirm the views we have on previous occasions expressed on this subject.

The convict was only nineteen years of age. He was received into Milbank Prison on the 25th of last August, and had been in separate confinement three months and thirteen days, and in the infirmary one month. After his return from the infirmary, he was in charge of one of the warders, who gave him, on the day of his death, a shaving-box, brush, and razor, and shortly after found him lying on the floor of his cell with his throat cut and the razor lying by his side.

Dr. Baly observed in his evidence, that the system of solitary confinement had "greatly aggravated the diseases of prisoners," and added, that, a few days preceding the inquest, he had been obliged "to recommend that a number should be placed in association." Captain Groves, the Governor of the prison, said he had no doubt that "separate confinement, even in its mitigated form, affected both the minds and bodies of the prisoners," and that he came to that conclusion from a mass of observations which he had made from time to time, and from the statistics of the prison.

The verdict of the jury was, "That the deceased destroyed his own life by cutting his throat with a razor, he being at the time in a state of *temporary insanity, brought on by separate confinement.*"

Here is the conclusion of twelve men, founded on evidence afforded them by one of the most experienced and philosophical Physicians in the metropolis, and by the Governor of a prison in which the system is carried out in its mitigated form. The evidence given by these gentlemen deserves the serious consideration, not of a coroner's jury alone,—not of the members of our own Profession only, to whom the subject is scientifically interesting,—but of those who have the power to modify or abolish the system, and so to remove the evil.

To the yells of pseudo-philanthropists and stump-orators, Secretaries of State and Inspectors of prisons may be pardoned for turning a deaf ear: but when men whose experience of the system has extended over years, and whose scientific knowledge is exactly of that kind which fits them to profit by their experience,—who have no object to serve by pointing out the evils of the system,—who quietly watch its workings, and only speak out when justice compels them, then is a Secretary of State who neglects to interfere, not only guilty of a gross neglect of duty, but, from the nature of the case, morally guilty of every death that ensues from the carrying out of the system, and for that worse than physical death, the death of the reasonable man, while his body yet lives, and moves, and has its being.

Insanity and suicide!—these are the fruits of the workings of the mitigated system of solitary confinement, even in a prison of which Dr. Baly is physician, and Captain Groves governor.

RUMOURS FROM ST. THOMAS'S.

Strange and astounding are the legends and rumours that ooze out from the closely-guarded Hall and Committee-room of St. Thomas's Hospital. One day, it is handed from mouth to mouth, that the number of out-patients annually attended to and cured amounts to 60,000. Then it is rumoured, that considerable improvements are in contemplation by the Almoners, especially in their department, and the Surgical Staff is diminished by one. Soon it is whispered that the same Sub-Committee of the Grand Committee of the Governors, who thus represent the concentrated wisdom of the Court, are anxiously endeavouring to improve and consolidate the Medical School. This also is accomplished—by getting up a contest among colleagues for a senior office, as of course amiability and friendliness must be generated by opposing interests (?) No sooner has the excitement subsided than "hundred tongued rumour" is again busy, and dashing out in haste from the ancient hall, divides itself into myriads of little rumours against the iron railings in Wellington-street, and says that wisdom is again hatching. Every little rumour tells a different tale. Some

say the number of out-patients is too many and the work too hard for the Assistant Staff. Some that the Staff is to be doubled. Some, that as patients are known to come from even distant counties for advice, the whole Profession is to be ransacked for the best and most talented to be induced to take the vacant office, in fact, every possible step has some little rumour to announce it. At last, with the close of the year, are found lying about on a Governor's table, the following masterstroke of profound sagacity:—

"Resolved,—That this Committee having received the Report of the Treasurer and Almoners upon the present vacancy in the office of Assistant-Physician, *and having duly considered the subject*, recommends the Court not to fill the vacant appointment."

And this Resolution was carried, it is true, but not unanimously, in a Special General Court, crowded to suffocation by the numerous attendance of—fourteen Governors.

Our friend Rumour, of course, is busy again, and even her friend Inquiry is somewhat "nonplussed," owing to the impenetrable mysteries with which that ancient Hall is guarded.

Can it be that the Treasurer and Almoners (Trustees, be it remembered, for about 32,000*l.* per annum of public money, and, therefore, responsible to the public for the step), imagine that 60,000 poor sufferers can be attended to by four as well as by six medical officers? or can it be that this number, stated on authority in public, was a false one, held out only as a snare and delusion to the uninitiated to cover things unseen?

It cannot be that the salary is an object, when double the amount is consumed annually in turtle and venison. Equally false *might* be the hint, that it is owing to a conviction that the uniform treatment of the Medical Staff by the Authorities has so shaken the confidence of the Profession, that they feel they have lost the chance of adequately supplying the vacancy. Rumour has whispered other things, but we will not; though when people lock their doors in open daytime, those outside sometimes fancy all is not as it should be within.

DRUGS,
THEIR
IMPURITIES AND ADULTERATIONS.

If the adulteration of articles of food, even with comparatively innocuous admixtures, be viewed as disgraceful, how much more so must be that of substances employed for the removal of disease. The physician or surgeon in attendance on a case which may end in death, relies on the medicines he prescribes, anticipating, from certain doses of these medicines, a proportionate effect; but if the drugs, or chemical preparations of which the medicine is composed, be rendered less powerful by the addition of some cheaper inert material; or, if the drugs themselves be of inferior quality, his expectation of their action will be necessarily disappointed; and, in some cases, the death of the patient may be fairly attributable to the guilty avarice or negligence of the parties by whom such drugs are supplied.

A duty—and an important duty—of the Censors of the College of Physicians is to visit periodically the shops of apothecaries and druggists, examine the drugs contained in these shops; and they are empowered by their charter, not only to do this, but also to order the confiscation and destruction of all drugs of inferior quality. This duty, like many others pertaining to medical institutions, has been long in abeyance,—so long, that an apothecary or druggist would evince great astonishment at the appearance of these gentlemen; and we very much doubt whether the Censors themselves possess the capability either of detecting adulterations, or of judging of the quality of the substances submitted to their inspection.

As there is no probability that the College of Physicians will revive their obsolete powers, and as it is well known that many drugs and chemical preparations are dispensed and sold in an impure or adulterated condition, we have determined to relieve the College of its duties, and enter on an extended investigation of the purity or impurity of the drugs sold in the shops of the metropolis. We are fully aware of the responsibility attached to this investigation, but we shall not shrink from it, and it is our intention to proceed with the greatest possible impartiality and without fear or favour. At the same time, every precaution will be taken that no one statement, in this or any of the succeeding papers, will be such as to be incapable of positive demonstration.

In cases of impurity or adulteration of drugs and chemical preparations, the fault may lie, especially in the former, with the producers in foreign countries: with the manufacturers in our own country, or with the retailers themselves. With the former we have nothing to do, but our business is to discover and distinguish how much is due to each, and comparative examinations of the crude and manufactured articles will enable us pretty clearly to distinguish the authors of the fraud. It is quite true that we shall obtain the specimens to be submitted to analysis from the retail dealers, and the gravamen of the charge will lie on them in the first instance, although the actual blame must in most cases be referred to the wholesale dealers and manufacturers, but still much blame is to be attached to the retail dealers, who arrogate to themselves the title of "chemists."

The pharmaciens of England will, after one or two generations, under the influence of the Pharmaceutical Society, attain to a far greater amount of knowledge of the sciences on which their business is based; but we have to do only with the present state of things; and we fear that we shall find some of the chief members of that Society among the vendors of impure or adulterated drugs.

The investigation on which we have now entered is based entirely on public grounds, and for the public benefit; we have no desire to find more impurities and adulterations than really exist, or to raise a cry against the druggists; but our real object and intention is, so to expose all such adulterations, as to compel, by the power of the Press and the force of public opinion, the tradesmen to supply good articles to medical practitioners and others, and at the same time to indicate the most simple and facile means for detection of impurities and adulterations.

Instead of acting an inimical part towards the vendors of drugs, we conceive that we shall render them an essential service; for we shall place them in a position to ascertain the value of medicinal preparations; and it will be their own fault if, after that time, impure articles be found in their shops. The process through which they attain to this knowledge may not be the most agreeable, although it will prove, in the event, not the least useful to them.

The plan adopted, not without considerable reflection, in the following papers, will be, to select certain substances in succession for examination and analysis; to give a brief account of their physical, chemical, and microscopic characters; their mode of preparation, and, as far as possible, the errors in manufacture which produce the impurities discovered by analysis. In the case of chemical substances, the changes which occur in the process of production will be detailed, and illustrative wood engravings will be introduced, when necessary for the elucidation of the microscopic appearances of the pure and impure, the well or ill-prepared drugs and chemicals.

The description will be followed by a list of the specimens analysed or examined, where bought, and the purity or impurity of the article.

SULPHUR PRÆCIPITATUM.

This preparation of sulphur, commonly known as milk of sulphur, differs only from the ordinary sublimed sulphur in its extreme state of division, which renders it easily miscible with fluids, much more agreeable to the palate, and milder in its operation than the sublimed sulphur, for which it is very commonly substituted both in and out of the profession. When well prepared and pure, the precipitated sul-

phur is a fine, almost impalpable powder, of a greyish-white colour, with a slight tinge of yellowish green. When heated to 212° for some time, it usually loses a small proportion of water—too small, however, to indicate any true combination as a hydrate. At a higher temperature, it melts, burns like ordinary sulphur, and leaves scarcely a trace of solid residue when well prepared and pure. The water disengaged from it by gentle heat varies considerably in different specimens, and is evidently hygroscopic. In some specimens we have found scarcely a trace, in others it has amounted to several parts in the hundred, according as the specimen subjected to examination had been placed in a dry or damp situation.

Precipitated sulphur is prepared by boiling together either lime or a caustic alkali and sublimed sulphur, in a considerable quantity of water, then precipitating by an acid, washing, and finally drying the precipitate. The London Pharmacopœia (1824) directs that a pound of sulphur be boiled in four gallons of water; the liquid filtered through paper; a sufficient quantity of hydrochloric acid added to precipitate the sulphur, and the precipitate washed by repeated affusions of water until it becomes tasteless. The subsequent editions of the Pharmacopœia contain no directions for this preparation;—the College of Physicians having been compelled to abandon it on account of the constant impurity of that found in the shops.

The theory of this process is far from satisfactory. It is sufficiently evident, that when sulphur and a strong base, which is capable of yielding a soluble sulphuret, are boiled together in water, two substances are formed, a sulphuret of the base, with two or more equivalents of sulphur, and hyposulphurous acid, which also combines with the base. When hydrochloric acid is added, the sulphuret of calcium and hyposulphite of lime are both decomposed with the production of water, chloride of calcium, and sulphur, which, being liberated from a very dilute solution, has not the opportunity of aggregating, but falls as a minutely-divided precipitate. In fact, the success of the process, and the excellence of the product mainly depend on the dilution of the solution. We have several times performed the process according to the strict letter of the Pharmacopœial directions, and obtained a very indifferent product, in consequence of an insufficient quantity of water having been employed. And we suspect that the manufacturer is much more liberal in diluting the liquid, in order to obtain a good preparation.

In Dr. Pereira's excellent and elaborate "Materia Medica," the following formula is given as expressing the chemical changes which occur in the process. He supposes that:—

$$13\,CaO + 12\,S = 2\,(5\,CaO,\ CaS_5) + CaO,\ S_2O_2 \text{ or,}$$
$$13\,CaO + 12\,S + 2\,HO = 2\,(6\,CaO,\ HS_5) + CaO,\ S_2O^2$$

And that when these compounds are decomposed by hydrochloric acid:—

$$2\,(5\,CaO,\ CaS_5) + CaO,\ SO_2 + 13\,HCl = 13\,HO + 13\,CaCl + 12\,S, \text{ or,}$$
$$2\,(6\,CaO,\ HS_5) + CaO,\ S_2O_2 = 13\,HCl = 13\,HO + 13\,CaCl + 12\,S + 2\,HO.$$

Either of these explanations of the chemical changes is open to objections of considerable weight. In the first place, we know not on what evidence a combination of ten equivalents of lime with two equivalents of penta-sulphuret of calcium is established; and, in the second, no account of the escape of sulphuretted hydrogen is rendered, which certainly occurs to a more or less considerable extent when the acid is added. Again, on the second hypothesis, a still more improbable compound of twelve equivalents of lime, with two equivalents of a penta-sulphuretted hydrogen, is stated to exist in the fluid before the addition of the acid. Moreover, the penta-sulphuret of calcium, or the penta-sulphuretted hydrogen, must possess, according to this view, the power of dissolving five times its proportionate weight of caustic lime. We are not aware of the existence of any direct analytical experiments in support of this theory of the process; and we conclude, that it is purely hypothetical, and based on a loose analogy, with the property possessed by the sesqui-sulphuret of potassium, of dissolving sesqui-sulphuret of antimony in the preparation of kermes and the golden sulphuret.

Although it is impossible to reduce the changes occurring in this process to a distinct formula in the present state of our knowledge, it is sufficiently evident that a part of the lime is decomposed, that its calcium combines with several equivalents of sulphur to form a persulphuret of calcium, while the oxygen liberated from the lime combines with sulphur to form hyposulphurous acid, which combines with undecomposed lime. When the hydrochloric acid is added, its chlorine combines with the calcium of the persulphuret, forming chloride of calcium, and letting fall the sulphur; the hyposulphite is also decomposed, yielding chloride of calcium, water, and sulphur; and at the same time some sulphuretted hydrogen is disengaged.

Berzelius states that when sulphur in excess is boiled with a solution of caustic potass, persulphuret of potassium (KS_5) is produced; three-fourths of the potass being converted into persulphuret, and one-fourth combining with a quantity of hypo-sulphurous acid, which contains three times as much oxygen as the alkali. The persulphuret obtained by fusion of carbonate of potass with sulphur contains, according to the same celebrated chemist, not hyposulphite but sulphate of potass, and, when acted on by an acid, sulphuretted hydrogen is disengaged, sulphur falls as a precipitate, and the sulphate of potass, together with a salt of potass produced by combination with the acid employed, remains in the solution.

The most frequent and important impurity found in the precipitated sulphur of commerce is sulphate of lime, which usually constitutes about 50 per cent., or one-half of the impure preparation. This impurity is produced by the substitution of sulphuric for hydrochloric acid in the process. The impurity, and its source, were long ago pointed out by Dr. Pereira, and figures even of the microscopic characters of pure and impure precipitated sulphur are given in his work on Materia Medica. It was this almost constant impurity that caused the rejection of the precipitated sulphur from the two last editions of the "London Pharmacopœia." This impurity may be easily detected by heating the precipitated sulphur to redness in a porcelain capsule or on a piece of glass, or even more rudely, by simply throwing it on a red-hot coal, when the sulphur is burned off, and a quantity of white ash remains, consisting of sulphate of lime; or, still more readily, by placing a minute portion of the suspected specimen in a drop of water, under a microscope of very moderate power, when the minute tabular and prismatic crystals of sulphate of lime are immediately seen, as in *Fig.* 2. The manufacturers are not, however, the only blamable parties in this fraud on the public, as we see two prices marked in the price-catalogues for the same article, so widely different, that any retail chemist must at once see that the cheaper article is adulterated. Thus, in Baiss Brothers and Co.'s price-lists, we find "Sulphur præcip., 38s., per lb. 4½d.; P. L. 10d." Here the pure article is more than double the impure in cost, and the retail dealer has a choice between the two. We believe that sulphate of lime is the only impurity usually found in precipitated sulphur of English manufacture, because sulphuric acid is the cheapest precipitant, and this acid is generally prepared from Sicilian sulphur, which is free from arsenic and other metals that yield sulphurets volatile at the temperature used in subliming sulphur.

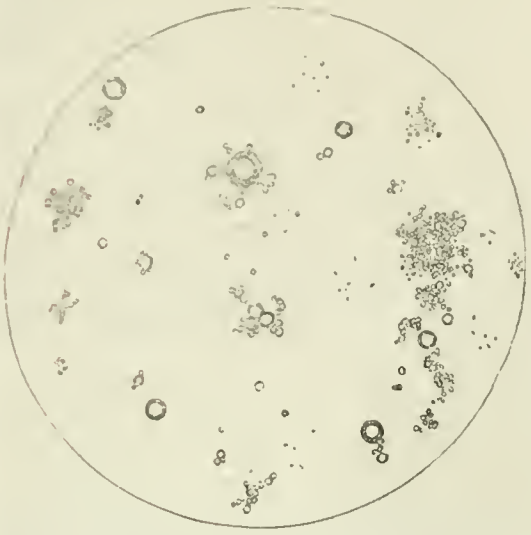
Geiger(a) mentions alumina as one of the impurities of precipitated sulphur, resulting from the employment of a solution of alum as the precipitant instead of one of the acids. In this case the preparation would contain alumina and sulphate of lime. We have not met with any instance of the occurrence of alumina in the specimens we have analysed. The same author mentions falsifications of precipitated sulphur with chalk and magnesia. Precipitated sulphur may also contain minute portions of arsenic; but this can only occur in England, when the price of Sicilian sulphur rises to such an extent as to render the extraction of sulphur from iron pyrites profitable. The pyrites not unfrequently contains sulphuret of arsenic, which is consequently present in the sulphur obtained from this source, and in this way arsenic sometimes finds its way into all the preparations of sulphur.

The pure and impure specimens of precipitated sulphur may be distinguished almost with certainty by a practised eye; the impure is whiter, with a slight yellowish tinge, and when pressed presents a silky, somewhat glistening appearance, while the pure specimen has a dead yellower colour; the impure readily mixes with water, while the pure specimen is diffused with some difficulty. By the microscope, even with a low power, the crystals of sulphate

(a) Handbuch der Pharmacie, I. p. 256, 1833.

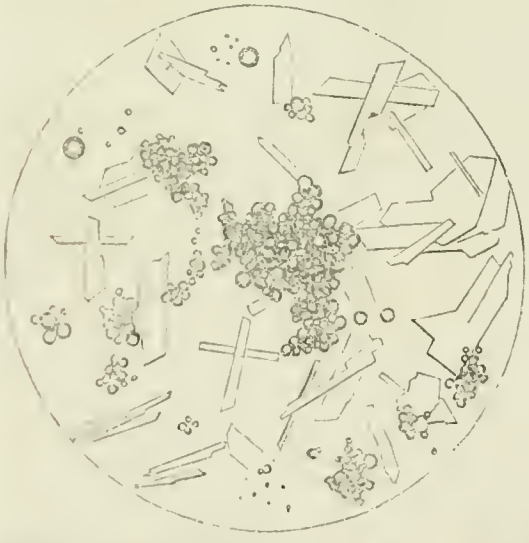
of lime are at once seen forming a very large proportion of the whole. This is well represented in Figure 2.

Fig. 1.



Pure sulphur præcipitatum, as viewed by the microscope with a magnifying power of 400 diameters, and drawn by the camera lucida. The largest of the globules measure $\frac{1}{1000}$ of an inch, the smallest $\frac{1}{12000}$, and all intermediate sizes are found between these extremes.

Fig. 2.



Impure sulphur præcipitatum contaminated with about 50 per cent. of sulphate of lime. The sulphur-globules are generally smaller than in the pure preparation, but in other respects similar. The crystals of sulphate of lime are either thin tables of somewhat irregular shape, or flattened elongated prisms, and occupy the greater part of the field of the microscope. Magnified 400 diameters, and drawn by the camera lucida.

The method of analysis employed in the following examinations of specimens obtained from the retail druggists, has been, first, to expose the precipitated sulphur to a heat of 212° in a regulated oil bath, until the aqueous vapour ceased to render a piece of plate glass dim by its condensation; then to burn off the sulphur at a red heat, when the residue, if any, was weighed, and the proportion of impurity determined.

Analysis 1.

A specimen prepared by boiling sulphur with liquor potassæ, diluting freely with water, and precipitating with dilute sulphuric acid, washing and drying by gentle heat, yielded no water when kept at 212° Fahr. for some time; and burned off, left a residue not exceeding 1 per cent.

Analysis 2.

A specimen prepared by boiling lime with sulphur and water in the proportions directed by the Pharmacopœia, but substituting sulphuric for hydrochloric acid, washing and drying, yielded—

Water	0·56
Sulphur	54·55
Sulphate of lime	44·89
	100·00

Analysis 3.

Bought at Apothecaries' Hall:—

Water	1·48
Sulphur	50·50
Sulphate of lime	48·02
	100·00

Analysis 4.

Bought of Butler and Harding, Cheapside:—

Water	2·04
Sulphur	46·43
Sulphate of Lime	51·53
	100·00

Analysis 5.

Bought of Chase, 14, Holborn:—

Water	2·04
Sulphur	45·45
Sulphate of Lime	52·51
	100·00

Analysis 6.

Bought of Hay, Parliament-street:—

Water	Traces.
Sulphur	48·47
Sulphate of Lime	51·53
	100·00

Analysis 7.

Bought of Edwards, 63, Great Russell-street:—
Absolutely pure; lost no weight by drying at 212°; left an inappreciable residue after the sulphur was burned off.

Analysis 8.

Bought of Corbyn, Holborn:—
Pure.

Analysis 9.

Bought of Palmer, Newgate-street:—
Pure.

Analysis 10.

Bought of Willmott, Borough:—
Pure.

Analysis 11.

Bought of Lamplough, 88, Snow-hill:—

Water	4.50
Sulphur	65·00
Sulphate of Lime	30·50
	100·00

Analysis 12.

Bought of Davenport, 33, Great Russell-street:—

Water	Traces.
Sulphur	47·78
Sulphate of Lime	52·22
	100·00

Analysis 13.

Bought of Allen, Plough-court, Lombard-street:—
Pure.

Analysis 14.

Bought of R. and Z. Fincham, 57, Baker-street, Portman-square:—
Pure.

Analysis 15.

Bought of Goodyer, Regent-street:—

Water	traces.
Sulphur	51·89
Sulphate of Lime	48·11
	100·00

Analysis 16.

Bought of Jacob Bell, Oxford-street :—
Pure.

Analysis 17.

Bought of Waugh, Regent-street :—
Pure.

Analysis 18.

Bought of Hannay, Oxford-street :—

Water	1·52
Sulphur	47·97
Sulphate of Lime	50·51
	100·00

Analysis 19.

Bought of Pritchard, Charing-cross :—
Pure.

Analysis 20.

Bought of Browne, Titchborne-street :—

Water	traces.
Sulphur	51·02
Sulphate of Lime	48·98
	100·00

Analysis 21.

Bought of Willcox, Oxford-street :—

Water	traces.
Sulphur	49·75
Sulphate of Lime	50·25
	100·00

Analysis 22.

Bought of Hooper, Pall-mall :—
Pure.

Analysis 23.

Bought of J. Freeman, 13, Blackfriars-road :—

Water	traces.
Sulphur	50·48
Sulphate of Lime	49·52
	100·00

It will be seen, by reference to the results of these analytical examinations of precipitated sulphur, that eleven out of twenty-one samples, obtained, for the most part, from the largest and most respectable shops, are sophisticated with about 50 per cent. of sulphate of lime, by an error in the process of preparation. Had we extended our examinations to the same substance obtained from the smaller shops, it is probable that a much larger proportion of the specimens would have been found sophisticated.

We have found, in repeating the analyses of several specimens, that somewhat different proportions of sulphate of lime and sulphur have been obtained from different parts of the same sample, which shows that the sulphate of lime and sulphur are not quite equally mixed, and we could not, for this reason, guarantee that any second analysis would present exactly the same results, but the variation would be small. We shall probably recur to this preparation after some interval, and we hope that, having placed druggists and manufacturers on their guard, we shall find that the sale of the impure article has been abandoned.

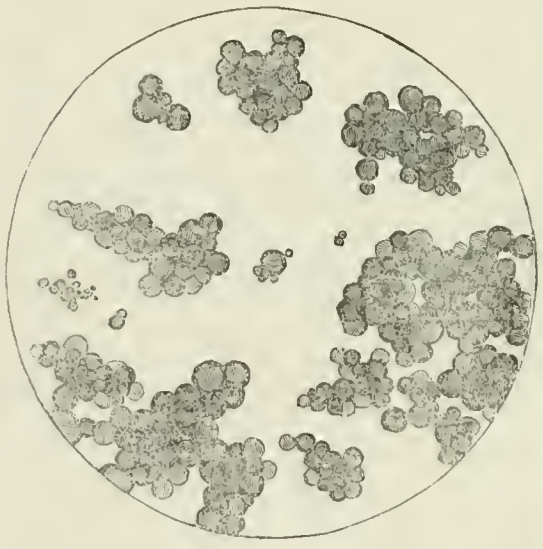
SULPHUR SUBLIMATUM.

When sulphur is heated in a retort connected with an ordinary receiver of moderate dimensions, it rises in vapour or sublimes, and the heat of the vapour suffices to produce a melted product, which, after being cast into moulds, is the ordinary roll-sulphur of commerce. But when, instead of collecting the sublimate in a confined space, the vapour of sulphur is admitted into a large chamber, so as to mix freely with atmospheric air, it condenses into minute globular masses, more or less aggregated, and forms a rough gritty powder, the sulphur sublimatum, or flowers of sulphur, of the pharmacopœias. This powder is of a bright yellow colour, having the odour and flavour of sulphur. Sublimed sulphur, when examined by the microscope, is seen to consist of minute globules, more or less fused together, and forming masses with irregularly circular edges, indicating the original condensation of the vapour into minute drops. The globules themselves vary in diameter from $\frac{1}{617}$ to $\frac{1}{2400}$ of an inch in diameter, but the masses formed by their agglomeration are much larger, and, as stated by Dr. Christison, measure from $\frac{1}{80}$ to $\frac{1}{200}$ of an inch. Detached and isolated globules of all the intermediate diameters between the extremes we have stated are seen in the field of the microscope. These globules refract light so powerfully as to be nearly or wholly opaque, except the more minute, which, as in the case of precipitated sulphur, bear a strong resemblance to minute oil-drops, and have a yellow tinge. The greater part, however, are quite opaque, with a slight translucency at their edges.

During the condensation of the vapour of sulphur in free admixture with atmospheric air, a small portion is oxidised and converted into sulphuric acid, which gives an acid re-action to the product. To remove the acid, the Pharmacopœia directs that the sublimed sulphur be repeatedly washed with hot water, until the water ceases to have an acid taste. This seems to be an unnecessary refinement, since the quantity of sulphuric acid contained in a dose of sublimed sulphur is so small as to produce no appreciable effect.

In England, the sulphur is obtained from the volcanic sulphur of Sicily, which is free from arsenic; but, on some parts of the Continent, it is obtained by the distillation of iron pyrites (bisulphuret of iron) at a high temperature. The pyrites often contains sulphuret of arsenic, and the product is therefore occasionally contaminated with that metal. This only occurs in English sulphur when the price of Sicilian sulphur rises to such an extent as to render it profitable to extract the sulphur from pyrites, which is rarely the case.

Fig. 3.



Sublimed sulphur, magnified 195 diameters, and drawn by the camera lucida.

SULPHUR SUBLIMATUM.

Analysis 1.

Bought of the Apothecaries' Company :—
Pure.—Left an almost inappreciable residue after burning off the sulphur; a slight acid re-action.

Analysis 2.

Bought of Waugh, Regent-street :—
Pure.—An inappreciable residue after the application of heat; a slight acid re-action.

Analysis 3.

Bought of Goodyer, Regent-street :—
Pure.—An inappreciable blackish residue; no acid re-action.

Analysis 4.

Bought of Willmott, Borough :—
Pure.—Rather strong acid re-action.

Analysis 5.

Bought of Freeman, 13, Blackfriars-road :—
Pure.—With a rather strong acid re-action.

Analysis 6.

Bought of Lowe and Hornblower, 47, Blackfriars-road :—
Pure.—With an acid re-action.

Analysis 7.

Bought of T. Kent, 226, Blackfriars-road :—
Pure.—With a slight acid re-action.

These analyses suffice to prove that the sublimed sulphur is rarely, if ever, adulterated, and that what is generally sold in the druggists' shops is free from adulteration.

PROGRESS OF MEDICAL SCIENCE.

SELECTIONS FROM FOREIGN JOURNALS.

ON THE DIFFERENT FORMS OF INFLAMMATION IN JOINTS.

By Dr. F. Führer.

In every form of inflammation occurring in a joint, it is found that all the structures appertaining thereto are more or less affected. It follows, therefore, that we must determine in every case the peculiar character of the inflammation, and ascertain by the symptoms the order in which the different structures become involved. For example, that inflammation which commences in the capsule of the joint, accompanied by exudation from the synovial membrane, throughout of destructive character, is different from that which begins in the bones, filling the spongy texture with exudation, breaking through the cartilages, and then exciting acute inflammation and disorganisation of the serous cavity. If we take the three structures of joints which most readily offer themselves to notice, namely, the synovial membrane, the cartilaginous covering, and the articular extremity of the bones, we find the basis for an anatomical classification of the different forms of inflammation. As primary affections of the capsule and articular cartilages may be enumerated: traumatic inflammation; rheumatic, gouty, and fungous inflammation; acute empyema. As affections originating in the bones: arthritic and tuberculous inflammation. In the acute form of rheumatic inflammation there is rapid formation of pus, plastic exudation upon a red and injected synovial membrane, softening of the capsule, with rupture, and infiltration of pus among the muscles under the fasciæ. In the chronic form the important character consists in its being connected with necrosis of the bones. Fistulous communications opening externally exist. When the joint is opened there is found a discoloured greyish, or bloody pus, the inner surface of the capsule being of blackish-green hue, and covered with exudation. The ligaments are destroyed, and the bones are discoloured, eroded, and often broken. There is pulpy thickening of the fibrous capsule, and infiltration of the neighbouring parts. The periosteum is thickened, and more firmly adherent than natural. In spite of the disorganisation, the articular cartilages often adhere with great firmness to the surface of the bones. *Arthritic Inflammation* is characterised by exudation into the spongy substance of the bones, loosening of their texture, and mollities. In the second stage there are infiltration of fat and abnormal ossifications. In the third stage there are atrophy and alteration in the form of the bones. In the acute form the spongy substance is swollen, and full of blood; the medullary cavity is filled with a jelly-like exudation; the walls of the bone are thinned, so as to be readily cut with a knife. The cartilage is thinned and easily peeled off; the synovial membrane is white, shining, and thickened, and seems as if the secreting property were lost; the cavity of the joint is filled with a thin brownish-red ichorous fluid, which not uncommonly flows externally through fistulous passages. The chronic form, *arthritis chronica sicca*, is much more common. There is loosening of the tissues at the extremity of the bones, infiltration of the spongy substance with an oily fluid, and subsequently a deposition of yellow fat; the cartilage is occasionally hypertrophied; in other cases it becomes thinner and sieve-like; the bones may be completely denuded, except when a false membrane remedies the deficiency; there is no effusion into the cavity of the joint; pendulous masses of fat project from the serous membrane; depositions of bone are found in the neighbouring structures, tendons, ligaments, etc.; the periosteum takes on similar action, which leads to the development of osteophytes. The peculiar substances called corpuscula mobilia are formed from fibrous thickening of the synovial membrane, ossification, and subsequent separation from fracture or division of the pedicle. *Malum coxæ senile* is a stage of the preceding disease. There is erosion of the articular cavity, the bones are denuded of cartilage, and the surface often of ivory hardness; the synovial membrane is dry, so that in forcible flexion there is sometimes a cracking sound. The head of the femur may become so small, and the acetabulum so shallow, that subluxation may ensue; corpuscula mobilia are found in the joint, and the tendency to ossification extends to the surrounding muscles.

In *gouty inflammation* there is most probably an acute and chronic form; the usual gouty depositions of earthy matter are observed, but the tissues do not seem to undergo the same amount of disorganization as in the preceding.

Fungous inflammation occurs chiefly in the knee, the hand, and the foot, and pursues a chronic, painless course. The synovial membrane and the articular cartilage are thickly studded with greyish red soft granulations, which make their way externally, and lead to the formation of fistulous passages. The surrounding structures are infiltrated. The granulations form, in cases of recovery, a false membrane, which covers the ends of the bones as cartilage.

In *tuberculous inflammation*, the cartilage adheres a long time, but is thinned and perforated, and the perforations lead through fistulous passages into abscesses of the bone. Pus makes its way into the joint, which then loses its cartilage.

Acute empyema of a joint occurs in puerperal diseases, in the desquamation period of scarlet fever, after typhus.—*Virchow's Archiv. für pathologische Anatomie und Physiologie, Fünfter Bandes Erstes Heft.*

Bereys relates the case (*Revue de Malgaigne*, Fev. 1852) of a man in whom a bullet lodged in the trachea for forty days. Soon after the accident difficulty of respiration came on, with cough, and the patient became rapidly thinner; the foreign body was suddenly expelled in a violent convulsive action of the chest, the patient's body being inclined downwards.

J. Azam, of Bordeaux, enumerates the following as indications for tracheotomy:—1. Foreign bodies in the trachea. 2. Foreign bodies in the œsophagus. 3. Swelling within and without the trachea. 4. Wounds of the neck, with swelling of the neighbouring parts. 5. Polypi, cancers of the fauces. 6. Acute and chronic laryngitis. 7. Œdema glottidis. 8. Croupy inflammation of the larynx.—*Vierteljahrschrift für die praktische Heilkunde*, 9 Jahrgang, 1852.

GENERAL CORRESPONDENCE.

THE EXTRA-LICENTIATES OF THE ROYAL COLLEGE OF PHYSICIANS.

[To the Editor of the Medical Times and Gazette.]

Sir,—My attention has just been directed to a letter of Dr. Laycock, of York, in your Journal of Dec. 11, in answer to some of your remarks respecting the examination for the extra licence at the London College of Physicians; and, as this letter is full of error, (unintentional I am sure,) I trust you will allow me a few words in reply.

Dr. Laycock states, that the only legally-qualified physicians out of London are the licentiates and extra-licentiates of the London College of Physicians. But Dr. Laycock forgets entirely the legal right which the Apothecaries' Company gives to practise medicine; and any member of this Company, in York or elsewhere, may not only write prescriptions and practise as a physician, but he may, if he can get it, take double the fee that the doctor is accustomed to pocket. There is no law to prevent his doing so. It is true that the people of this country are so ignorant of medical affairs, that they suppose that no man can be a physician who does not belong to a College of Physicians. I am more surprised, however, at the statement of Dr. Laycock, that "the extra-licentiates now undergo the same examination as the licentiates." The fact is, Sir, the former are examined by the censors; the latter by the elects; and, although the written questions are now the same, it must be apparent to all, that the questions have little to do with the result of the examination.

But let me give the Doctor a practical illustration. The night I had the honour of being rejected at the London College of Physicians, a young gentleman, who had just passed for the extra-licence, was in my presence congratulated by an elect, one of his examiners, on the excellent examination he had undergone. But this gentleman, before several of us, stated, that when asked "the dose of liquor arsenicalis," he replied, "Twenty drops three times daily,"—an answer that would probably have insured his rejection at the Apothecaries' Company. His name is not known, and therefore the statement cannot injure him in any way; the communication, too, was publicly made. The subject, however, is so grave and important, and bears so much upon the question at issue, that I am not sure that, under any circumstances, I should be justified in suppressing it, especially at a crisis like the present.

But let not the extra-licentiates, Sir, fear a comparison with the licentiates. Look to the evidence before the Parliamentary Committee, 1834. Sir James Clarke (Q. 3614) stated, "His examination at the London College of Physicians lasted considerably less than half-an hour," and "that it was no test as to his fitness to practise medicine."

Dr. James Johnson said, "His three examinations did not last twenty-eight minutes, and that they were no test at all;" that the examination at the Naval Board was a better examination.

Dr. Neil Arnot gave evidence nearly to the same effect.

If you publish this letter, I am sure that your sense of justice will not permit an anonymous reply. I am, &c.

21, Parliament-street. EDWARDS CRISP, M.D.

"LICENTIATES IN MIDWIFERY."

[To the Editor of the Medical Times and Gazette.]

SIR,—The scheme lately put forth by the Royal College of Surgeons for the institution of a new order of practitioners, under the denomination of "Licentiates in Midwifery," has struck me with indignation and alarm; alarm at the proposal of giving a legal title to practise in any part of the Profession, to men who, from the scanty curriculum to be observed by the candidates, must possess a comparatively slender degree of information, and indignation at the degradation which the attempt to sever the obstetric branch of medicine and surgery from the general practice of the Profession will entail on that particular department.

You have yourself very forcibly called the attention of the medical public to the certainty of these licentiates in midwifery eventually supplanting the general practitioner in all the medical offices that now devolve upon him. I presume all will agree that this new class of *quasi* medical men will rise from an order of society inferior to that which now supplies the College and Hall with their members; and as their anticipations and desires will be more humble, their education less expensive, and the time allotted for their pupilage shorter, they will be content with smaller fees than would remunerate the gentleman who is required to possess extensive classical and mathematical as well as medical and surgical knowledge.

It is universally conceded, that the chief stepping-stone to general practice, among the less affluent at any rate, is attendance on cases of labour; nor can we wonder at that. If a woman has recovered satisfactorily after her confinement, and her infant is taken ill, to whom is it so natural that she should apply as to the person who assisted at its birth? When another child requires medical attendance, the same advice is sought. Both she and her husband send for him when they require "a little physic;" and thus that individual is established as the regular "doctor" of the family. Are the English laws regarding unqualified practitioners so stringent that they will prevent the "licentiates in midwifery of the Royal College of Surgeons" acting as the general medical attendant in such cases? And if that be not so, will not this new order in a very short time shoulder their rivals, the apothecaries, off their perch, and monopolise four-fifths of the medical attendance of the country? No one can be surprised that you have received, as you say, many letters of remonstrance on the subject; and, if the members of the Profession are true to their own interests, meetings will be held in every town in the kingdom to discuss the question in all its bearings, and to memorialise the Royal College of Surgeons on their preposterous scheme; for they may rest assured, should it be carried into effect, their already pitiful remuneration will be considerably curtailed, even if their occupation be not altogether gone.

But apart from the injury that this alteration must do the general practitioner, there is another powerful objection to its enforcement in the obnoxious distinction which it makes between the obstetric and the other departments of medicine. It will beget in the minds of the public a feeling that "midwifery," as it is termed, is a science distinct from medicine; that less general knowledge, and a degree of medical acquirements inferior to that possessed by the surgeon is all-sufficient for its safe practice; and that with all the dangers and difficulties that beset it, it may nevertheless be committed to the superintendence of an inferior class of practitioners.

That this is a false assumption, every one who has studied the principles of obstetrics in the closet, or the application of those principles at the bedside, must acknowledge; for in no part of medicine or surgery is greater skill, energy, promptitude, and scientific information required than in some of the casualties that come under the notice of the obstetric practitioner. It would be idle to argue this point, when, besides the question of instrumental aid, including the possibility of saving, or the necesaity for destroying the fœtus, the subjects that crowd upon the mind embrace hæmorrhage, convulsions, rupture of the uterus, and a host of other accidents of the most appalling and perilous character.

To entrust such a class of cases to the management of a partially-educated person, would be to endanger the well-being of society. It is bad enough to be obliged to employ women in the duties connected with ordinary labour; but in the country, as well as in charitable institutions, this is perhaps unavoidable. Besides, when anything unusual or dangerous occurs, they seek the assistance of an educated surgeon—refraining, for the most part, from personal interference. Very different, however, will it be with the licentiate in midwifery. Armed with his legal qualification, he will himself undertake the management of all cases, however serious; and, with the information derived from *one course* of obstetric lectures, and attendance on *twenty* cases of labour, with what result may easily be foreseen.

For these reasons I rejoice that you have already protested against any examination in "midwifery alone." The obstetric is not a separate science, but essentially a part of medicine and surgery; indeed, it is the chief link that binds these divisions together; and no one can practise obstetrics with safety, who, by reason of ignorance, is unqualified to act as a member of the general Profession. As well might examinations be held, and licence granted, for the treatment of calculous disorders alone, or for hernia, or any other case that may come under the care of both the physician and surgeon.

That every practitioner in obstetric surgery should give a proof by examination that he is qualified to undertake that, as well as the other departments, is too obvious to require substantiation by argument; but this test should be incorporated in the general examination, as is the case in all the continental, and almost every other university; and this could easily be accomplished by the Royal College of Surgeons, provided they would repeal their by-law, which excludes practitioners in midwifery from the Court of Examiners. A separate Board for this purpose would not then be necessary. That this must be the case eventually I am persuaded; and the sooner the change is perfected, the better will it be for themselves, the Profession, and the public. The Fellowship of the Royal College of Physicians, which gives a voice in the administration of its affairs, is now open to such members of their body as practise the obstetric department, and why not the Council of the College of Surgeons also? The time is gone by for them to shield themselves under the plea, that the obstetric is a subordinate branch of the Profession, though they appear to be actuated by that sentiment. Were the members of the Council practically acquainted with the irregularities and dangers that we not unfrequently meet with, they would acknowledge that even pure surgery itself is not more worthy of cultivation than its despised and neglected sister.

This is not the first time an attempt has been made to institute an order of "licentiates in midwifery." About the year 1785, the College of Physicians established a new class, under the title of "*permissi ad artem obstetriciam exercendam;*" but it never exceeded, as I believe, eight in number; it soon died away, and we hear nothing of it after the year 1809.

In this age of progress, indeed, we might have expected that the College of Surgeons would have exerted their influence to uphold the dignity of the Profession in all its integrity, and to enhance its usefulness in all its details; but the step they contemplate is lamentably retrograde, and cannot fail to lower the scale of qualification possessed by the great bulk of the Profession. I trust, therefore, you will not relinquish the subject until the project is abandoned, and am, &c. FRANCIS H. RAMSBOTHAM.

7, Portman-square.

THE NEW MIDWIFERY EXAMINATION OF THE ROYAL COLLEGE OF SURGEONS.

[To the Editor of the Medical Times and Gazette.]

Sir,—I am induced to trouble you with a few remarks respecting your recent strictures on the new midwifery examination, inasmuch as I think they are in a great measure unjust, especially your remarks on the improbability of the Examiners rejecting any candidate who has already been admitted a member. Now, from the high moral character of the Examiners, and the known conscientious regard they have for the welfare and safety of mothers under the perils of childbirth, I think it a reflection on them to insinuate that they would regard more the dignity of the College members, than the valuable lives which they would be the indirect means of sacrificing, were they to allow a set of men loose on society with their midwifery diploma who were ignorant of their profession in that department of science and art. I speak as one who has already attained the honourable distinction of Licentiate in Midwifery, of which I am justly proud; and I do affirm, most conscientiously, that the examination, as conducted, is a very fair test of a man's practical knowledge.

I perfectly agree with you, that none should be allowed to go up for examination for the honour who have not already a diploma from some recognised college or examining board in the United Kingdom. I think the College will see the propriety, if not the necessity, of making this rule absolute, so as not to create another distinct set of medical practitioners.

Your insertion of this will oblige, yours, &c.

George F. Brutton Willing, M.R.C.S. England, and Licentiate in Midwifery of the Royal College of Surgeons, etc.

Hampstead.

[No remarks of ours ever imputed unfairness to the Examiners in Midwifery at the Royal College of Surgeons, nor do we in the slightest degree object to the examination in midwifery, *conjointly* with that for the diploma; but our Correspondent and ourselves are quite agreed upon the monstrous impropriety of constituting a midwifery examination *alone*, and thus creating an inferior class of practitioners. The recent regulations of the College of Surgeons on the subject undoubtedly admit of the latter construction, nor have the College in any way modified the obnoxious clause to which we have objected, and to which we shall continue to object, feeling that the sentiments of the Profession are unanimously with us upon the point. —Ed. *Med. Times and Gazette.*]

USE OF TARTAR EMETIC IN LABOUR.

[To the Editor of the Medical Times and Gazette.]

Sir,—Mr. Perry Dicken is rather premature in his remarks on my observations on the effect of tartar emetic in tedious labours.

I said nothing about its having any specific effect on the os uteri.

I spoke of its very powerful effects, without any allusion to its physiological action. This, I believe, is generally understood to be twofold:—

1st. It acts by diminishing the mechanical rigidity of the os uteri.

2ndly. By its nauseating effects, it promotes muscular dilatation of the same part.

Whether such effects could be produced by any other remedy, or by the simple act of vomiting, I leave others to determine, although I much doubt it.

I regret that Mr. Dicken "cannot at all coincide with the writer with respect to the comparison between tartar emetic and ergot." He appears to think that I placed the former in comparison with the latter as producing the same effect; whereas it is just the reverse, the tartar emetic producing a relaxing effect on the os uteri in the first stage of labour; the ergot a contracting effect in the second stage on the uterus itself.

With respect to the latter remedy, I do not mean to say that in some, nay many, cases, it may not earn for itself all that Mr. Dicken says in its favour, although I confess that, as far as my experience, both in Dublin and in England, has taught me, I have not that exalted opinion of it which I know many to have; and I am quite sure that, in many cases, it fails signally, doing harm instead of good. During my residence in the Rotunda Hospital, I had many opportunities of witnessing its effects, and I have seen it constantly fail, and, with its failure, produce injurious effects on the child. In private practice I have repeatedly met with the same disappointment; and there is one great disadvantage in it, which is, that it cannot, or rather ought not to, be used in first cases.

On the other hand, I have repeatedly used the tartar emetic in the first stages of labour, both in primiparæ and in others, with the happiest results. I have never been disappointed with it. That stage, which is of course generally by far the longest, has been considerably shortened; the os becoming softened and yielding which had previously been dry and hard; the hot and dry passages becoming moistened and cool, and the labour progressing rapidly, and with safety both to mother and child.

Looking at the comparative merits of the two remedies as auxiliaries in midwifery, as far as my experience goes, (although I admit it may have been but trifling compared to that of others,) I am decidedly in favour of the tartar emetic, and I confidently believe, that if it were more generally used, the ergot would be seldom required. I am, &c.

Havant. Wm. Stedman.

LECTURES ON HISTOLOGY.

[To the Editor of the Medical Times and Gazette.]

Sir,—I will feel obliged by your allowing me to rectify an error, wholly unintentional I am sure, which appears in a note to Dr. Hayes' lecture on the Microscope, in your last Number. Dr. Hayes says, in the note alluded to, "Dr. Hughes Bennett, of Edinburgh; Dr. Redfern, of Aberdeen; and Dr. Simmons, of Dublin, have for several years given complete histological courses." I believe, Sir, I may justly claim for myself the merit of having been the first to give a course of lectures on the microscope, and its applications to the study of normal and pathological histology in Ireland; and, as I have expended much time and labour in efforts to advance the cause of micrological science at this side of the Channel with as yet but little return save the satisfaction arising from doing a good thing, perhaps I may be excused if I appear too jealously alive to an accident which might deprive me, at least with some of your readers, of my chief merit,—that of being "primus in armis." I need only add, that there is no practitioner of the name of Simmons in Dublin, nor has there been to my knowledge for years past.—I am, &c. Robert D. Lyons.

31, Upper Merrion-street, Dublin.

[We have much pleasure in giving insertion to the above letter. —Ed. *Medical Times and Gazette.*]

SHOULDER PRESENTATION.

[To the Editor of the Medical Times and Gazette.]

Sir,—As the case of Dr. Mayne, to which my remarks referred in your paper of the 13th November, has not appeared in your columns, I may, perhaps, be pardoned for giving the heads of it, before replying to Dr. Mayne's strictures, as they appeared in your paper of last week. I will do so as concisely as I can, and as nearly as possible in Dr. Mayne's own words. He says, on examination, I ascertained "that the case was one of arm-presentation, my finger-point at once encountering several objects, which gradually became distinguishable into the fingers of a minute left hand, resting in close contact with the acromial portion of the shoulder of the same side and the broad surface of the corresponding scapula." I think, from this description, your readers will agree with me, that the presentation was one of the shoulder, complicated with the hand. The labour goes on, and "the child's hand and greater portion of the fore-arm enter the vagina," the elbow and humeral portion being detained "by the cincture, formed by the cervix uteri binding down and hindering the passage of the elbow;" but, as the os uteri had allowed the hand and the arm to pass, it appears more probable that the elbow was prevented passing by the relative position of the arm-shoulder, the elbow not being able to advance unless the shoulder had been removed out of the way in the direction of the right ilium. Dr. Mayne now tries to return the arm and hand, at first ineffectually, but at last succeeds by "maintaining uninterrupted pressure above the elbow of the child's arm, not backwards, but in an oblique direction." This pressure is kept up for an hour and a quarter, "the woman complaining of his pushing back the child at every pain, and at last orders him to desist." Finding, after a few pains, that the hand does not return, he leaves her for an hour, and, on his return, finds that the presentation is natural. Now, as Dr. Mayne had said nothing at all about the shoulder, I concluded that, having returned the arm, he had turned his attention to the shoulder; but this, he says, he did not, for he did "not touch it;" but I suppose he will not deny that the shoulder was, and must,

have been removed out of the way in order to let the head come down, and that this must have been done either primarily by pressure upon the shoulder itself, or secondarily by pressure upon the arm, or perhaps in some other way, such as that which Dr. Mayne calls "a mentally-defined direction," which, if intelligible to himself, must be wholly unintelligible to his readers.

In remarking upon this case, Dr. Mayne says, the treatment is "new and successful," and so "singular," that "he can find no allusion to anything similar in obstetrical works," and is "staggered" by "the solitariness of his impressions of its true nature." Now, this is rather strong language, and it is upon this question that I join issue with Dr. Mayne, and the question is one of history. In the quotations which I made from the earliest English authors on the subject, I showed that something similar was to be found in obstetrical works, and that head-version was not the course always adopted in such cases which Dr. Mayne had asserted. Dr. Mayne makes a great many assertions, that pushing back the shoulders was not the only course adopted; perhaps not, but he has not given one quotation from any author to show what was the practice, at the earliest times, in those presentations. Will he be good enough to do so?

Dr. Mayne becomes quite facetious upon the idea of quoting from a book, because, forsooth, it has a quaint title, and its orthography is not of the present orthodox fashion; but it appears to me, that when we wish to discover the practices of a generation, the right and proper course to be adopted is to go to the authors of that generation for information; and, as the books in question were the standard works of that day, adopted and referred to as authorities, and translated into various languages of Europe, they appear to be pretty safe guides as to what the practice was at those times.

Dr. Mayne employs a great part of his letter to show that head-version was practised; but, had he read my letter carefully, he might have saved himself the trouble, for I had fully admitted it, stating they were not particular about adopting such a course in some presentations, taking liberties with the uterus which modern accoucheurs would stand aghast at the thought of.

In making the quotations from our early English authors, it was not to be understood that they were given as rules for practice, (nor can I conceive how any one should think they were,) nor as examples of the operations being easy or difficult; nor did I consider they were at all to be compared to modern writers in midwifery, either in the accuracy of their descriptions or their directions for guidance; their language was no doubt exaggerated, and they do not appear to have been at all "staggered" at the result of their manipulations.

I am, &c.

Coleford. THOMAS WIGLESWORTH.

KOUSSO.

[To the Editor of the Medical Times and Gazette.]

SIR,—In your Journal for Saturday, January 1, page 24, in a short paragraph, under the head "Kousso," you allude to the general efficacy of this drug in dislodging the tænia solium, leaving, however, the head still infesting the bowel. In the article "Anthelmintics," which I contributed to the *Penny Cyclopædia*, Vol. II., p. 93, twenty years ago, I recommended the use of the kousso (*Brayera anthelmintica*), at that time almost, if not entirely, unknown in this country; and pointed out the great difficulty of detaching the head, founded on the structure of that organ, furnished as it is with such powerful and numerous tenacula. Of these a representation is given at p. 94. Bitter tonics serve best to loosen its hold, and prevent its redevelopment. Of these, tormentil is one of the best. This herb, the kousso, and strawberries, all belong to the same natural order, *Rosaceæ*, and seem to possess a principle singularly noxious to the tape-worm.

Should you deem these remarks worthy of a place in your Journal, their insertion will oblige,

Yours, &c. ROBERT DICKSON, M.D.

16, Hertford-street, May-fair.

THE PHYSIOLOGICAL EFFECTS OF BISULPHURET OF CARBON.

[To the Editor of the Medical Times and Gazette.]

SIR,—I did not see the note of "H. H. W. G." respecting the bisulphuret of carbon, in your Number for Dec. 18th, until to-day, and, as Dr. Munro, of Moffat, has stated some objections to its use in the Number just issued, I should not trespass on your space were it not to point out the extreme caution required in experimenting with this substance. It is so powerful, that a single deep inspiration of air charged with its vapour, at the ordinary temperature, might cause a person to drop down dead.

In the *Medical Gazette* for 1848 (Vol. I., p. 1076, and Vol. II., p. 333,) some experiments of mine are related which illustrate the physiological effects of this agent.

I am, &c.

18, Sackville-street. JOHN SNOW, M.D.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

Dr. BENCE JONES in the Chair.

THIS being the Annual Meeting of the Society, for the election of its officers, the business of the evening commenced by the report of the Council being read by the Secretary, in which report a review of the proceedings and present condition of the Society was taken. It stated that thirty-five new members had joined the Society during the last session, and that only ten names had been removed from the list, either from death or resignation. The expenditure had been conducted with economy, and although the cost of the "Transactions" exceeded that of any previous year, a larger balance now remained in the Treasurer's hands. Great satisfaction had been expressed by members with the last number of the "Transactions," and the Council trusted that the future publications of the Society might be in a complete volume every year. Some changes had taken place in the list of officers,—Mr. Cæsar Hawkins retiring from the office of President, and Dr. Copland from that of Treasurer. The Council could not allow Mr. Hawkins to vacate the chair which he had filled during the past session and a portion of a former one, without expressing their warmest thanks for the zealous and constant assistance which he had afforded them in the management of the Society's business, and for the marked advantage which has resulted from the exercise of his great experience and his knowledge,—his courtesy and his kindness, whilst presiding over its meetings. The Society was also very deeply indebted to Dr. Copland—his reputation, his knowledge, and his active exertions, aided its earliest efforts, and he has uninterruptedly to the present time given it his warm support and his valuable services.

The Council expressed a hope that members would combine and persevere in rendering the reports to the meetings of as useful and scientific a character as possible, and they felt that the best promise for future was in previous success.

FINANCIAL STATEMENT.

		£	s.	d.
Cr.—				
	By subscriptions, entrance-fees, etc.	239	8	0
	Sale of "Transactions"	7	10	4
	Balance in hand, 1851	40	5	5
		£287	3	9
Dr.—		£	s.	d.
	Tea and coffee	18	0	0
	Stationery	9	0	8
	Collector	11	19	0
	Printing, publishing, etc.	120	2	9
	Rent	30	0	0
	Sundries	12	5	8
		£201	8	1
	By Balance in hand	85	15	8
		£287	3	9

Examined, compared with vouchers, and found correct,—

(Signed) WILLIAM BALY.
ALFRED POLAND.

Dr. Williams rose and proposed that this report be received and printed, and, in doing so, he passed a very high compliment on the late President Mr. Cæsar Hawkins, and, after alluding to his valuable services in the chair, and the general beneficial effect of his attendance at the meetings, he concluded by proposing a vote of thanks to him from the Society.

Dr. Ramsbotham seconded the motion, and it was carried unanimously.

Dr. James Bird proposed a vote of thanks to Dr. Copland for his great services as Treasurer since the foundation of the Society, and concluded by paying a just compliment to him for the most satisfactory condition in which he now resigned the management of the Society's funds.

Mr. Gay seconded the motion.

Dr. Copland returned thanks, and stated that his wish had always been to conduct the financial department of the Society until he saw it in a flourishing condition; and he believed he might say

that it had very seldom happened that any Society could in so short a time after its foundation, show such a large balance in hand; having seen it so far, he was now anxious to deliver over his charge to another, and he congratulated the Society upon having secured the services of Mr. Shaw as his successor.

The thanks of the Society were unanimously accorded to the Secretaries, (Dr. Quain and Mr. Pollock,) Dr. Ramsbotham observing that its present prosperity was mainly attributable to the zeal and industry with which those gentlemen devoted their time and talents to its service. He thought the members ought to consider themselves fortunate in having the affairs of the Society so ably administered, and doubly fortunate in having obtained a continuation of the services of both Secretaries for the present year.

The gentlemen whose names had been submitted to the Society by the Council, were elected to their respective offices for 1853, of which the following is a list;—

(The gentlemen whose names are marked with an asterisk have not previously held the same office.)

President.—* B. G. Babington, M.D., F.R.S.

Vice-Presidents.—P. M. Latham, M.D.; *James Copland, M.D., F.R.S.; Thomas B. Peacock, M.D.; H. Bence Jones, M.D., F.R.S.; *Cæsar Hawkins, Esq.; *John Avery, Esq.; William Fergusson, Esq., F.R.S.; Edward Stanley, Esq., F.R.S.

Treasurer.—*Alexander Shaw, Esq.

Council.—John Hall Davis, M.D.; *C. J. B. Williams, M.D., F.R.S.; Edward Bentley, M.D.; W. Jenner, M.D.; *Henry Fuller, M.D.; W. Brinton, M.D.; Charles John Hare, M.D. *C. Handfield Jones, M.D.; *Joseph Ridge, M.D.; T. Ogier Ward, M.D.; *Mitchell Henry, Esq.; *Edwin Canton, Esq.; James Dixon, Esq.: John Gay, Esq.; W. Coulson, Esq.; *Barnard Holt, Esq.; *Charles Brooke, Esq., F.R.S.; William Adams, Esq.; Robert Woollaston, Esq.; Carsten Holthouse, Esq.

Honorary Secretaries.—Richard Quain, M.D.; George Pollock, Esq.

The usual pathological business was then proceeded with.

CASE OF COMPLETE BONY ANCHYLOSIS OF THE STAPES TO THE FENESTRA OVALIS.

This specimen was exhibited by Mr. Toynbee, who gave the following account of the case:—

J. S., aged 77, formerly a seaman in the Royal Navy, was seen by me ten days previous to his death. The history of his case was, that thirty years ago he was engaged in an action, during which the noise was so tremendous that he became quite deaf, and remained so for six weeks; at the end of that period the power of hearing in a great measure returned, but he did not hear perfectly. For some time he remained dull of hearing, and he then gradually became more deaf, until he was so bad as to require shouting to close to the head; and in this condition he has remained during the last eight or ten years. Upon examination, I found that he could hear only when shouted to close to the right ear, the left ear being quite useless, and a shout into it, when the right ear is closed, is not heard. Right ear: meatus dry; membrana tympani opaque; Eustachian tube pervious. Left ear: meatus dry: membrana tympani white and more concave externally than natural.

Dissection.—Right Ear.—The external meatus contained no cerumen, was dry, and the dermis and ceruminous glands atrophied; membrana tympani opaque, especially in parts, and having a mottled appearance; the handle of the malleus was more fixed than natural, so that when pressed upon by a probe it moved but very slightly and offered a firm resistance. The mucous membrane of the tympanum was not much thicker than natural, but there were delicate bands of membrane between the ossicles; the chain of bones was nearly fixed; the stapes did not move in the least when pressed upon; the cochlea appeared healthy; the vestibule and its contents did not deviate from the normal state, excepting at the part of its wall to which the base of the stapes was attached. Upon careful inspection the circumference of the flat base of the stapes was observed to be of an ivory whiteness, which extended to the adjacent wall of the vestibule for a quarter of a line around the base of the stapes; this ivory whiteness depended upon the presence of bony matter, which firmly connected the stapes to the wall of the vestibule and completely obliterated all indication of the space between them; the membrane of the fenestra rotunda is thicker and more opaque than natural.

Left Ear.—The external meatus contained no cerumen, and was like the right ear; membrana tympani opaque at parts; the long process of the malleus was almost immovable, and the chain of bones was nearly fixed; the tensor tympani muscle was much atrophied; the stapes was immovably attached to the fenestra ovalis. Upon opening the cochlea the membrana fenestræ rotundæ was observed to be thicker than natural, and the surfaces of the lamina spiralis were not so smooth as natural. Upon examining the lamina, by aid of the microscope, the nerve tubes did not present their usual number, regularity, or distinctness, and in place of some of them were seen numerous oil globules. The membranous labyrinth appeared atrophied in parts, and thick in others, and the opening of one of the semicircular canals was filled by otoconia. At the outer wall of the vestibule, in the position usually occupied by the base of the stapes, is seen a white mass of bone a line and a-half in diameter, which completely buries the base of the stapes, connects it firmly to the surrounding bone, and slightly projects into the cavity of the vestibule.

TUMOUR AT THE BASE OF THE BRAIN.

Mr. Gay presented a specimen for Dr. G. A. Rees, of Artillery-place, Finsbury-square, of a tumour at the base of the brain. The account given by Dr. Rees was as follows:—The lad, aged 7, was healthy to the age of 7½, when he began to decline, with loss of appetite, restlessness, and frequent desire to micturate. It was observed by his mother, that his left arm was frequently drawn backwards and fixed in that posture. In the summer of 1852, a change of air proved serviceable to him, and he began to recover his lost flesh. In the September of that year, however, he was attacked with diarrhœa, began to complain of slight headache, again became restless and very talkative, stuttering as he spoke. His gait was unsteady, his character more childish, and his features assumed a constant expression of laughter. His appetite became voracious, although, at the same time, he vomited the contents of his stomach after each meal. Dr. Rees saw him in October. He was then pale and emaciated, extremely restless and talkative, without delirium; there was slight strabismus, with total loss of sight in the right eye. He was desirous of constantly moving about, which he did with a rolling, tottering gait, constantly talking of surrounding objects; whilst his face continued to assume an expression of unmeaning laughter. His tongue was clean; bowels torpid; and he had a frequent desire to pass his urine. Pulse 96, and regular. After this interview Dr. Rees did not see him again alive, but heard that his symptoms became rapidly worse. He began to scream violently; his sickness became more constant; blindness extended itself to both eyes; and he became drowsy, and then comatose. His bowels were obstinately confined, and his bladder impatient of the smallest quantity of water. He had periodic rigors, profuse perspirations, and at length died of extreme exhaustion, on the 27th of December. The body was extremely emaciated. The dura mater was found slightly adherent to the skull; membranes healthy; no fluid in the ventricles. On removing the brain a tumour was found occupying the space between the middle and anterior cerebral lobes. It was pear-shaped, about three inches in length, and one inch and a quarter at its greatest diameter. The small extremity lay within about three lines of the pons varolii, between the crura cerebri and the middle lobes of the brain; while the front and largest portion lay beneath, and indeed was partially imbedded in the right anterior lobe, the portion of the lobe forming its bed having lost its grey matter, apparently by absorption consequent on pressure. The right optic nerve could not be found; and it is to be regretted that the *post-mortem* changes had so altered the consistence and structure of the thalamus opticus and adjoining portion of brain before it was examined, that the precise condition of these parts could not be made out. The left optic nerve was adherent to the side of the tumour, and considerably diverted from its normal course. The posterior extremity appeared to lie on the third ventricle, the floor of that cavity having been removed; while the opposite portion of the tumour was adherent to the contiguous brain-surface by some slight cellular tissue. The thoracic viscera were healthy, with the exception of the lower lobe of the left lung, which was solid, but had no tuberculous deposit. The mesenteric glands were enlarged, but these had also no tubercle in their substance. Mr. Gay remarked on the interest attached to the case, especially on account of the symptoms, which, with tolerable accuracy, might be assumed to mark the rise and progress of this tumour. It would appear to have commenced near the right crura cerebri, from the rigidity of the arm which was observed at the outset of the disorder; and, as the tumour extended itself forwards and increased in size, so it involved the optic nerve, the third pair, the right olfactory (which was also gone), and the grey matter of the right anterior lobe, as was marked by the concurrent loss of vision, the strabismus, and the subsequently impaired state of his intellect. (The tumour is to be examined by Mr. Toynbee, and reported upon at the next meeting.)

Mr. Robinson exhibited an

ENORMOUS ENLARGEMENT OF THE LIVER FROM MEDULLARY DISEASE, IN CONJUNCTION WITH PREGNANCY. (TWIN GESTATION WAS SUSPECTED,)

and gave the following history of the case:—I was requested to examine the body of a woman, aged 39. I learned that she had been married some years, had had several children and some miscarriages; that she was a very temperate person, and not at all addicted to drinking, and that she had enjoyed excellent health until six months before her death, when she felt faint and sick in the morning, and found herself again pregnant; the abdomen enlarged considerably, and she felt much more heavy than usual. The last few days of her life nothing was retained on the stomach. She experienced a sharp pain in the left side of the abdomen, for which leeches were twice applied with relief; the bowels were costive; motions dark-coloured. A short time before death she had a hacking cough, and brought up some blood; the urine was generally scanty and high-coloured. She became excessively exhausted, and died; and, from the size and shape of the abdomen, it was supposed that she had twins.

Dissection.—Body generally excessively emaciated. The abdomen was very large, and was occupied by two large, irregularly lobulated tumours, to the feel very solid, and one small lobulated tumour at the epigastrium. The thoracic viscera were healthy, but encroached upon by the viscera of the abdomen. The liver was of most enormous size; it occupied completely both hypochondria, and extended on the right side completely, and on the left nearly to the crista of the ilium. It was exceedingly hard, lobulated, and converted at all parts but one small portion posteriorly into large medullary tumours, all of which were depressed in the centres, and covered with puckered peritoneum, exceedingly loaded with tortuous veins and some florid vessels; many of these depressions were filled with coagulated blood. The left side of the liver was adherent to the peritoneum lining the abdominal parietes, which was in parts covered with lymph, and in others by coagulated blood. There was some fluid tinged with blood in the cavity of the abdomen. The liver weighed 17½lbs. The gall-bladder was flaccid, and contained some green bile. The intestines were small, and very much compressed. There was one small medullary tubercle on each side of the fundus of the uterus, immediately under the peritoneal coat. The uterus itself was of the usual size for a six months' pregnancy; it contained a female fœtus and much green liquor amnii.

DISEASE OF THE HIP, AND REMARKABLE INCURVATION OF THE RIGHT FEMUR.

Mr. Coulson exhibited a specimen of disease of the right hip, taken from a man 35 years of age, who had suffered for more than fifteen years from disease of this joint. The patient could only lie on his left side, with the right leg supported on the left thigh. The head of the femur was evidently on the dorsum of the ilium, the integuments were ulcerated over the great trochanter, which was exposed on its external surface; the discharge was very copious, and the patient died from exhaustion. On examination, this limb was found generally atrophied, the femur not being larger than that of a child of ten years of age, excepting at the condyles, which were tolerably developed. At the junction of the inferior with the two superior thirds, the thigh bone presents a most remarkable curve, the concavity of which looks forwards and a little inwards. On the level with this curve, the bony structure is the same as that above and below, only at its internal part may be observed the remains of the large vascular foramen almost obliterated. The neck is nearly in the direction of the shaft, and forms with it but a slight angle; it is reduced to one-fourth its normal length, especially in front. Properly speaking, the head does not exist, the neck being surmounted superiorly and in front by a few bony prominences, presenting all the character of caries. Some detached bony fragments were found on opening the joint, and one of them was as large as a hazel-nut. Around the base of the neck were attached several fibrous filaments, constituting an incomplete capsule, which was attached above to the ilium. The great trochanter flattened, deformed, and reduced to a simple layer of bone, sharp at its superior edges, is carious on its external surface, which was exposed during life. The lesser trochanter is natural, excepting as regards its size. The os innominatum is strongly bent at the junction of the ilium with the ischium and pubes, and to such a degree that the anterior edge of the ilium forms a right-angle with the horizontal branch of the pubes. The os innominatum is atrophied in its whole extent, especially the pubes and ischium, but less in proportion than the femur. The acetabulum is greatly deformed, its edges being flattened, so that there is only a slight concavity left. Towards its posterior and superior extremity, the rim of the acetabulum is completely destroyed, and in its place a small, wide, flattened, bony surface, which probably corresponded with a part of the head of the femur before it was destroyed. Above this bony surface there is a considerable thick fibrous mass inserted in the lower part of the external iliac fossa. This fibrous mass forms a covering concave below; and in this concavity are lodged the neck of the femur and the remaining portion of the head, so that there is a complete luxation on the external iliac fossa. The head of the femur does not immediately touch the bony surface of the external iliac fossa, from which it is separated by a part of the fibrous mass just mentioned. The glutei muscles had completely disappeared in the midst of a thin cellulo-fatty mass. Mr. Coulson observed, that if the joint had been opened during life, and the sequestra removed, a great source of irritation would have been removed, and life prolonged.

MEDICAL SOCIETY OF LONDON.

Mr. Bishop, F.R.S., President, in the Chair.

REMARKABLE MANIFESTATION OF HIRSUTE GROWTH IN TWO SISTERS, NATIVES OF SWITZERLAND.

Dr. Chowne wished to explain, before the business of the evening proceeded, that a question put by him, in the course of the previous evening's discussion, on what had been called syphilization appeared to have been put in a manner which produced misapprehension as to its purport. He did not intend to ask whether a person labouring under secondary constitutional syphilis, acquired by impure intercourse, could transmit the disease to his children, but whether those experimenters who advocated the introduction of syphilis by artificial inoculation, contended that the disease, so introduced, could not be imparted to the offspring.

Dr. Chowne then said, it would most likely be in the recollection of the Society, that in the course of the last year there had been published in the *Lancet*(a) the case of a woman, Josephine Boisdechine, who had an extraordinary quantity of hair on the sides of her face and on her chin, forming indeed a large beard and whiskers, who applied at the Charing Cross Hospital in the company of a young man,—the young man stating that they were engaged to be married, but that they had difficulty in getting the marriage ceremony performed, and they wished for a professional statement, as to any doubts that the masculine condition of the face had suggested. Under these circumstances, the subject was referred to him (Dr. Chowne) as a medico-legal question; and he was sorry to add, that a certificate which he wrote upon that occasion, to the effect that there was no legal reason why she should not marry, had been made a public use of, which he much objected to, a use quite foreign to the purpose for which it was obtained. That female informed Dr. Chowne, that she was the only one of her family who had any similar peculiarity, and that she had two sisters and a brother, all of whom were like other young people; but in the course of the last month, a younger sister, Eliza Boisdechine, presented herself at the Charing-cross Hospital; and as she was at the time of his speaking, waiting in the Library of the Society, the members would have an opportunity of seeing that she was almost the counterpart of her elder sister, as to hirsute growth; and those who had seen both sisters, would most likely perceive a strong family likeness. Eliza Boisdechine informed Dr. Chowne that she was a native of Versoix, in the Canton of Geneva, Switzerland, and that she was eighteen years and a half old. The two sisters had agreed in stating that they did not know anything concerning their descent, further back than their grandparents. The elder sister, Josephine, had stated that her grandfather, on her mother's side, was remarkable for a large beard and whiskers; but of this the younger sister had not heard. They also agreed in saying that their father was a dark man, with dark hair; that their mother was neither dark nor fair, but brown. They agree, too, in stating that the children of their parents are four—three sisters and one brother. The appearance of Eliza, however, contradicts the statement of Josephine, that she (Josephine) was the only one of the family having hirsute growth. Dr. Chowne proceeded to say, that Eliza (the subject of the present remarks) had a full and feminine head of hair, and that the length of that of the back part of the head, as well as that of the front and side hair, was two feet and a-half. From the back of the neck downward, over the spine, in the depression formed by the muscles of the back, there was quite a thick profusion of hair, sufficient to entirely conceal the skin at that part. Over the shoulders there was a considerable quantity; over the collar-bones and upper part of

(a) *Lancet*, 1852, Vol. I., p. 464.

the chest much less, but still an obvious excess for a female. On the upper parts of the breasts there was merely a slight down. The arms from the shoulders to the wrists, and the lower limbs to the ankles, presented a growth of hair fully equal to what would be seen on the skin of a man moderately hirsute. The hair on her face and forehead, if not occasionally shaved, would nearly conceal the whole face except the nose. She states that she uses the razor about every eight or nine days; and the finger applied to the forehead and over the cheek-bone can perceive the points of new hair. On the central parts of the upper lip there is scarcely any hair, indeed she has no moustache. With regard to her form, her head is rather large for a female of her age and stature, but the expression of her face is feminine, as is also her general manner. Her throat is not large, nor the larynx more prominent than is consistent with perfect effeminacy, and the voice is that of a woman. The breasts are not large, but they are in all respects strictly womanly, and, indeed, the excessive growth of hair constitutes the only approach to masculine peculiarity about her. Her limbs are feminine in their shape, and her hands and feet are small. At her birth there was, as she states, on her cheeks and chin, and on those parts where it is in excess now, a considerable quantity of soft hair; at about five years of age it began to grow more full, but did not acquire anything like its present fulness, and strength, and darkness, until about 15 years of age. She enjoys excellent health, scarcely ever requiring medical advice. The catamenial state, however, was dormant until about the age of 17½ years, since which it has been normal. Her disposition and occupation are those of a female, and she has the reputation of possessing a very mild, obliging, and agreeable temper. With regard to hereditary origin, Dr. Chowne considered, that either of the cases would, even individually, be of great interest; but, there being two children out of four, by the same parents, born with the same peculiarity, the probability was the greater that there existed, in the one or the other parent, a positive proclivity to the transmission of hirsute growth, as the result of an inherent and hereditary origin. The occasional disappearance and re-appearance of personal peculiarities, and even of likeness, after the lapse of more than two or three generations, was well known, and was often seen in a descending series of family portraits. That previous abnormal hirsute growths had existed in the earlier branches of the family of those young women was the more probable, from the very circumstance which makes the doctrines of hereditary transmission, whether of malformations or of mere excess of growth, like the present, (as may be presumed from excess of nutrition of the hair,) or of diseases regarded as hereditary, so exceedingly difficult, the immense number, for example, of constitutional peculiarities which might exist in any individual, as the consequence of his numerous ancestry. Even going no further back than to the great-grand parents, every man has in his veins the blood of eight ancestors; ascending to the seventh generation, he may count 128 ancestors; to the tenth, a thousand and upward; and in the twentieth generation, above a million. Thus the difficulty of dealing with hereditary proclivity is immense. The subject of these observations was then presented to the notice of the President and the Society.

Dr. Camps said he had been given to understand that the elder of the two sisters had two children, one of which was more than two years old. He should like to be informed by Dr. Chowne whether either of these infants presented any indications of that hirsute development which so remarkably characterized the mother.

Dr. Chowne replied, that the eldest child died at the age of 2½ years, but no extraordinary appearance of hair had been at any time visible on its body. The other child was but just born, but he believed nothing unusual had been observed in it.

Dr. Hare referred to an instance in which an individual had no hair at all on any part of his body, a peculiarity which he derived clearly by hereditary transmission, both his mother and grandmother having been subject to the same deficiency. He was disposed to think, that in most instances of this nature the peculiarity was inherited, although perhaps the tendency might disappear from the family for one or two generations, and then recur. Most of the general peculiarities of the body were inherited. He had witnessed lately an example of the hæmorrhagic diathesis in a gentleman, this state of the vascular system being derived by the individual in question by transmission through the male progenitors of his family. He should be glad to know from Dr. Chowne whether the brother of these two women exhibited on his body a similar profusion of hairy growth.

Dr. Chowne said, that the information respecting the brother was of a doubtful description; but he was able to state that he certainly did not possess the hirsute peculiarity of his sisters.

Mr. Canton thought it might be advantageous if the hair itself were examined microscopically, to ascertain whether it presented the appearances of regularly-formed natural hair. It was well known that adventitious formations of hair, such as were occasionally met with in tumours and ovarian cysts, differed in several points from the ordinary hair of the body. Possibly, in the present case, some such difference might be detected, tending to show that this remarkable formation was not the product of a sound nutrition.

The President now called on Mr. Brown to read his Paper.

Mr. J. Baker Brown read a paper on

RUPTURE OF THE PERINÆUM.

Mr. Brown began by observing that he read some observations on the same subject before the Society in 1851, and that he had subsequently published his remarks on this distressing accident, and that since he had had such an accumulation of experience, that he thought them worthy of being recorded. Mr. Brown stated, that no mention of the necessity of dividing the sphincter was made by Dieffenbach in his "Operative Surgery." Mr. Brown would now, more carefully than he had hitherto done, describe the operation itself. The patient should be placed in the position for lithotomy; the knees well bent back upon the abdomen by an assistant to each leg; that the parts around should be carefully cleansed of hair by shaving; then each assistant should hold the sides of the vagina and perinæum, so as to insure sufficient tension for the operator to make a clean incision with a scalpel down into the vagina about three-quarters of an inch on each side, removing carefully and thoroughly the mucous membrane. Having done both sides, there would still remain a space covered with mucous membrane between those two sides, embracing the edges of the rectum where the sphincter was lost; that this must also be carefully denuded,—very carefully, because, if there remained the slightest portion of mucous membrane around, or even near to the rectum, then most certainly there would be a recto-vaginal fistula after the restoration of the perinæum; that some operators, especially on the Continent, had removed the mucous membrane by the scissors, but Mr. Brown stated, that that was a long and insecure method, and that the knife would be found quicker and better. Mr. Brown observed, that as soon as this stage of the operation was completed, the sphincter should be divided as before described; then the legs should be relaxed, and the thighs brought more in apposition, so as to allow the sides of the vagina to be grasped with the forefinger and thumb of the left hand, while with the right the sutures were passed deeply through each side, as deep as the denuded surfaces of the vagina; the first backwards, as near the rectum as possible without piercing it; the second and third in the same way; that the length of the incision should correspond with the scar of the ruptured surfaces; that the sutures were double, so as to allow the quill, or, more properly, the piece of elastic bougie, to pass through each suture on both sides. Mr. Brown preferred twine to silk for the sutures, because it was less irritating, and produced, therefore, less suppuration; that the forefinger of the right hand should then be passed into the vagina, and the forefinger of the left hand into the

rectum, so as to ascertain that there was no opening; that, having secured the three sutures firmly to the bougies, it was advisable to bring the edges of the incised surfaces together by three or four interrupted sutures; that, if this step of the operation be carefully done, union of the skin would quickly take place, and materially facilitate the adhesion of the deeper surfaces. Mr. Brown observed, that it had been asserted by many accoucheurs of the highest eminence, that, if the operation be performed immediately after the accident, no good would result, as the lochia would flow in between the surfaces, and thus prevent adhesion and union; this was the opinion entertained by Trogher, who states, in the 7th volume of the *Vienna Journal* for 1851, among other conclusions drawn from sixteen cases, "that a favourable issue could only be expected where there was a very moderate flow of lochia;" also, "that it was impossible to protect the margins of the wound from the injurious influence of the lochia." Mr. Brown believed that these objections were removed by dividing the sphincter; if not, the inner edges of the wound would be gradually drawn apart by the action of that muscle, and the lochia would penetrate; whereas, after division, those edges were perfectly passive, and steadily kept together by the sutures. Mr. Brown stated, that, for the convenience of discussion, and in order to make his paper more intelligible, he affirmed four distinct propositions, which he hoped to demonstrate by the cases which followed:—Firstly,—That the oldest and worst forms of ruptured perinæum could be cured by the operation he had already described. Secondly,—That the worst forms could be cured by operating immediately after the lesion. Thirdly,—That the new perinæum was not torn by, or prejudicial to, subsequent parturi-

tion. Fourthly,—That those forms of rupture where the sphincter was not torn through, should be cured, to prevent prolapsus uteri, etc. Mr. Brown proposed to illustrate the first proposition by five cases; then the second and third propositions by three cases; and, finally, the fourth proposition by two cases. In all, ten cases, which, in addition to the two already published, would make twelve cases.

Case 1.—Mrs. D., aged 45, admitted into Victoria Ward, St. Mary's Hospital, January 30th, 1852. Seventeen years ago confined with her first child; instruments were used, and ever since has had no control over the bowel; has had five more children. Fifteen years ago an operation was performed at Exeter, but unsuccessfully, for at the end of ten days she was worse than before. On one occasion she remained seventeen hours on the night-stool, and was generally unable to leave her house. The whole of the structures between the vagina and perinæum have been torn through, there being no remains of the anterior half of sphincter ani; there is very little loose integument about the margins of the rent in the perinæum consequent on the former operation.

February 4.—The day before the operation, a purgative was given, and on the day following, the operation was performed in the way already described, and the patient left the hospital with a slight superficial fistulous opening from the anus to the vagina, which was treated by caustic, and the patient resumed her duties with comfort. In this case the bowels had been confined by opium eighteen days.

In all essential points, the next four cases were similar to the foregoing; in each of them the operation signally succeeded.

Case 6.—Mrs. E., aged —, a private patient, confined with her first child, which caused complete laceration of the perinæum; the rent was through the superficial muscular fibres of the sphincter, but not through the deep fibres nor through the rectum. The operation was performed December 29th, and on the 5th of the following January she was convalescent.

Case 7.—Mrs. D., aged 35, a private patient; February, 1851, delivered of her first child after forty-eight hours of continued labour; perinæum continued like soaked pasteboard, and no care or attention prevented the perinæum giving way entirely through the superficial fibres of the sphincter. Operation immediately performed, but the sphincter not divided. The cure, therefore, was much protracted. Aug. 27, 1852.—This patient was delivered of her second child, and, under care, no fresh rupture of the perinæum occurred.

Case 8.—Mrs. V., aged 29, October 1851, first child, twenty-four hours in strong labour, the last six producing no good results; os uteri gone, the head on the perinæum; the forceps had been used by the medical man in attendance, and rupture of the perinæum through its whole extent, and through the superficial fibres of the sphincter, but not through the deep fibres, was the result. The operation in the manner before described was performed, with the exception of the division of the sphincter, which rendered the union much slower than it would have been; but the patient did very well, and on the 12th Nov., 1852, Mr. Brown attended the lady, and she had a good labour, and no fresh rupture ensued.

Case 9.—Elizabeth Turnage, aged 37, admitted into Boynton Ward, St. Mary's Hospital, March 26th, 1852. Three years ago, at her confinement, the perinæum was completely ruptured by the sudden descent of the head without medical assistance, at the moment of its extrusion. The rupture did not go through the sphincter or recto-vaginal septum, and she had not suffered from incontinence of fæcal dejections, but much from procidentia uteri, which partially extruded from the vagina, and pressed on the rectum, producing fissure of that bowel. The fissure was first cured by division of the sphincter, and the cure of the procidentia uteri attempted by the usual remedies for the restoration of the health, but did not succeed on account of the absence of the floor of the vagina, and on April 7th, the operation for the restoration of the perinæum was performed, as already explained, and on the 24th the patient was discharged cured, with a sound perinæum, and free from procidentia uteri.

Case 10.—Elizabeth A., aged 23, admitted July 2nd, 1852, into Boynton Ward, St. Mary's Hospital. Had been married twelve months, confined five months ago, labour lasted three days, no instruments used. The perinæum had been ruptured through its whole extent, but the rent had not passed through the sphincter. There was procidentia uteri, and discomfort about the rectum, produced by pressure of the uterus on that bowel. On the 7th the operation was performed as previously described, and on the 30th she was discharged cured.

Mr. Brown concluded his remarks by stating that he was confirmed in the opinion he before expressed on the benefits to be derived from the use of opium, and the general points in the after treatment.

Mr. Rogers thought the warmest thanks of the Profession were due to Mr. Brown for the zeal and ability with which he had, step by step, improved the operation which he has described to the Society, until he had rendered it a safe, certain, and efficient remedy for one of the most distressing infirmities to which females were liable. He had witnessed many of the cases operated on by Mr. Brown, and could testify to their salutary results. Many years ago, when in Paris, he had an operation for the relief of perinæal laceration practised without success, and he attributed the failure to an ignorance of the methods and precautions adopted by Mr. Brown. One of the cases which had been read by the author occurred in his (Mr Roger's) practice, and he had consequently an opportunity of watching closely the immediate and ultimate effects of the operation. Some unpleasant symptoms appeared at first, such as hæmorrhage and throbbing pain in the perinæum, but these passed away, and a completely successful result followed. From what he had since seen, he felt convinced that the operation was worthy of the highest confidence, and Mr. Brown deserved great credit for the attention he had bestowed in perfecting it.

Dr. Barnes said, that while he freely concurred with the last speaker in his admiration of Mr. Brown's operation, and entertained no doubt of its capability to relieve those distressing cases of perinæal laceration, whose physical and social evils could not be over-rated, he should yet offer some observations on certain points respecting which he could not altogether agree with the author. Ruptures of the perinæum had, it must be confessed, till within the last few years, been considered by many authorities as irremediable by surgery. Mr. Colles, of Dublin, had, he believed, stated that nothing could be done to cure them. It was, therefore, highly creditable to Mr. Brown that he had shown that judicious operative proceedings, even in the worst cases, were followed by success, if only proper precautions were taken to ensure it. He did not at all agree with those obstetric writers who, making a merit of the imperfections of science, maintained that, in many cases, laceration of the perinæum was an inevitable necessity, which, if healed up, would certainly be rent through again at a future labour, and should therefore be left unrepaired, even if repair could be effected. He concurred with Mr. Brown in thinking that it was the duty of the surgeon to minister in every instance to the comfort and well-being of his patients, and to adopt any operation which he thought afforded a reasonable chance of restoring injured structures as nearly as possible to their natural integrity. He was surprised to hear Mr. Brown say, that sudden and short pains, such as he was accustomed to call abortive pains, were the sure indications of the cord being twisted round the neck of the child, and were generally followed by a rapid passage of the head and shoulders, and consequently were liable, unless carefully watched, to cause perinæal laceration. He (Dr. Barnes) was quite unable to see what possible dependence the pains in question could have on the position of the cord with reference to the child; and he felt confident that they resulted from a wider and altogether different cause. He was inclined to think that a great improvement would be effected in Mr. Brown's operation if the bead sutures, invented by his friend, Mr. Brooke, were substituted for the quill sutures. These bead sutures had been found very useful in cases of perinæal laceration, and could be applied anywhere, and at any depth from the surface. Moreover, by their employment, not only the external wound, but the internal also, that is, the wound of the vaginal mucous membrane, could be brought together, and thus a large gap which favoured the formation of matter would be prevented. If this suture were employed, it would not be found necessary to divide the sphincter; and this was, he conceived, no slight advantage to the patient. In Mr. Brown's operations, the sphincter had been divided in a manner inferior, in his (Dr. Barnes's) opinion, to the subcutaneous section practised by the late M. Blandin, of Paris, for a similar purpose.

Dr. Murphy considered that the subject should be regarded in two different aspects, a surgical and obstetrical, and, proceeding in conformity with this opinion, he should confine his observations to the obstetrical division. Now, in cases similar to those related by the author, there could be no doubt that the operation which had been advocated should be adopted; but there were cases of perinæal laceration of a less serious nature, in which he thought the propriety of operating was questionable. When, for example, the laceration had involved only the anterior fibres of the sphincter ani, and the patient still retained the power of commanding her motions, especially if the perinæal space were originally of small extent, he thought it would be more prudent to abstain from closing the rent, because, at the next labour, it was highly probable that rupture would again take place. If the operation could restore to the patient a perfectly extensile natural perinæum, he should not object to its performance; but this was not the case, for the cicatrix

resulting from the closure of the wound was of a far less yielding nature than the original structure, and therefore was doubly susceptible of laceration. He was decidedly opposed to, he was almost induced to say he protested against, the performance of an operation in recent cases as soon as possible after the occurrence of the rupture. It was vitally important for some time after delivery to avoid the accession of inflammation in the tissues adjacent to the uterus; and if inflammation were set up in the vagina, there was great reason to dread its extension. Besides, it was well known that a laceration of the perinæum, which, a few hours after delivery might appear of formidable extent, would frequently contract in two or three days to one of insignificant size, so that an operation practised prematurely might have been altogether unnecessary. For these reasons, he considered that in all cases of perinæal rupture in which an operation was resolved upon, it would be infinitely better to defer the operation than to practise it immediately after parturition.

Mr. Coulson thought the chief merit of Mr. Brown's operation consisted, as in most operations, in the perfect adherence to its details. There were four principal features in Mr. Brown's operation to which he would more especially advert. The first, which had been hardly noticed sufficiently in justice to himself by the author, was the large extent of mucous membrane that was pared from the edges of the wound. He (Mr. Coulson) considered this a very important step, because two thick vascular edges were thus gained, which could be accurately and evenly brought into contact with each other. The second was, the lateral division of the skin and sphincter on each side,—a proceeding preferable, in his opinion, to subcutaneous section, and which contributed greatly to the success of the operation, by preventing all traction on the edges of the wound, and affording great relaxation to the skin and cellular tissue. The third point was, the guarding against the possibility of the urine dribbling on the wound; and the fourth, the tranquillity in which the bowels were maintained for some days after the operation by the liberal administration of opium. Each of these measures was, he conceived, necessary to the success of the proceeding; and if they were put in practice, and the operation properly performed, he had no doubt that the result would be almost invariably satisfactory. He had seen nearly all the cases narrated by Mr. Brown, and was extremely glad to have the opportunity of bearing his cordial testimony to the masterly ability displayed by that gentleman in the performance of the operations which he advocated, as well as to the unwearied assiduity and vigilance which characterised his subsequent management of the patients.

M. Obré said, although he was only there as a visiter, he trusted he should be allowed to offer a few observations on the subject, as in one of the cases which had been related the rupture took place while the patient was under his own charge. It extended quite into the rectum, and was followed by inability to command the motions. She went into St. Mary's Hospital, and there underwent the operation, which proved completely successful. Dr. Murphy objected to the performance of the operation immediately after labour, because a raw surface was produced in the vagina, but, in a recent rupture, it should be remembered, that paring of the edges was unnecessary, the insertion of sutures and division of the sphincter being the only essential proceedings. He had performed this operation himself immediately after labour with entire success; and, on a subsequent occasion, when the anterior fibres of the sphincter had only suffered laceration, he had not found it necessary to divide that muscle.

Dr. Murphy observed, that he did not ground his objections to the immediate performance of the operation on the circumstance of a raw surface in the vagina, but on the great danger of exciting inflammation in the neighbourhood of the uterus at such a period; and inflammation would, he conceived, be excited by the introduction of sutures, and the application of pressure to a lacerated wound.

Mr. J. B. Brown thanked the various speakers for the eulogistic observations which they had bestowed on his operation, and remarked, that he should feel amply rewarded if he had been instrumental in removing from obstetric surgery a blemish under which it had too long suffered. It had been remarked by Mr. Rogers, with perfect truth, that, generally speaking, scarcely any treatment was now adopted in these cases; the patients were left alone; their infirmity, they were told, was distressing, but, unfortunately, beyond remedy. A lady, on whom he had operated successfully, had, before coming to him, consulted one of the most eminent obstetric physicians in London, and, though the rupture went completely through the sphincter, and the existence of the patient was rendered miserable to herself and a burden to her friends, though, too, she was but 22 years of age, yet she was advised to do nothing but patiently to submit for the remainder of her life to a condition which, however deplorable, was beyond the powers of surgery to relieve. Now, he thought that such a confession of impotence was a stigma on surgical science, and he had laboured hard, and he hoped successfully, to remove it. Dr. Barnes had recommended him to substitute the bead suture of Mr. Brooke for the quilled suture, but it was impossible that the bead suture, however excellent it might be in vesico-vaginal fistula could succeed better than the quilled and interrupted sutures had done in his hands. Dr. Barnes mentioned, that if the bead suture were employed division of the sphincter would be unnecessary; division of the sphincter, however, was one of the most essential features of his operation, and without its performance he should not look with any confidence for success. He had never seen any harm result from the prolonged constipation, and he believed that the opium exercised a most salutary influence over the patient, by allaying the irritability of the nervous system, and so diminishing the risk of inflammation. He preferred complete division of the sphincter with the skin covering it, to the subcutaneous section of Blandin, because it was of the highest importance to relax the integument and cellular tissue as well as to paralyse the muscular fibres. Dr. Murphy was, he thought, needlessly apprehensive of vaginitis when the operation was performed immediately after labour; he (Mr. Brown) thought the exhibition of opium protected the patient from inflammation, and he would never, under any circumstances, resort to the operation without freely administering that narcotic. In conclusion, Mr. Brown referred to a case in which a lady who had become reduced in circumstances, and was obliged to perform the duties of a governess, having a considerable distance each day to walk to her pupils. She had suffered at one of her labours a severe laceration of the perinæum, and now had large prolapsus uteri in consequence; she was obliged to wear a bandage in order to keep the uterus in position; but this was a source of great discomfort to her, and her health was failing in consequence of the condition in which she was placed. He (Mr. Brown) had advised her to submit to the operation, and he felt sure that after its performance she would be in a state of complete comfort.

The Society adjourned at the usual hour.

EPIDEMIOLOGICAL SOCIETY.

Dr. Babington, F.R.S., President, in the Chair.

Dr. Waller Lewis, F.G.S., read a highly interesting and valuable paper, entitled,

ON THE RELATIONS OF VACCINATION AND INOCULATION TO SMALL-POX;

but it contained much more information than could be comprehended under that or any other brief title; indeed, two or three papers might well have been constructed from the germs so richly sown in it. The following are some of the questions raised by this paper that well deserve further elucidation, and which would have received it by the author, had he not been prevented by his wish to make the communication as practical as possible, and his desire to leave time for discussion of the principles he brought forward. Does vaccination act as a protective or a mitigator of any other disease than variola—measles for instance? Is it a law that revaccination is effective in the ratio of the distance of time from the previous vaccination? Can a systematic supply of fresh vaccine virus be kept up by artificially inoculating cows? What are the advantages of such lymph, if it can be obtained, over the often transmitted lymph? What is the influence of sanitary conditions on small-pox? How is epidemic small-pox affected by the co-presence of another epidemic—cholera, for instance? Does variola ever arise from any other cause than contagion? Is it ever formed *de novo* as from malaria, noxious and putrescent gases, or by the aid of these or similar causes? Can variola lie dormant in a constitution a period of six months or more? Does the disease in dogs, termed distemper, constitute the analogue of small-pox? "The object of the paper (said the author) is to endeavour to deduce some general laws respecting small-pox and vaccination that may pave the way for clearing up some of the apparent mysteries and incongruities that now surround these subjects. As one of the members of your Committee that has been for some time engaged in preparing a report on these two subjects, some thousands of letters have passed through my hands. Many of these letters contain histories of remarkable cases that have been attended by practitioners, not only in this country, but throughout the world; and many contain the results of their experience of the disease. In the foreign correspondence that has taken place between myself, as one of your foreign correspondents, and the Ambassadors, Ministers, Syndics, Sanitary Boards, and Medical

Academies of nearly every portion of the civilised world, many interesting and important particulars have been gleaned, which, although they could not have been extracted and thrown into the Report of the Committee without making it too ponderous and bulky, have been made use of when they have served to illustrate a position or to fortify a practical deduction. Some other cases have been sketched which, without tending directly to develop a law, are interesting as furnishing subjects for further inquiry. In a large portion of this paper the language is my own, but, in some instances, the cases are taken *verbatim et literatim* from the correspondents' own letters. This will account for the provincialisms to be met with occasionally." We commence by giving two or three cases that show the efficacy of vaccination; "The father of a family obstinately refused to have his children vaccinated. He had three daughters by his former wife, four by his present one. The eldest of the second family had been vaccinated without his knowledge; the others he had forbidden. All the children of both families took small-pox, except the one child that had been vaccinated clandestinely." "Three children, A, B, and C, the daughters of Mrs. S., who had hitherto refused to have her children vaccinated, were exposed to small-pox, owing to a sister being brought home while labouring under it. I had only enough lymph to vaccinate A fully and B partly; C was left to take her chance. A took vaccinia perfectly, and entirely escaped small-pox; B took imperfectly, and had the disease mildly. C took the disease fully." "I attended a case of small-pox in a cottage where there were two unvaccinated children, the parents not approving of the practice. As a personal favour, I was allowed to vaccinate one of them. Vaccinia was perfectly developed, and saved that child; the other had a most severe attack of small-pox." The author continued, "I believe I may say, both from my own experience and the innumerable cases that have come before me as a member of your Small-pox and Vaccination Committee, that the most certain way of taking small-pox is by medical students dissecting small-pox subjects. A very large proportion of those medical men who have taken small-pox after vaccination have had the disease from this cause. The following case will furnish a very powerful proof of the protective power of vaccination, even against exposure in that way:—' Upon commencing my hospital studies at St. Bartholomew's, in 1829, I took part in the dissection of seventeen small-pox bodies. Previous to commencing upon them I was re-vaccinated, but without effect. I then, without fear, began dissection. The third subject was an extremely bad confluent case, and scarcely cold. Whilst making the first incisions through the integuments, with the scalpel literally dripping with matter, I wounded the index finger of the left hand, regardless of which I continued dissecting during that and the following day. I felt indisposed in the afternoon of the second day, passed a very restless night, followed by one day's severe fever. Over the seat of the wound a single pustule of modified small-pox appeared. After this I had not the slightest inconvenience, and went through much exposure to small-pox with safety.' "

VACCINATION MORE PROTECTIVE THAN INOCULATION.

"Some years ago Miss M. G—— married a tradesman in London. She had been vaccinated when a child, but ineffectually. About a month after her marriage she fell ill with confluent small-pox. During the attack her husband and a young sister were constantly with her. These had been vaccinated when children. On being called to the case I advised the husband to be re-vaccinated, and I took away the younger sister, sending in her place an elder one who had been inoculated. The father, an aged man, who had also been inoculated, went also, and remained with his daughter till she died. The result was this:—The husband who, in his anxiety, neglected to be re-vaccinated, escaped the disease notwithstanding. The younger sister was slightly indisposed for a few days, but had no eruption. The two who had been inoculated, viz., the father and elder sister, both had small-pox eruption and fever." The Doctor then read several cases in which vaccination had been protective from small-pox, where a previous attack of small-pox had failed to be so.

MEASLES RENDERED MILDER BY VACCINATION.

"Joler has described an epidemic of measles that took place in the Retzat Circle, in Bavaria, in the district where he himself resided. He says that the disease was much milder among the vaccinated than among the unvaccinated. 15 in 52 died among the non-vaccinated, while barely 1 in 300 died among the vaccinated, showing that measles was 86 times more fatal among the former than the latter." Examples of careless imperfect vaccination were then dwelt on, and the author stated that his opinion was clear and decided on the point, that where well-marked normal cicatrices were not left, the operation should be accounted a failure, and repeated, although he owned that this was not entertained by many practitioners in this country and Germany. Vaccinating from re-vaccinated persons, from those who had been inoculated, and from such as had previously had small-pox, was strongly denounced, as vaccinia must be extremely modified in such cases. The author added: "When we interest ourselves strongly in the propagation of vaccination, we must guard ourselves from furnishing arms to its adversaries. And is it not furnishing them with arms to employ a virus of which we are not certain?" A most interesting collection of cases was then read, in which small-pox had attacked the same individual three or four times; among others, the following, that had come under the author's own attention was narrated:— "Robert D., a tradesman living in North Audley-street, had small-pox the first time at the time of his birth, his mother suffering from it at her confinement. He was attacked with the disease a second time when a boy at school, between 9 and 10 years of age. When 18 years of age, he took it for the third time from his sister, who died of it. All the attacks were severe, but the last the most so. He lost his hair and his nails, and the skin of his feet; he was blind for several days, and his life was despaired of. However, he is still alive, and not much disfigured. He was never vaccinated nor inoculated. I believe, if again exposed to the disease, he will take it again." Cases were then adduced, to show that several members of the same family appear sometimes to show great susceptibility to take the disease. The following curious case of small-pox in the lower animals was then adduced, the author adding, that any similar well attested cases would be very valuable additions to the facts collected by the Society on this subject. "The following case was related to me by a lady of rank, on whose veracity I can place the greatest reliance. Some years ago, just after her confinement, she was seized with small-pox. It became necessary to have her breasts drawn, and, as no child could be obtained, recourse was had to a puppy, which answered the purpose. At the usual time the puppy sickened, and had the disease known by the name of the 'distemper.' It is said that vaccination, when successfully performed on puppies, will almost to a certainty prove a prophylactic against distemper." Then followed some interesting cases of individuals who could be neither vaccinated nor inoculated. The last cases adduced were of individuals who appeared to have perfect immunity from small-pox. "I have detailed the case of Robert D., who evidently possesses a strong innate susceptibilty to the action of the small-pox virus, as shown in his having already taken the disease three several times. I have now to draw your attention to a case the most directly opposite to this. Strangely, enough, it is that of his own brother Thomas. From the elder brother Robert, as well as a sister, having taken small-pox, the parents believed that all their children must take the disease, and refused to have the subject of this case vaccinated or inoculated. He was accordingly exposed when a child to the contagion, lying in the same room with his sister, while she was suffering from the disease, as well as waiting on his brother in his second and third attacks. Although since that time he has been several times exposed to the contagion, he has never felt the slightest ill effects from it." "Examples of persons possessing a natural immunity from the disease are rather numerous. Dr. Jackson, of Philadelphia, saw a man at the Small-pox Hospital, engaged in laying out and burying the dead, who had never had an attack of the disease. He had been frequently inoculated and vaccinated, but always unsuccessfully. Van Swieten speaks of a physician, 70 years of age, who had practised through numerous epidemics of the disease, but had never taken it. Diemerbrock states, that immunity from small-pox was a privilege of his family. It was possessed, he asserts, by his grandfather, grandmother, his father, and himself." The author drew the following deductions from the cases adduced:—

1. That vaccination is a most eminent protection against small-pox.

2. That when perfectly performed it is almost, and, in some instances, more protective, than inoculation or small-pox itself.

3. That it appears to render some exanthemata, *e. g.*, measles, milder than they would have been otherwise.

4. That neither vaccination, inoculation, nor small-pox, guarantees the individual, in every instance, from small-pox.

5. That small-pox attacks some persons three times, or oftener.

6. That there exist certain individuals who have perfect immunity from vaccination, inoculation, and small-pox.

7. That great susceptibility to, or perfect immunity from, small-pox, is sometimes found to be common to several members of the same family.

8. That sanitary conditions have a very powerful effect on the spread of small-pox in common with other epidemics.

CONCLUSIONS.

The author thus terminated his most interesting communication:—"It appears, from the foregoing cases and the deductions therefrom, that the laws that regulate the apparent mysteries of small-pox are as follow:—

"A. Small-pox is a disease to which almost every person is liable once in his lifetime unless protected.

"B. But there is a small fraction of the community who appear to enjoy an exemption from this law; no degree of exposure, either to vaccination, inoculation, or casual small-pox causing them to take vaccinia or variola.

"C. That there is a certain portion, on the other hand, who are, unfortunately, in the exactly opposite condition. These individuals, whose systems appear to present a soil peculiarly favourable to the development and spread of small-pox virus, are eminently susceptible of the disease. It is to this class that belong those persons who have repeated attacks of variola, who take small-pox after being inoculated or vaccinated. I believe that for such persons there is no safety but in repeated vaccination.

"D. And, lastly, that between this latter class and that favoured portion of the community that possess perfect immunity, there exists every shade and degree of susceptibility.

"These laws explain the apparent inconsistency respecting the protective powers of vaccination. In this view, all those individuals, forming an enormous majority of mankind, who possess an ordinary moderate degree of liability to small-pox, are completely guarded against the activity of small-pox virus either by perfect vaccination, inoculation, or small-pox; while others, who have a much greater susceptibility, will neither be protected by one or other of these expedients."

Mr. Pilcher said that he was able to bear testimony to the strong contagious influence exercised by the bodies of individuals having died from small-pox on those who had touched or dissected them. Two gentlemen, pupils of his own, caught small-pox from touching a young subject which was brought into the dissecting-rooms of the Charlotte-street School of Medicine, covered with variolous pustules. One of the gentlemen thus attacked had previously been vaccinated, and in him the disease manifested itself mildly; the other had been inoculated; he, however, suffered severely. The subject from which these gentlemen caught the disease was afterwards immersed in hot water, and subsequently dissected, and, curiously enough, not one of the dissectors caught variola,—a circumstance which would almost seem to indicate that the contagious power of the disease had been destroyed by the action of the hot water. With reference to small-pox occurring after vaccination, he had that day visited a medical man whose child, twelve months old, had just sickened with small-pox, although vaccination had been practised with complete success when the child was five months old.

Mr. Walshe could confirm the opinion of Dr. Lewis, that the possibility of effecting a second vaccination increased in a proportion corresponding to the time which had elapsed from the first vaccination. He had been sometimes obliged to revaccinate, but nearly always when the first vaccination had been practised early in infantile life; and he felt sure that as the period of the vaccination became more and more remote, so the constitution became in many cases less and less subject to its influence, and at length again acquired a complete susceptibility for variola. From personal observation he was disposed to believe that this inclination to shake off the influence of vaccination and renew the liability to small-pox was exhibited with greater strength after puberty than before it.

Mr. Vere Irving observed that reference had been made by the author to the analogy between the small-pox as it affected man, and the distemper to which dogs were liable; and it had been stated that dogs did not take the distemper after having been vaccinated. He believed this statement to be correct; for, having had considerable experience in the rearing and management of greyhounds, he was able to say, that he had never seen a greyhound pup which had been successfully vaccinated attacked with the distemper. It was, however, excessively difficult to vaccinate these animals; he had tried in several places, but had never found it succeed except at the inside of the lower lip, and even there it frequently failed. He would observe, with respect to the influence of particular localities in producing or favouring the spread of small-pox, it might be interesting to know that in dogs the distemper certainly showed itself more frequently in some localities than in others. At a certain season of the year, it was the custom to break up the kennels, and place the dogs under the care of the various farmers in the vicinity, and it was found that at some farmhouses the dogs were much more liable to distemper than at others.

Mr. Charles Cochrane thought the information contained in the paper, concerning the influence of malaria and unhealthy districts in originating small-pox or favouring its diffusion, of the utmost value. Not being a medical man, he was perhaps accustomed to look at contagious diseases in an unprofessional way; but it certainly appeared to him, that cleanliness and removal of the sources of malaria by proper drainage and ventilation were the most efficient preservatives of health with which they were acquainted. There must be an originating cause for every disease, and there was no reason to believe that the cause which first brought small-pox into existence had ceased subsequently to reproduce it; and when they saw how much noxious effluvia and bad ventilation contributed to the spread of fever and cholera, it was not unreasonable to consider that the same causes enhanced the virulence, or favoured the propagation of small-pox, and that by the proper enforcement of sanitary precautions, small-pox might be greatly controlled, if not entirely extirpated.

Dr. James Bird thanked Dr. Waller Lewis for the very able paper which he had read to the Society. The numerous facts contained therein, and the sound inductions which had been drawn from them, were proofs of the industry and judgment with which the author had applied himself to the subject. From large experience in India, he was enabled to confirm the views set forward in the paper. The author had collected numerous cases, and had shown by these cases that the contradictory results which vaccination occasionally furnished could be satisfactorily explained by the peculiar susceptibility of one class of individuals, and by the hardihood of another—by the ineffectual manner in which vaccination had been originally performed, or by the length of time which had elapsed from its first reception. He entertained no doubt that small-pox might have a local origin, as both Mr. Cochrane and Dr. Lewis believed. Dr. Graves, in his published lectures, had shown that poisonous influences might be generated spontaneously, by which eruptive disorders of the skin might be produced, and he believed that small-pox occasionally began in a similar way. While in India, he had observed instances in which he considered the disease had been produced and propagated in consequence of the presence of malaria.

Dr. Snow thought there was no evidence to show that small-pox was ever communicable in the present day except by contagion. The absence of any obvious sources of contagion was no proof of the spontaneous generation of the small-pox poison. It was not unusual to see remarkable accumulations of insect or vegetable life whose appearance they could not account for, but it was not customary to regard them as spontaneously generated. It was well-known that the germs of both animal and vegetable matter might remain a long time without exhibiting any signs of life, and he thought that the small-pox poison might slumber long in the system before awaking to activity. There was, he believed, no recorded instance of small-pox ever having manifested itself spontaneously among the inhabitants of an island; its first appearance in such localities could always be traced to contagion, and, from these and similar facts, he thought they might conclude that small-pox was invariably communicated by contagion, and certainly every instance of its occurrence might be thus satisfactorily explained.

Dr. Gavin Milroy observed, there was reason to believe that small-pox might remain for some time dormant, even when there was every reason to conclude it had been propagated by contagion. He would relate some particulars in proof of this statement. A vessel, having on board a number of negro emigrants, sailed from the coast of Africa for Jamaica. While on the voyage, three of the negroes sickened with small-pox, one of whom had been previously vaccinated. In one the disease was fatal. On arriving at Jamaica the vessel was subjected for fifteen days to quarantine regulations, during which time no fresh case occurred. The negroes were then put ashore, and it was not till two months after the date of the last case, which happened on shipboard, that the disease manifested itself among the emigrant negroes who had landed, and spread from them all over the island, whose population it ravaged for six months. It was proper to remark, that prior to this outbreak of small-pox varioloid eruptions, especially chicken-pox, had prevailed in Jamaica, and throughout the West India Islands; and he thought this circumstance should not be overlooked, as in all these cases it was highly important to study the character of the prevailing affections, as well as to investigate the sources of contagion from whence the variola might have proceeded.

Mr. Jakens related some cases in which the small-pox appeared to originate spontaneously, since no source of contagion was apparent.

Dr. Finch quite agreed with the French Academy of Medicine in denying the possibility of inoculating cows with small-pox, and then producing vaccinia with the matter taken from a cow thus

inoculated. Experiments of this sort have been tried in India, and, at length, after several failures, a physician there reported that he succeeded in inoculating cows. The general opinion of the profession in India was, however, that the disease from which the cow suffered was not a genuine example of small-pox, but only a pustular affection. Subsequently these experiments were repeated by another Medical man, who succeeded in producing a pustular disease in the cow from inoculation with small-pox; and, having done this, he vaccinated a child with the matter furnished by the cow; the child, however, did not take true vaccinia, but suffered severely from a pustular disease. Not content with this, the practitioner vaccinated his own child, who died in consequence of the severe disease that followed; and, since that time, the Profession in India had been disposed to believe that a dangerous pustular disease might be given to the cow by inoculation, and transferred to the human race, but that true small-pox and vaccinia could not be thus propagated. He (Dr. Finch) confessed that positive evidence was worth a great deal more than negative, but in this instance the positive evidence was so slight and dubious compared with the negative, that he was disposed to rely on the latter rather than the former.

Dr. Lewis denied that the positive evidence on the possibility of producing small-pox in cows was so feeble. He thought that the patient and carefully conducted experiments of Mr. Ceely, which had been published in the *Provincial Medical Journal*, were deserving of credence, and because the Academie de la Médicine had failed to accomplish what Mr. Ceely had accomplished, they were not, therefore, entitled to deny the possibility of communicating variola to animals. Without doubt the experiments were difficult, and had often failed; and, moreover, various pustular eruptions had in many instances resulted from the proceeding; but Mr. Ceely had succeeded also in obtaining genuine varioloid pustules after inoculating cows, and vaccinia had been produced in children by the matter procured from such pustules. This was positive evidence of a tolerably decisive character, and it appeared to him a highly unphilosophical mode of argument to doubt the results of careful investigations, simply because those results had not yet been verified by subsequent experiment.

The Society adjourned at the usual hour.

Mr. Grainger's paper "On the Influence of Noxious Effluvia on the Origin and Propagation of Epidemic Disease," will be read at the next meeting of the Society, on the first Monday in February.

MEDICAL NEWS.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, January 6, 1853:—

Ayling, William Henry, Portsmouth.
Tucker, John Dunning, Sheepwash, Devon.

APPOINTMENTS.

Naval.—Assistant-Surgeons William F. MacClinton (1849) and George V. M'Donogh (1849) to the Cumberland, 70, flag-ship on the North-American and West Indies station. Acting-Assistant-Surgeon William H. Carter (1852), borne on the books of the Impregnable flag-ship at Devonport for service in a naval hospital, to the Cumberland.

Military.—3rd Foot: Assistant-Surgeon David Stewart, from the 41st Foot, to be Surgeon, vice Batt, removed to the 14th Foot. 14th Foot: Surgeon Edgar Dumaresq Batt, from the 3rd Foot, to be Surgeon vice William Wallace, M.D., who retires upon half-pay. 41st Foot: Acting-Assistant-Surgeon James Lamont, M.D., to be Assistant-Surgeon, vice Stewart, promoted in the 3rd Foot. 55th Foot: Assistant-Surgeon Ethelbert Henry Blake, M.D., from the Staff, to be Surgeon vice McGregor, who resigns. Hospital Staff: Acting Assistant-Surgeon Thomas Knox Birnie to be Assistant-Surgeon to the Forces, vice Blake, promoted in the 55th Foot.

Militia.—King's Own, 2nd Staffordshire: Benjamin Miller, Esq., to be Surgeon.

Western Dispensary, Bath.—Mr. John Barrett, F.R.C.S., has been elected Surgeon to this Institution.

The Microscope.—We have frequently pointed out the advantages arising from an employment of the microscope to all persons engaged in scientific investigations. To the medical practitioner, in particular, it will be found of great benefit, inasmuch as from accidental circumstances, and from patients frequently introducing foreign substances in their ejecta, for the purpose of deceiving the professional man; and, unfortunately, the deception is too frequently successful, from the inability of the physician or surgeon to investigate the case microscopically. We are again reminded of the importance of a microscopic education, by reading an elaborate paper by Dr. Lionel Beale, in the "Microscopical Journal," on the importance of recognizing substances of extraneous origin when they occur in urine, and of distinguishing them from those bodies which enter into the composition of urinary sediments. The author states, that, among many substances found in urine, the most important which had fallen under his notice, were human hair, cats' hair, blanket hair, coloured worsted, fibres of wood, starch globules, house sand, oil globules, etc. One specimen which had been sent to Dr. Todd for examination, was found to contain several white bodies, about half an inch in length, which, upon microscopical examination Dr. Beale found to contain tracheæ, and they ultimately proved to be larvæ of the blow-fly, although it had been stoutly affirmed that these had been passed by the patient. In another case, a man had been endeavouring to impose on his medical attendants some urine, in which was found a thick, bright red deposit, which, on analysis by Mr. Taylor, was found to consist of sesqui-oxide of iron, which of course had been placed there by the patient. We recommend the perusal of this paper to our friends.

St. George's Hospital.—A valuable addition has been recently made to the pathological museum of St. George's Hospital, for which the Governors are indebted to the liberality of Mr. Cæsar Hawkins, one of the surgeons of that Institution. The collection now presented to them consists of nearly 600 preparations, illustrative of some of the rarest forms of disease that come under the notice of the surgeon; and the value of this gift is greatly enhanced by the circumstance of its being accompanied by a catalogue, in which each preparation is separately described, in connexion with the history of the case of which it is an illustration.

Botanical Society of London.—At the ordinary meeting of the Society, on the seventh inst., J. D. Salmon, Esq., F.L.S., in the chair, a paper was read by Mr. Moore, "On the occurrence of Asplenium Viride in a quasi-spontaneous condition, near Brighton."

Western Medical and Surgical Society.—At a recent special meeting of the Council, Dr. James Arthur Wilson was unanimously elected President of the Society in the room of the late Dr. Mantell.

Dover Hospital and Dispensary.—At a numerous meeting of the Governors of the above hospital held on the 4th inst., Dr. Baird, late of Ipswich, was unanimously elected one of the physicians to that Institution.

Public Testimony of Respect to a Medical Practitioner.—A most pleasing mark of respect towards one of our medical brethren was exhibited last week in the town of Ringwood. A valuable service of plate was presented to Mr. Samuel Dyer, as a mark of the estimation in which that gentleman's private and public character is held. All the principal inhabitants of the town subscribed towards the testimonial, the list being headed by the Vicar. This token of esteem is the more gratifying, as the recipient is a very young man, having practised in that town only seven years.

Her Majesty's Ship Dauntless.—According to a statement made by the Admiralty, the following number of men and officers have been attacked with fever on board the Dauntless, stationed at Barbadoes, from 8th Nov. to 6th Dec., 1852:—Total number of sufferers, 119; of these, 46 died, 34 recovered, 28 still remain in hospital, and in 11 cases the result is not mentioned. About 12 of the number were affected with yellow fever.

Comparative Fecundity of the White and Black Races.—Mr. Pendleton has collected from the district of Georgia, and published in *L'Union Médicale*, the following statistics, the women being from 30 to 40 years of age:—

Colour.	Number Married.	Number of Children Born.	Proportion to Each.
White	587 ..	1207 ..	2·05
Black or Mulatto	986 ..	2392 ..	2·42

The same gentleman observes, that it is among the white race that he finds the greatest proportion of those diseases which produce sterility, as is shown by the following Table:—

Morbid State.	Among the White.	Among the Black.
Dysmenorrhœa	30	14
Menorrhagia	16	10
Prolapsus of Uterus ..	26	9
Amenorrhœa	23	9
Leucorrhœa	11	6

MORTALITY NOTABILIA.—The total number of deaths registered in the Metropolitan districts in the week that ended last Saturday was 965. In the ten corresponding weeks of the years 1843-52 the average number was 1145, which, if raised in proportion to the increase of population during these years, gives a mortality of 1260 for the present time. Therefore the deaths returned last week exhibit a reduction of 295 on the estimated amount. The present return shows that 487 males and 478 females died last week, and of these deaths 432 occurred under 15 years of age, 319 at 15 and under 60 years, and 209 at 60 years and upwards. As regards the causes to which the 965 cases are assigned, the epidemic class numbers the largest proportion—namely, 206, though this falls below the average of corresponding weeks; and the next in numerical results are "diseases of the organs of respiration," to which only 174 deaths were referred last week. The mortality of the latter class is lower than in any corresponding week since 1840, the numbers in this period ranging from 183 to 429, and is less than the corrected average of the ten corresponding weeks by 124.

Meteorology.—At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·485 in. The mean temperature of the week was 45·3°, which is 9·7° above the average of the same week in thirty-eight years. The mean daily temperature was much above the average on every day of the week. It was highest on Sunday, when it was 48·9°, or 12·6° above the average.

DEATHS *in the Metropolis for the week ending Saturday, January* 8, 1853.

CAUSES OF DEATH.	JAN. 8.				Sum of Ten Weeks.
	0	15	60	All Ages.	
ALL CAUSES	432	319	209	965	11453
SPECIFIED CAUSES	432	318	208	958	11403
1. Zymotic (or Epidemic, Endemic, and Contagious) Diseases ...	164	28	14	206	2315
SPORADIC DISEASES:					
2. Dropsy, Cancer, and other Diseases of uncertain or variable seat ...	3	23	21	47	522
3. Tubercular Diseases	51	99	1	151	1812
4. Diseases of the Brain, Spinal Marrow, Nerves, and Senses ...	52	33	30	115	1295
5. Diseases of the Heart and Blood-vessels	1	26	16	43	439
6. Diseases of the Lungs and of the other Organs of Respiration ...	76	47	51	174	2708
7. Diseases of the Stomach, Liver, and other Organs of Digestion...	20	24	12	56	621
8. Diseases of the Kidneys, etc. ...	...	8	5	13	122
9. Childbirth, Diseases of the Uterus	...	4	2	6	104
10. Rheumatism, Diseases of the Bones, Joints, etc.	3	4	4	11	88
11. Diseases of the Skin, Cellular Tissue, etc.	1	2	1	4	18
12. Malformations	2	1	...	3	35
13. Premature Birth and Debility ...	20	7	...	27	218
14. Atrophy	22	1	...	23	157
15. Age	...	...	47	47	660
16. Sudden	7	...	...	7	77
17. Violence, Privation, Cold, and Intemperance	10	11	4	25	212
CAUSES NOT SPECIFIED	...	1	1	7	50

BOOKS RECEIVED.

Knox's Manual of Anatomy.

An Account of Bethlem Hospital. Abridged from the Report of the late Charity Commissioners. Second Edition.

Roberts on Recruiting and Recruits.

Crisp on Ulceration of the Stomach.

Crisp's Appendix on Diseases of the Blood-vessels.

Carter on Hysteria.

TO CORRESPONDENTS.

In our next Number we shall publish the Introductory Lecture delivered by Baron Liebig on the commencement of his Course of Lectures at the University of Munich.

[To the Editor of the Medical Times and Gazette.]

SIR,—The enclosed is being well circulated in this neighbourhood, no less than three in one week having been dropped into the area of a surgeon; and I have heard of many others being found by other parties. If you think it worth inserting in your valuable Journal you will oblige,

Brompton. Yours, &c. ANTI-HUMBUG.

"Independent and Self-supporting Dispensary, corner of Crescent-place and Brompton-crescent, Brompton, established for the purpose of enabling all persons to obtain Medical and Surgical assistance without loss of time. The charge to first-class patients, for advice and medicine each attendance, 2s. 6d.; if attended at their own residences, 5s. Second-class patients, for advice and medicine 1s. 6d. each attendance: if attended at their own residences, 2s. 6d. To the poor.—Each attendance for advice and Medicine, 6d.; if attended at their own residences, 1s. Mr. Staples, surgeon, etc., many years Resident Medical Officer to St. John's British Hospital, twelve years Surgeon Cupper to St George's and the Lock Hospitals, eight years Assistant-Surgeon to the London Docks, and formerly Apothecary and Dentist to the Tower Hamlets Dispensary. Teeth extracted, cupping, bleeding, and vaccination. Leeches sold and applied. Physicians' and surgeons' prescriptions accurately prepared. Attendance at all times, day and night."

Henry Campbell, Deptford.— Apply to an hospital or dispensary. The symptoms probably indicate a polypus of the nose.

Mr. W. F. Barlow.—Your request shall be complied with.

M.D.—The latest work on the subject is that of M. Bouchardat, entitled "Du Diabète Sucré, ou Glucosurie, et son Traitement Hygiénique." It was published in Paris last year.

Mr. D. Bennett.—Sir James Graham was Home Secretary when he undertook the subject of Medical Reform some eight years ago. In reply to your second question, refer to Hansard's Parliamentary Debates of the date alluded to.

A Subscriber.—The College of Physicians are about to apply for a new Charter, but whether they will do so this session or not we cannot say.

Alpha, Brighton.—We are much obliged to you for the communication. Any further information from our correspondents regarding "Indecent Advertisements" will be thankfully received.

Un Malade Imaginaire.—Avoid the impostor you name. He is not in any way qualified to practise, and his only object is to plunder his unfortunate dupes. By putting yourself under the care of a respectable medical man you will very soon be cured.

A Licentiate of the Royal College of Physicians.—Every chemist and druggist should undoubtedly possess a copy of the last edition of the "London Pharmacopœia," and ought to know the alterations which were made in the names of various preparations by the College of Physicians in 1851, when the book was published.

A Constant Reader of the "Times."—The advertisements of the surgeon alluded to have not escaped our observation. We agree with you in entirely disapproving of them.

[To the Editor of the Medical Times and Gazette.]

SIR,—Will some one of your Correspondents who holds the office of coroner (in the neighbourhood of his residence) mention the names of the books necessary to be consulted by any one likely to hold a similar office; I mean over and above the usual works on jurisprudence?

I am, &c. G. H.

[To the Editor of the Medical Times and Gazette.]

SIR,—I was interested by reading in your Journal of 1st January, a notice of the plan adoped by Mr. Startin in the treatment of boils.

I have found that painting the spot, just when the boil is commencing, with tincture of iodine, night and morning, almost invariably cuts it short. The inflammation and hardness rapidly subside. Of course, at the same time it is necessary to attend to the secretions, and, generally speaking, to give tonics.

I am not aware whether the suggestion I have given is novel; but I am assured that it has only to be tried to be appreciated.

I am, &c. D. H. G.

A General Practitioner. — The Practice of making a tender for yearly attendance upon a family is quite legitimate and professional, and our Correspondent need not fear to incur any odium by so doing.

An Original Subscriber.—A person is not eligible as medical officer to a union unless he hold the diploma of the College of Surgeons and the licence of the Apothecaries' Hall.

J. B. (Chelsea) —Mr. Alexander Walker, the author of books on "Beauty," "Woman," the "Nervous System," etc., died at Leith on the 7th December, 1852. His works contain much original matter, but are chiefly remarkable for the industry and research which they exhibit.

The following articles are in type, and will appear forthwith:—CASES OF COMPLICATED POLYPUS UTERI. By Dr. F. H. RAMSBOTHAM; SOME GENERAL OBSERVATIONS ON FATTY DEGENERATION. By W. F. BARLOW, Esq.: ON THE USE OF TRACHEOTOMY IN CROUP. By HENRY SMITH, Esq.

COMMUNICATIONS have been received from—

Dr. WEBER, German Hospital, Dalston; HENRY SMITH, Esq., Caroline-street, Bedford-square; Mr. G. W. NIXEY; THE PHARMACEUTICAL SOCIETY; E. COUSINS, Esq., Camden-road Villas; Dr. EDWARDS CRISP, Parliament-street; W. F. BARLOW, Esq., Westminster Hospital; Dr. SNOW, Sackville-street; Dr. INMAN, Liverpool; Dr. PITMAN, St. George's Hospital; Dr. BENCE JONES, St. George's Hospital; Dr. F. H. RAMSBOTHAM, Portman-square and the London Hospital; Dr. MCWILLIAM; Dr. R. D. LYONS, Dublin; W. STEDMAN, Esq., Havant; Dr. E. G. CROOKE, Leyland, Lancashire; Dr. DICKSON, Hertford-street, May-fair; Dr. SEATON; ANTI-HUMBUG; Dr. BAIRD, Dover; JOHN PROPERT, Esq., New Cavendish-street; Dr. MURPHY, 112, Sloane-street; JOHN BARRETT, Esq., Bath; THE HONORARY SECRETARY OF THE EPIDEMIOLOGICAL SOCIETY; THE GEOLOGICAL SOCIETY; G. F. B. WILLINO, Esq., Hampstead; OXONIENSIS, ON MEDICAL NOMENCLATURE.

ORIGINAL LECTURES.

ON THE STUDY OF THE NATURAL SCIENCES.

AN INTRODUCTORY LECTURE

TO THE

COURSE OF EXPERIMENTAL CHEMISTRY,

IN THE

University of Munich,

FOR THE WINTER SESSION OF 1852-53.

By BARON VON LIEBIG.

Permit me, gentlemen, at the commencement of my first lecture in this University, to offer a few remarks upon the nature and importance of experimental chemistry.

Experimental chemistry is essentially an elementary science, which presupposes no knowledge of chemistry; its principal object is to make the student acquainted with the foundations of the science, with things themselves, their nature and properties, and with certain powers of nature. You ought by its assistance to gain the facility of solving certain questions, each one in his own department.

Experimental chemistry is distinguished from applied chemistry. Applied chemistry is called technical chemistry when it applies the foundations of experimental chemistry to the attainment of certain objects in trade and industry; it is called physiological chemistry when the same doctrines are applied to the explanation of vital processes; and agricultural chemistry when it is employed for the advantageous production of food for man and the lower animals; in this sense we have also a pharmaceutical chemistry, a medical chemistry, a dietetic and a state chemistry.

In order to study with advantage, and to pursue with success the science of experimental chemistry, which is the foundation of all these applied sciences, it is especially necessary to exclude all that does not belong to its province, and to this category I refer even the so-called applications to other departments; experimental chemistry is to make you acquainted with the elementary forms and the properties of bodies, on which the applications depend, but it does not teach you how the applications are made.

In order that I may not be misunderstood, I will point out a very general error which many writers commit in their treatises and manuals, and many teachers in their discourses,—an error which makes the study of chemistry superficial and difficult, and deters many from its pursuit. When they describe phosphorus and its properties, they do not explain, for instance, on what principle its application to lucifer matches depends, and of what materials the combustible part consists, but they describe also the instrument itself, how the matches are planed, and how the workman proceeds in order to prepare the greatest possible quantity of matches in the shortest time. In the case of clay, which is used for the manufacture of porcelain and earthenware, they describe and exhibit how a plate or a coffee-cup is made; in the case of glass, how the workman makes a pane of glass or a beer-bottle. All this is interesting and useful to know, but it does not belong to experimental chemistry, —for the most part not to chemistry.

If we were to act in this manner, and to bring each science into connexion with its many thousand applications, and to carry out these principles to experimental chemistry, years might be spent in this way in order to bring such a course to an end, and, after all, the advantage would be but slight. An exact and fundamental acquaintance with chemical science would not be gained by these by-paths, and by the by-paths themselves no man would become a manufacturer of matches, or a glass-maker, or a pharmaceutist, or a physiologist; and while the lecturer endeavours to make his subject more interesting by interweaving applications useful in themselves, but foreign to the purpose, the eye of the student is distracted from his aim, and the chief purpose of the lecture is defeated. Chemistry is only an auxiliary science for its applications; in order to derive true advantage from it, something must still be added, and that is, the exact acquaintance with the department,—with the branch of industry, with agriculture, or with science, to which chemistry is to be applied. When the fundamental study of chemistry is preceded by an acquaintance with art, the artisan finds the applications for himself. Chemistry offers the means, and the artisan employs them like tools; and the better and the more exactly he is acquainted with the means, the more easily and the more completely does he attain his purpose. Chemistry teaches the nature and constitution of the tools, but treats of their use only for purely chemical purposes.

In experimental chemistry, therefore, the conditions, for instance, of the production of sulphuric acid and acetic acid ought to be taught, not the manufacture of oil of vitriol and of vinegar; the properties of the food of plants and animals should be taught, together with the conditions of their growth, not the nutrition of organic beings; the component parts of vegetable and animal structures, not their wonderful co-operation for the maintenance of the vital function.

Permit me, before introducing you into the territory of a science, the boundaries of which are as extensive as the world itself in which we live, to say a few words upon the paths which must be trodden in order to reach this territory, as well as upon the means which must be applied, in order to obtain it as our own possession, to cultivate it, and to derive advantage from it.

The paths which lead to this territory are those which we choose in order that we may become acquainted with the mental treasures of those whose thoughts are expressed in another language, by new words, and by new signs. We must make ourselves masters of their language,—we must learn the words, the signs, and the rules by which their objects and meaning are expressed,—we must acquire practice in their use.

I must premise, that, at this moment, Nature is, for the greater part of you, a book written in unknown characters, which you wish to understand, and in which you wish to read; the words, the signs, however, in which she speaks to us, are characters of a peculiar kind; they are special phenomena with which you must become acquainted You may consider a series of these appearances, which come into view by the juxta-position of a small number of bodies with others, as a kind of alphabet by which you may decipher the book. The names of things or substances, which you will hear, are without value for the understanding, if you neglect to make yourself acquainted with their meaning. So, for instance, the name "air," or "atmospheric air," is for the chemist an abstract of properties; no mortal eye has ever seen a particle of air; for sight pre-supposes certain effects upon the eye, and certain properties which are wanting in an air-particle; but it possesses other properties, which chemistry brings into observation, and by these other properties, the chemist not only recognises the presence of air particles where no other man could recognise them, but he also shows, that this invisible and impalpable matter is composed of several equally invisible analogous materials; and he succeeds, by a close acquaintance with their properties, in separating them from one another, in weighing them, and in making their presence recognisable to every other eye; he shows you that the gas which burns in our streets consists of five or six wholly different gases; he shows you in a constituent of the atmosphere which is employed in the process

of respiration, one of the most important conditions of animal life, and in a product of respiration the most important condition of vegetable existence; he shows you the intimate connexion of the visible with the invisible material world, of the existence of which your forefathers had no notion; and all this he does because he has learned the language of these bodies and their peculiarities, by means of visible or sensibly manifest appearances which are produced in the presence, or by the union of other substances, just as sound is developed when you strike a harp string; and they are quite as comprehensible as the black lines and written characters by which you bring your invisible thoughts before the eyes of a friend at the greatest distance. With this very peculiar language of phenomena, chemistry is to make you acquainted.

The new names which you will hear have each their proper meaning for the comprehension of natural phenomena. The names oxygen, chlorine, iodine, quicksilver, lead, must gradually become in your eyes abstracts of properties which these bodies possess, or which come to light in certain cases, just as the word church, in the eyes of him who has a correct idea of it, does not awaken only a representation of the external and internal nature of the building, but also a crowd of sentiments which have not the remotest connexion with the stone, wood, and iron of which the building consists.

If you neglect to make yourselves acquainted with the peculiar phenomena which bodies present in their relations with other bodies, a world of new ideas remains closed from your eyes.

It is necessary, at the commencement of any undertaking, to seek for new ideas in order to speak correctly in a new language. I shall endeavour to make you acquainted in the most exact manner with all the properties and peculiarities of the bodies the knowledge of which concerns you; to point out the causes which lie at the root of the occurrences which take place in inorganic and organic nature, and which serve you as the means of recognising and separating from one another the manifold constituents of the earth, of mineral springs, of fossils, and plants, and animals. Questions concerning the causes of natural phenomena, the sources of life in vegetables and animals, the origin of their nourishment, the conditions of their existence, and the natural changes to which we are subject by reason of our corporeal frame, and with which we stand in continual reciprocal relation, —these questions are so well adapted to the active spirit of man, that the sciences which afford him satisfactory answers exercise more influence than all others upon the cultivation of the mind. In this view chemistry affords to the educated man a fulness of fresh and ever-renewing knowledge, and an exact acquaintance with it exhibits itself like a new additional sense given to your corporeal senses, and which permits you to perceive innumerable phenomena which to another person would lie invisible and concealed. Chemistry leads you into the domain of the silent powers, by the influence of which all birth and all decay upon the earth are ordained, and on the operation of which depends the production of the most important necessities of the life of individuals and of states.

A simple acquaintance with the composition of bodies enables you to solve questions which, a few years since, were incapable of solution.

A field on which we cultivate for a number of years the same plants, becomes unfruitful for these plants one year in three years, one in four years, one in seven years, one in ten years, one in a hundred years; one field grows wheat, but not beans; one bears barley, but no tobacco; a third gives rich crops of turnips, but no clover.

An acquaintance with the composition of the soil and of the ashes of plants informs you why the field, by the cultivation of one and the same plant, if it receives no manure, gradually loses its fruitfulness for the same plant, why one plant thrives upon it and another perishes. Chemistry teaches us the means by which the fertility of the soil is restored.

The object of chemistry in physiology is the solution of the question, in what respect is the organic form dependent upon its constituents? and it ought to show what changes the food undergoes on its conversion into blood, and what changes the constituents of the blood experience when they are changed into the constituents of the organs.

The nutritive quality of any kind of food, the operation of medicines or of poisons, all these properties are connected with something material, and with certain elements which are the bearers of these faculties. The vital properties of an organ, or of any animal solution, are dependent upon their mixture, that is to say, upon their composition; every cause of disease is followed by a mixture and an alteration of composition. The application of medicines aims at the restoration of the original composition; their operation depends upon their composition. Quinine contains the same elements as strychnine, but in a different proportion; the one is a most valuable medicine, the other a frightful poison.

It is one of the most important problems in chemistry to ascertain how and in what manner the medicinal or poisonous properties of a substance are dependent upon its chemical composition, and in what connexion its operation depends upon its constituent parts. A remarkable step is already made in this direction, for we know with the greatest exactness that seeds, plants, roots, and tubers, which serve for the nourishment of men and the lower animals, contain certain constituents in which the same elements are found in the same relative weight as in the chief constituent of blood; that the nutritive properties of any kind of food are dependent upon the amount of these constituents; and that all which we call food must contain one of these substances if life is to be maintained by its means. But since the nutritious properties of the food of man and of the provender of beasts are determined by substances of a definite, unchangeable composition, the conclusion is almost certain, that the medicinal properties of cinchona bark, of opium, etc., and their operation upon the nervous tissue, the brain, and the spinal cord, are dependent on causes similar to the operations which the constituents of food exert on the apparatus by which the formation of the blood is effected.

Modern chemistry has in these respects made the most remarkable discoveries; it has shown that in the muscular system, and in the spleen, substances are present which do not exist in plants, but which, according to their constituents, and their composition, are extremely similar to certain constituents of tea and coffee, of cinchona bark and of opium, —so similar, indeed, that scientific chemistry places the organic bases developed in animal bodies near those which exist in plants, and ranks them together in one class. Chemistry has at last succeeded in producing artificially a principal product of animal life—urea, with all its properties out of its elements exterior to the body. After these discoveries, the organism offers indeed to the experimentalist enough that is not comprehended, but nothing that is incomprehensible.

We know now that chemical powers take an essentially definite part in all the processes of life, and that it is possible, through chemistry, to arrive at more certain means of cure. Yes, we shall succeed, in conjunction with anatomy and physiology, in unveiling the wonders of the living body, and obtaining a true insight into the processes of life. You are all invited, gentlemen, to take part in these investigations, or to derive advantage from the applications of chemistry; but you cannot do this if you do not endeavour to follow me in the path on which I am called to conduct you.

I beg you to observe you are hearing new words, you must learn their meaning. I show you the properties, the behaviour of a body; you must incorporate it with your memory; it is in most cases not the word which here concerns you, but the phenomena which are associated with the word.

Believe me, believe one who has an experience of almost thirty years, and a close acquaintance with the history of natural science, that when a naturalist succeeds in enriching human life by his investigations, he does so by means of a method of inquiry. It is from this, it may be said, that those extraordinary advances have proceeded which trade, industry, mechanics, and natural history have made during the last fifty years. These are the paths of perception and investigation which we owe to Francis Bacon and Galileo, which a false philosophy for centuries had expelled from medicine and natural science, but which have ever been gaining more ground by their triumphs in the interest of humanity. The German natural philosophy we may reflect upon as a withered tree which produced the fairest leaves and the loveliest flowers, but no fruit. With an endless expenditure of intellect and penetration, images alone were constructed, but even the most glittering colours are, as Göthe maintained in his Treatise on Colours, only a dim and feeble light. But we wish and seek for the full, pure light, the light of truth.

For a thousand years mankind have been endeavouring

to explain natural phenomena, but the explanations of the philosophical schools, from the time of Aristotle to the present day, have with ours nothing more in common.

The cause of the fall of a body, says Aristotle, is gravity; but gravity is the effort existing in a body to move downwards, (the effort to fall.) A stone falls because it is heavy; that is to say, because it has a tendency to move downwards; that is to say, because it falls. Opium produces sleep, because it is a body possessing a soporific property; that is to say, because it produces sleep. The caustic properties of burnt lime originated from a caustic principle. The sour taste of acids depended upon their containing the universal acid. To that which was seen in operation a word was applied, and this word was called the cause, and this cause explained the operation. An entity gave colour to gold, an entity gave it immutability. In order to change quicksilver into silver attempts were made to extract the entity which made it fluid; an entity made bodies hard, an entity (the spiritus rector) gave bodies their smell, an entity (phlogiston) was the cause of combustion.

While mankind attributed the innumerable operations which were observed to numerous hidden qualities or principles, a limit was placed to the investigation of particular causes; mankind knew all that it was necessary to know.

A word performed the part of explanation, and blind faith and a thankless acquiescence in opinions wholly unproved took the place of truth. We require, indeed, understanding and experience to believe in the truth of many occurrences which we have not seen, and in a multitude of facts which have been discovered by others, but never observed by ourselves. We believe in the truth of all events, occurrences, and facts which are reported by trustworthy persons when they do not contradict the well known laws of nature, or when their operations have been remarked in any way or at any time, by ourselves or by other trustworthy persons. We believe in the existence of Julius Cæsar whom we have not seen, not merely because his contemporaries have seen him, but because his existence is proved by occurrences the operations of which were observed centuries after him in the history of mankind. But we do not believe in ghosts, although thousands of men have seen ghosts, because we know from the laws of light, that even a corporeal substance of a certain degree of tenuity, like atmospheric air for instance, cannot be seen, and because it is not possible that an incorporeal substance should reflect light, which is the chief condition of visibility. The belief which sees ghosts, gentlemen, does not belong to science; it is the worst enemy of science, because science is the death of this belief.

The discoveries of the naturalists of the present day are infinitely removed from those of former times; the natural science of our own times attaches no importance to the most acute inventions of the mind; it considers as its object an experience which can only be acquired by indefatigable labour and exertion.

When the naturalist of our time wishes to explain a natural phenomenon, such as the burning of a candle, the growth of a plant, the freezing of water, the bleaching of a colour, the rusting of iron, he does not put the question to himself, or to his mind, but to the phenomenon and the condition itself.

Gentlemen, I give you now the key to the true investigation of nature, may you become conversant with its use.

The naturalist of our day, when he wishes to explain a phenomenon, asks what precedes this phenomenon, and what follows it. What precedes he calls the cause or condition; what follows he calls the operation or the effect.

A bud or a seed precedes the growth of a plant, and we presuppose a soil; without the atmosphere, and without moisture, the plant does not grow.

Soil and atmosphere are not conditions in themselves; there are calcareous soils, clay soils, sandy soils, altogether different from one another in their nature and composition. The word soil is, as you see, a collective name for a whole multitude of conditions; the fruitful soil contains them in the proper proportions for the nourishment of plants; in the unfruitful soil, some, or all, of these conditions are wanting. In order to produce activity and fertility all must co-exist.

In the same way the word atmosphere embraces a number of conditions. The naturalist asks what these conditions are, and while he demonstrates and shows what share, in solitary or particular cases, certain constituents of the soil, the atmosphere, and the water, take in the growth of plants; he explains their growth, and the manner in which a plant increases in size, so far as it is explicable to the human understanding.

When the smith makes a rod of iron red-hot in his forge, and then draws it out, it throws out a number of sparks, and becomes covered with a black porous crust, which, by being beaten with the hammer, flies off in scales of burnt iron. Under similar conditions, oil burns in our lamps with an illuminating flame. The naturalist asks what precedes the burning of the iron or of the oil, and what it is that follows the process; what are the conditions; what the results of their combustion. The combustion of the iron and of the oil is preceded by iron, oil, air, and an elevated temperature. What is the iron? what is the oil? There are a great number of oils. The word oil is a collective name for certain vegetable or animal substances, in which three constituents wholly different in their nature are found. Of the atmosphere only one constituent takes part in the combustion.

The iron increases in weight during combustion; the air in which it is burned decreases in weight in the same proportion; the air in which the oil burns becomes heavier by the weight of the burnt oil.

The result of the combustion of the iron and of the oil is therefore clear; the burnt iron is iron which has taken into itself a constituent of the air; the burnt oil is air which has take into itself the constituents of the oil. A development of light and heat (fire), accompanied the passage of the atmospheric constituent to the iron, and the passage of the oil-constituents to the air. A principal part of the phenomenon of combustion is thus explained; and while the naturalist asks further questions, such as, Whence come the heat and light in combustion,—why the iron does not continue to burn,—why the oil in the lamp does continue to burn,—why the iron burns with sparks, and the oil with flame,—and solves these questions in a similar manner, he explains the phenomenon in its details.

The naturalist of our time explains, while he seeks for the causes which have preceded the phenomenon; the sensible, observable causes he calls conditions; the causes, which are no longer appreciable by the senses, he calls powers.

According to this method, the cause of a catarrh is not the inflammation of the mucous membrane of the nose, for this is only a definition of the word catarrh; the explanation of fever embraces in its meaning not an image or a description of the state of fever or of its symptoms, but we must know what has preceded the state of fever, and what causes it to continue. In the explanation of the respiratory process, we must know what part is taken by the air, and what part by the blood in the development of animal heat.

When the causes of a phenomenon are unknown or unexplored, the naturalist leaves the question open. If he finds iron in the blood, and lime in the bones of animals, without knowing whence they come, he does not say that they are developed by the vital process; if he cannot explain the origin of microscopical animals, he does not say that they have been created by themselves; if he finds persons dead and burned in a closed room, and cannot ascertain how this happened, he does not say that they have been burned spontaneously. This kind of explanation or conclusion he considers as self-deception, or the veil thrown over ignorance; because an explanation is a manner of making things clear, and depends upon intelligence and judgment, and because the explanation of a fact cannot rest upon a complete unacquaintance with its existence.

The acquaintance with the conditions of a phenomenon is the first and most important requisite to its explanation. They must be sought out and confirmed by observation. Skill depends upon investigation and observation, and the apt proposal of questions proves the mental power of the naturalist. Recollect how difficult it is to find an object which you have lost yesterday or a week ago. It is not the best way to find it, to proceed at once to break up the floor of your house, or to demolish the house itself, and look among the rubbish; but you are most likely to succeed, by thinking in what place you saw it last, and had it in your hands. By searching for it without thinking, you will perhaps find it; but by thinking and then searching you secure success. So then, in the investigation of the cause of a phenomenon, reflection is the only sure guide; and by

observation you recognise the sensible characters which direct your path.

There is no art so difficult as the art of observation; it requires a skilful, sober mind, and a well-trained experience, which can only be acquired by practice; for he is not an observer *who only sees the thing before him with his eyes, but he who sees of what parts the thing consists, and in what connexion the parts stand to the whole.* One person overlooks half from inattention; another relates more than he sees, while he confounds it with that which he figures to himself; another sees the parts of the whole, but he throws things together which ought to be separated. In the Görlitz case, in Darmstadt, the women who had stripped and washed the body saw neither arms nor head on the corpse; another witness saw an arm and head as large as a person's fist; a third witness (a physician) saw both arms and a head of the size of an ordinary female skull. In these statements you recognise plainly the degree of moral conformation possessed by the witnesses, and their capability of observation. Observation is like a piece of glass, which, as a mirror, must be very smooth, and must be very carefully polished, in order that it may reflect the image pure and undistorted.

The person who observes a clock, sees in it not only the pendulum swinging to and fro, and the dial-plate, and the hands moving, for a child can see all this; but he sees also the parts of the clock, and in what connexion the suspended weight stands to the wheel-work, and the pendulum to the moving hands.

Since the apparatus of the mind and the nerves forms the instrument of the mental operations of the observer, by which the impressions on which he founds his opinions are received and transmitted, it lies in the nature of things that persons whose nervous system is not in a completely healthy state are not qualified for observation; and you understand, therefore, why the new science of Od has found no admission into the domain of natural history. The discoverer of Od has himself seen and verified none of the phenomena which Od ought to produce, but they may be and have been perceived by other unprejudiced persons of sound minds and the best dispositions; his perceptive powers are not capable of describing by themselves what they see or feel; they must first be sharpened and guided by the inquiries of the interrogator, who, however, does not see the phenomena, and has never looked into their details or their peculiarity. No intelligent person can believe that by such a false method, by the phenomena of sight and feeling which may be produced in nervous and sick persons, the existence of a new power of nature can be established.

When the observer has ascertained the foundation of a phenomenon, and he is able to associate its conditions, he then proves, while he endeavours to produce the phenomena at his will, the correctness of his observations by *experiment.* To make a series of experiments is often to decompose an opinion into its individual parts, and to prove it by a sensible phenomenon. The naturalist makes experiments in order to prove the truth of his views; he makes experiments in order to exhibit a phenomenon in all its different parts. When he is able to show of a series of phenomena, that they are all the operations of the same cause, he arrives at a simple expression of their signification, which, in this case, is called a Law of Nature. We speak of a simple property as a Law of Nature when it serves for the explanation of one or more natural phenomena.

We refer, for instance, the rising of the quicksilver in the Torricellian tube, and the elevation of a balloon, to the law that air has weight. A single natural phenomenon, however, is, according to our experience, never explained by a single cause, but it depends always upon the co-operation of several laws of nature. The statement of the connexion of these laws of nature is called the theory of the phenomenon. The theory of the barometer embraces three laws of nature: *the law that the air has weight; the law that the pressure of fluids is transmitted in all directions; the law that the pressure acting in one direction, if it is not destroyed by an equal and opposite pressure, produces a movement which lasts until the equilibrium is restored.* Upon the last law, as well as upon the law that the air has weight, and upon a fourth law, that *a body floating in a fluid loses just so much weight as the fluid weighs which it has displaced,* depends the theory of the balloon. Theory is the statement of the connexion of all those laws of nature by the co-operation of which a phenomenon or an event is determined.

By the exact acquaintance with a fact or an event you are enabled to make other facts and events clear to your minds; every quality of a body gives, under certain circumstances, a key to open some closed door, but theory is the master key with which you may open all doors. You understand, gentlemen, how much the idea of a theory in a natural historical sense differs from the word theory in common use. In the latter it means generally the direct opposite of experience and practice; it often signifies the want of acquaintance with facts and natural laws. In our language, theory is the sum of all practice, it depends upon the most exact knowledge of facts and natural laws, and is produced by this knowledge. When I use here the word *practice* in opposition to the word *theory*, (which means insight,) I do not mean the practical facility of an individual in an art or a trade. A practical philosopher shows exactly to the mechanic the methods in all their details of making an exact thermometer or a barometer, how he ought to construct the tube, what quality the quicksilver should possess, without his being able himself to make a thermometer, as he has never learned glass-blowing. The practical chemist tells the manufacturer of sulphuric acid with the greatest accuracy and certainty, how much sulphur he must burn in a given stream of air which goes through the sulphur furnace, and the maximum of sulphuric acid which he ought to procure, without being able profitably to manufacture sulphuric acid himself as a tradesman; he tells the agriculturist what constituents his soil must contain in order to derive from it the greatest crop of potatoes, without knowing at what time of the spring the potatoes ought to be sown; he produces quinine from cinchona bark, without at all knowing its necessary doses for the different states of sickness; he makes the physiologist acquainted with the nature and quality of the constituents of the blood or the secretions in the healthy or morbid states of the body, without knowing anything of the phenomena of disease or their relations to the vital process. This kind of practice, which depends upon the technical application of natural laws, gives a measuring rule for the ability of the glass-blower, the manufacturer of sulphuric acid, for the experience of the agriculturist and the physician, and the discoveries of the physiologist, but the practical ability of the chemist cannot be measured by this rule. He must know practically the laws of Nature, he must know practically the means of investigating them, and the foundations of their applications; and it is, therefore, indispensable for him to be acquainted with the other branches of natural science, with mathematics, and with chemical trades.

The present means of becoming acquainted with natural sciences, the objects of chemistry, and the requisites of the chemist have now been laid before you, as I hope plainly to every one, so that no one may be mistaken as to the objects of this lecture. I will not longer trespass upon your attention by offering an extended eulogium upon the utility of chemical study. Our chief object is not utility, but science. Science is always useful, for every kind of knowledge elevates our mental and bodily powers. We study a natural phenomenon without asking for its utility; every one is not applicable or useful in life. The rainbow, which in its celestial beauty awakens agreeable sensations in every human breast, brings no direct advantage to man; but it is as good an object of investigation for the philosopher, as the attempt to make sea-water drinkable, or to preserve butter from rancidity.

If you find deficiencies in many of the developments of chemistry, you must consider that it, like all natural sciences, is in process of completion. These deficiencies will be gradually supplied; but we shall never succeed, such is the boundlessness of the domain, in making them wholly disappear. We have the advantage over the Greek philosophers in this, that we know infinitely better than Socrates did, that we, in relation to what we *might* know, know nothing. We are climbing up a mountain, and when we arrive at the summit, the comprehensive view beholds new mountains ever rising up, which at first were invisible to the eye.

Let us endeavour to place the greatest possible prospect before our eyes, and it will then be easier for us to judge correctly of the regions which lie below us, and to guard ourselves against errors and obstructions which impede our steps and weaken our powers. The domain lying below us will then become our property, on which we may sow and reap fruit for our own benefit and that of human society in general.

HISTOLOGICAL ANATOMY
AND
MICROSCOPICAL MANIPULATION.

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Lecture II.

Summary:—16. The Optical Construction of the Microscope—17. Reflexion and its Law—18. The Mirror—19. Its Use and the Action of the Lieberkuhn—20. Illustration of Refraction—21 and 22. Its Laws—23. General Action of Various Lenses—24. The Action of Lenses on Light—25. The Analogies of Lenses and Mirrors—26. The Formation of Images by Lenses—27. Spherical Aberration—28. Its Mechanical Correction—29. The Prismatic Colours—30. The Solar Spectrum—31. Chromatism—32. Achromatism—33. The Objective Glass—34. Its Value and Varieties—35. The Eye-piece—36. The Simple Microscope.

To-day, gentlemen, we shall consider the optical construction of the compound achromatic microscope.

16. This involves the elucidation of several optical laws and phenomena, which may be thus arranged :—

I. The laws of the reflection of light, and the operation of the mirror.

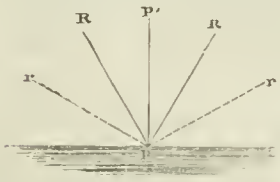
II. The laws of the refraction of light, and the formation of images by lenses.

III. The inaccuracies of these lenses, producing—
1st. Spherical aberration.
2nd. Chromatic aberration.

IV. The methods of correcting these errors—
1st. Mechanical.
2nd. Optical.

It is not my intention to give a lecture upon "optics," but simply to remind you of the general doctrines just referred to, and to illustrate their application in the optical construction of the instrument we are about to use so commonly. For minute detail in this department I must refer you to such treatises as are found in most Encyclopædias under the articles, "Optics," "Vision," "Microscope," "Micrometry," or to systematic treatises on physics generally, especially Golding Bird's "Natural Philosophy."

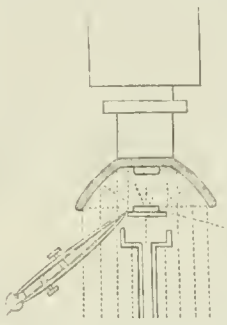
17. Reflection. When a ray of light falls upon a reflecting surface, as a piece of looking-glass or polished metal, it is turned back again, or "reflected," in a manner similar to a projectile thrown against some solid surface. The approaching, or "*incident*," ray is in the same plane with the retiring or "*reflected*" ray. If the ray of light strike the mirror in a line perpendicular to its surface, the incident and reflected rays coincide in every particular. But if the ray approach the surface *obliquely*, it is reflected obliquely; the two rays forming, as it were, the letter V with that surface, the apex being the point of contact. Now, we might bisect the angle in V, which would give two equal angles; one being called the angle of incidence, the other the angle of reflection; and the law of reflection is this, that, "THE ANGLE OF INCIDENCE EQUALS THE ANGLE OF REFLECTION."



P′ strikes the surface perpendicularly at P, and is again reflected to P′, so that the two *coincide;* but R′ or r′, striking the surface *obliquely* at P, are reflected to R and r respectively, at the same distance from the other side of the perpendicular P′ P, as R′ and r′ are on the approaching side; that is, r′ P P′ equals r P P′, or, "the angle of incidence equals the angle of reflection." Now we shall understand the action of mirrors.

18. It will be evident to you at once, that the law will hold good not only in the case of *light approaching* the reflecting surface obliquely, but also in the case of the reflecting surface being turned obliquely to the light. Look at the mirror of your microscope, it is like the hollow of a watch-glass—*concave*, (some are also plane); supposing its circumference parallel with the stage, and light to pass down the compound body, every ray of light but *one*,—the one which strikes its centre,—must be oblique to it; therefore it will pass off, or be reflected in a line different to the line of its approach. It will be found that the direction which these reflected rays take is towards the *centre of the sphere of which the mirror is but a segment;* and the point where they meet is termed the "*focus*" or fireplace of the mirror. It is the point of highest illumination. If you wish to illuminate any object brightly, you therefore adjust the mirror so as to cause this "focus" to strike upon the object. This is easily managed by the "mechanism of the mirror." (14.) The focus of *parallel* rays (sun rays) is half the geometrical radius of the sphere of the mirror; the focus of *divergent* rays (as from a near object of light) is nearer the centre of the sphere that is at a *greater distance from* the mirror; and conversely, of *convergent* rays at a less distance. Before proceeding any further, practise the illumination of an object from all common sources of light, and also by varying the plant of your instrument.(15)

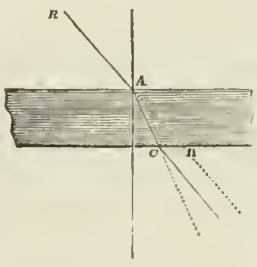
19. The mirror is used principally for the examination of transparent objects. Nearly all the structures of the body may be examined in their natural state by the light from the mirror alone. But in injected specimens, and sometimes for the sake of getting a *surface* light only upon the structures, another *metallic mirror* is conjoined with the ordinary one. This is a little cap of polished metal, fitting on the end of the objective case; its concavity is above the object, and *faces* the common mirror; in short, these become *conjugate* mirrors,—one of glass, the other of metal. The rays reflected from the ordinary mirror strike upon the concavity of the metallic mirror, not *through* the object, for that is not transparent, but around its edges, outside it, and are thence converged upon the *surface* of the structure under examination. I shall refer to the mode of illuminating opaque bodies in the course, and as they are examined; but I may state, that this method of illumination by the conjugate mirror, is useful in cases where the objectives are *so close* upon the tissue you are looking at, that it is difficult to adjust a *condensed* light from the "bull's-eye," so as to illuminate to the required extent. This metallic mirror is called Lieberkühn's condenser, after the name of its introducer. The diagram illustrates the action of the Lieberkühn.



The dotted lines represent the rays from the common mirror, which are converged by the Lieberkuhn on to the surface of the object, where the forceps are pointing.

20. Refraction.—All transparent bodies affect light according to certain definite laws, dependent upon two things—1st. On the mode in which it strikes their surface; 2nd. On their individual density. If the ray of light strike a transparent body in a line perpendicular to its surface, the light passes through the body and suffers no appreciable change; but if it strike the surface obliquely, its *direct* line is broken at the point of contact; and, though it passes through the transparent body, it does so in a slightly different direction to the one it took before coming in contact with that body. Its line of direction is *broken*, that is, "refracted."

Some transparent bodies *break* this ray of light more than others: thus glass breaks it more than air; and the observation of these and similar facts has led to the enunciation of the following laws,—namely:—



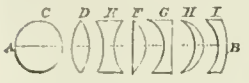
21. When a ray of light passes obliquely from a *rare* to a *dense* medium, it is refracted *towards* the perpendicular. Thus: suppose a perpendicular drawn to the surface of the dense medium, and carried on through that medium, an oblique ray of light striking the surface at the same point with the perpendicular would not pass on in the same oblique line, but in an oblique line *nearer* the perpendicular. Now, refer to the diagram.

You see the line perpendicular to the dense body, cutting it at right angles: and R is a ray striking this dense body obliquely at A.; it does not pass on to B in the direction of the dotted line, but *nearer* the perpendicular, namely, to C; that is, is refracted *towards* the perpendicular.

22. Conversely, when a ray of light passes from a *dense* to a *rare* medium, as from the glass into the air again, it is refracted *from* the perpendicular; that is, the line of light, A C, does not pass on in the course it took through the dense

medium, as marked out by the dotted lines continuous with that line, but further out from it, as in the distinct line,—that is, *away* from the perpendicular. In short, the *distinct* lines in the diagram show the direction of perpendicular and oblique rays in two media of different densities; and the same may be said of other differing media.

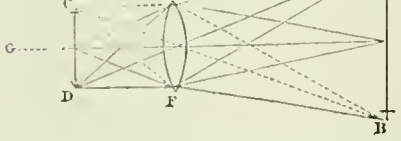
23. Attention to these two laws will enable us to understand the formation of images by lenses. All lenses are refractive media; they may be of different shapes and densities. Difference in their shape will affect the mode in which rays of light reach their surface, or leave it after having passed through their substance; that is, will alter the degree of their obliquity, (1st, 20); and difference in their density will also particularly affect their refractive power, (2nd, 20, 21, 22): some may be made of crown glass, for instance, while others are made of flint glass, the denser having more refractive power.



24. The figures marked C, D, E, F, G, H I, represent sections of all the common varieties of simple lenses. Now, suppose them all subjected to the same ray of light, and that to be emanating from the source A, the dotted line A B is the only line of light which would pass through them without being *differently* affected, as it passed through *each*; and why? because it is the only one *perpendicular* to them all: it is a *pole* round which they would all similarly revolve as around a common axis; and, in reference to any other parallel line or ray of light, as no two of these lenses have *similar surfaces*, it is the same as if the ray entered each at a different degree of obliquity.

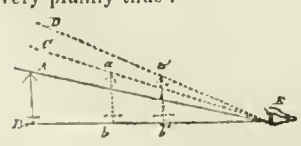
25. When a ray of light, then, is presented to a lens, it suffers refraction, and in proportion to the obliquity of the surface, as well as the density of the lens, will the amount of refraction be increased. A convex surface and a concave surface necessarily refract the line of light in different directions; the images formed by both surfaces, however, are formed on the same principle as are the images formed by concave and convex mirrors, though the images formed by lenses are formed by refraction, those formed by mirrors by reflection. Objects viewed by convex glasses are *magnified*, objects viewed through concave glasses are diminished, and this property is dependent upon the angle under which we view those objects.

26. Let us then trace the formation of an image by a simple convex lens, or a "simple microscope."



E F is a bi-convex lens, A B an arrow examined by it; the line divergent from its extremities and middle represent the numberless rays it sends off to complete the formation of the image C D (these few only being given for the sake of simplicity); the image C D is inverted on account of the lines crossing one another.

Now, it will be seen at once, by looking at these divergent lines, that the proximity or distance of the arrow A B to or from the lens E F will determine its apparent size; for upon these points will depend the distance or proximity of the *image* C D from or to the lens. The nearer the arrow the more distant the image, and, consequently, the greater *apparent* angle under which it is viewed. But the nearness of the arrow will depend upon the convexity of the lens, and is *directly proportional to that convexity*; and hence the *deeper* or more convex the lens, the larger will any object appear when examined by it. That the apparent size of the object is dependent upon the *angle* under which it is viewed is seen very plainly thus:—



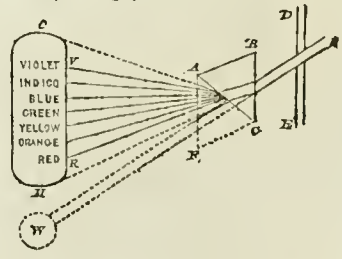
The eye at E judges of the size of the *image* A B according to the size of the angle B E A in the triangle A B E. Increase the size of the angle, as b E a or b′ E a′, and the image is apparently increased; in other words, the image may be said to form the *base* of a triangle whose apex is at the eye. Suppose the sides of the triangle, namely, B E and A E, are movable, say like sides of a carpenter's rule which opens, the eye being at the joint, any object embraced by them at their extremities would have to open them much wider as it was slided upwards to be embraced by them higher up; that is, nearer the joint, which must be opened wider and wider; that is, the *angle* would have to be increased.

27. The surface of a lens may be regarded as divided into a number of infinitely minute planes, arranged in concentric circles or zones, around a single plane in the centre. Now, if the light enter this single plane perpendicularly, it must enter *all* the other planes obliquely. The light will enter or emerge from each plane in the same circle or zone of planes, at the same angle, but from every such series at a different angle; *hence* those circles of planes near the circumference of a convex lens will have a more distant focus than those near its centre; and the result is, that the *whole* of the object will not be plainly seen at the *same time*; so that when its centre is perfectly visible, its edges are imperfectly seen, and this in proportion to the convexity of the lens; that is, it is produced by its *sphericity*, and the error is called "*spherical aberration.*"

28. Now, from what I have just said, the correction for this error is at once evident. Look at the object only through the same zone of planes; or, if through *several sets*, look at it through those only which are nearest to one another. The most convenient mode of doing this is to look through its *centre*, and the few surrounding zones or circles. Opticians have constructed a *mechanical* contrivance by which this is accomplished; they have cut off all the circumferential planes by *diaphragms* or disks of brass, through the centre of which a round hole is bored, so that all other rays of light are "cut off" or dispensed with. In the "Coddington lens," the same arrangement is observed. Whatever the size of the two surfaces of the glass, the rays of light admitted pass through the central aperture only; that is, by means of it you look through the central contiguous zones of refraction only. (27) Hence, though you necessarily *lessen* the field of your vision, you make that field *more correct* by avoiding any appreciable spherical aberration. These remarks refer principally to simple microscopes and their most perfect construction; for, with compound and *achromatic* microscopes, the correction for chromatism is at the same time a correction for sphericity or spherical aberration. What I have referred to is, the mechanical mode of correction of spherical aberration.(a)

29. Before passing on to the consideration of *achromatism*(b), one property of light must be noticed. Light, as it emanates from the sun, is apparently white, but when it falls upon certain bodies of a refractive nature and prismoid shape, it is divided or disparted into a series of colours; these are commonly known as the "prismatic colours," so called *prismatic*, because the piece of glass or similar structure through which this light passes, is of a prismoid form. Sometimes their combination in series is called the "solar spectrum," because the phenomenon is invariable when viewed under the same condition with light directly from the sun.

30. This solar spectrum has invariably the same sequence of colours; namely, from the base to the apex of the prism, the direction is as follows:—violet, indigo, blue, green, yellow, orange, red.



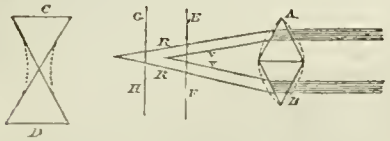
I have noticed that some persons have a difficulty in remembering the way in which the prism is held for this invariable sequence of colours. You may recollect it thus: imagine yourself holding the letter V by its apex with its side towards the light. This represents a section of the prism C A B. V is the initial of violet, and this is the first colour refracted, or "given off," so to speak, at the *top* of the prism, as figured in the diagram. The initials of the sequence of colours from this to the least refrangible ray, give the well-known mnemonic VIBGYOR. I should not have insisted upon these two points, namely,

(a) The correction in Herschel's glass is founded on optical principles, by using menisci.

(b) α χρῶμα,—no colour.

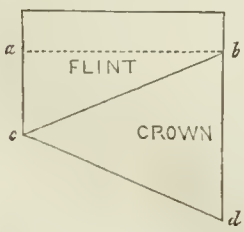
the position of the prism and the sequence of the colours, except for their importance in understanding the production of chromatism and achromatism in lenses. If another prism be reversely opposed to the first one, so as to convert the refractive medium into a quadrangular instead of a triangular form, although the light suffers refraction according to the ordinary law (21), it is not dispersed into *colours*, but all this chromatic dispersive power is lost, and the rays are *re-composed;* so that with two prisms you may show the decomposition and the re-composition of white light, as seen in the diagram; the W, representing the re-composed white light.

31. Why are the edges and surfaces of objects coloured with ordinary lenses, and why are these colours more observable with high than with low magnifying powers, and what is the order in which we see the colours in chromatic or imperfectly achromatic microscopes? A glance at the diagram will answer each of these three questions.



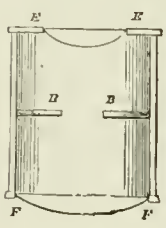
Any bi-convex lens is virtually two prisms (A and B) placed with their bases together. G H and E F are two objects in the focus of the circumference and centre, respectively, of the lens A and B, made up of the two prisms. The edges of the body examined would therefore partake of the red ray, and the surface or centre of the violet ray. The higher the magnifying powers; that is, the *thicker the prisms*, the more observable this becomes, because their refractive power is proportionably increased; and, as we alter the focus of the lens, we get a circle of violet, indigo, blue, etc., as we adjust from the centre of the lens; merging into green, yellow, orange and red, as we gradually adjust the focus for the circumference, and a reverse order of the prism adjusting from the circumference to the centre.

32. How is this chromatism, or "chromatic aberration," to be avoided? It will be remembered that the density and shape of the lens (20), may vary, and that the angle of refraction will vary in the same proportion. It is, therefore, possible to select two lenses of such different densities and shapes, and to combine them in such a way, that the over-refractive power of the one may be diminished, nay, almost neutralised, by the less refractive power of the other. To speak more popularly, *what the one adds the other takes away*. The difference in the *densities*, then, of the two glasses chosen for an achromatic combination is the chief groundwork for the correction of chromatism, (or the production of coloured bands. Thus one is made of flint and the other of crown glass, and the only cause of error in such a combination is, that these two lenses separately give different breadths to the bands of colour in the spectra produced by them individually; for each medium seems to have a tendency to develope one colour more than another. But, further, the difference in shape of these two lenses also has a tendency to correct chromatism, as will be evident from looking at the accompanying diagram in connexion with the one in Section 30. The section of the crown glass, itself a prism (31), is so coapted to the section of the flint glass, the portion, a b c, of which is another prism, that their respective positions are *reversed;* the apex of the one, c, is towards the base of the other, a c. This is virtually the *re-composition* of light, and, in connexion with the difference in the density of each lens, produces the most perfect achromatic combination(a) we possess, except, perhaps, that in which fluids are used as the refractive media.



33. This combination forms the "objective" glass of the "compound achromatic microscope." In English instruments, each objective glass is made as perfectly as possible, so that you obtain almost the full amount of achromatism possessed by the instrument by *one* objective. I say *almost* the full amount, for the remaining aberration is corrected by composition with another lens. Not so, however, with the continental glasses, (and this is, perhaps, one cause of their comparative cheapness.) In these the makers *depend* upon correcting the chromatism of one glass by each subsequent objective, (and they use several,) that is, the errors of the first are corrected in a great measure by the second, and the remaining source of error by the third, etc. I said we had English microscopes corrected in this way, but not totally *dependent* upon this style of correction, *each* objective having been made as perfectly achromatic as possible before it has been combined with another.

34. The objective is the most expensive part of the achromatic microscope. It is also the most important part, —improvement in the construction of objective lenses is the basis on which all improvement of modern miscroscopes is founded,—and gave the first impulse to the study of Modern Histology. An increase in the powers of the objective increases their expense; they are variously spoken of as the "one-twelfth," one-eighth, one-fourth, and one-half; but these will be referred to under "micrometry." It would, however, be much more satisfactory if this style of nomenclature in reference to measurements were done away with, because the quarter, one-twelfth, one-eighth, one-half, of every maker differ as to *real* measurement, or an absolute standard. In short, a uniform standard of comparison for the sizes of micrometric objects is one of the greatest desiderata in histological science. We shall refer to this specially in a supplementary lecture upon micrometry.



35. The eye-piece consists of an *ocular* and a *field-glass;* the field-glass is so called on account of its enlarging the field of vision, being, in fact, the means of *limiting* or bounding this field. The ocular is so named from its position in reference to the eye. These two lenses (or simple microscopes) have their convexities directed in the same way, and generally towards the objectives, as seen in the diagram, which represents a Huyghenian eye-piece, one of the most approved forms; EE is the ocular, FF the field-glass, and BB a diaphragm for cutting off circumferential rays of light. (28)

When this eye-piece is used the image is formed near the diaphragm.

Being perfectly satisfied with your *objective* glass, you may alter the size of the image it produces by using different eye-pieces of greater or less magnifying power, or by drawing out the tube of the same eye-piece so as to lengthen the distance between the *field-glass* and the objective. Two eye-pieces are in ordinary use, namely, the common one and the *deep* one, the deep one being the more powerful of the two. As a rule *use* the lowest eye-piece with which you can manage, for reasons hinted at in the first lecture. (4)

36. The SIMPLE MICROSCOPE is a most useful adjunct to the compound. It may of course be obtained achromatic, but, for ordinary purposes, a good Coddington lens is sufficient. A mechanical adaptation of this lens has lately been constructed by Mr. Pillischer, which every medical man should possess. It is so satisfactory for common diagnostic purposes, that I think a special notice of it is only due to its inventor. It is so simple, compact, and small, that it may be carried about as easily as a snuff-box,—in fact, it is not larger than an ordinary snuff-box. It consists of a stage a little larger than the common slides used for stage-glasses, in connexion with which are two springs, which press against the stage-glass and keep it firm; an adjustment moving like the fine adjustment, and operating solely on the lens; a mirror and a diaphragm attached to the stage. You can see epithelium with this instrument distinctly; it will therefore be sufficient for most ordinary purposes. It can be obtained for 32s. from Mr. Pillischer, with three Coddington lenses. It is called "Pillischer's lenticular,"—a name, I believe, suggested by Dr. Golding Bird.

It will be observed, that the admirable plates of Golding Bird's Natural Philosophy, and Fownes' Chemistry, as far as they bear upon this subject, have been freely used. Original plates will be introduced whenever the subject demands it, as in the present lecture.

(a) In such a combination the violet and red rays are totally destroyed, and the intermediate rays only very slightly seen.

ORIGINAL COMMUNICATIONS.

CASES OF COMPLICATED POLYPUS UTERI.

WITH REMARKS.

By FRANCIS H. RAMSBOTHAM, M.D., F.R.C.P.
Consulting Physician in Obstetric Cases to the London Hospital.

(Continued from page 14.)

The term "polypus uteri" has been given at different times to organic diseases of the uterine structure, as well as to formations within the uterine cavity of very various and dissimilar kinds; and even now, though it is restricted to tumours attached by vascular connexion to the uterine substance, the phrase is applied to more than one variety of morbid growths. Some are dense, firm, and compact in their structure; some soft and cellular; some of a florid scarlet; some of a deep peony colour; and some, when removed, almost white. They take their origin also from different parts of the organ,—the fundus, the body, the internal channel of the neck, or the outer circle of the mouth itself.

Dr. Lee, in his essay in the nineteenth volume of the "Medico-Chirurgical Transactions," has noted four distinct species of polypus uteri, none of them malignant in their nature;—the fibrous;—the follicular or glandular, which he describes as a morbid enlargement of the *glandulæ Nabothi;* and which, consequently, are situated only at the mouth or neck;—the cystic or cellular, made up of a congeries of small vesicles or cysts, containing a fluid more or less transparent, and yellowish in colour. This variety is formed just beneath the lining membrane of the uterus, and springs from every part of the cavity. The tumour is highly vascular; and the cysts composing its chief bulk are bound together by fine fibrous tissue;—and, lastly, the mucous, which does not grow to so large a size as either of the others, and which seems to be produced by a morbid change in the mucous membrane itself, and to be analogous to the polypous tumours sometimes formed within the nose and other mucous cavities.

Of these the fibrous polypus is certainly the most common; and by some pathologists itis regarded as the true fleshy tubercle, specimens of which are so often met with embedded within the uterine walls, or projecting as nodules into the peritoneal cavity, or attached to the external surface of the organ by processes more or less slender, and invested by an extension of the peritoneal membrane. It is supposed, that, if these tubercles are deeply embedded within the uterine tissue, they merely increase the size of the organ, and give an irregularity to its form; but that, if they are situated nearer to the mucous membrane, they project towards the cavity, carry a layer of uterine fibres, as well as an extension of the mucous membrane, before them; and in their growth, encroaching more and more upon the cavity, assume the pear-like shape peculiar to most polypous tumours; and, finally, dilating and passing through the os uteri that they gradually protrude into the vagina, until their chief bulk is enclosed within that canal.

Gooch, in speaking of the fibrous polypus, says, that "their internal structure in most cases exactly resembles the internal structure of the large white tubercle of the uterus, commonly called the fleshy tubercle;" while Baillie says, that "a person looking on a section of the one and the other could not distinguish between them."

In a paper by Mr. Pollock, read before the Medico-Chirurgical Society on January 13th of last year, that gentleman stated that the records of St. George's Hospital show, that out of 39 cases of fibrous tumours of the uterus, 38 were connected with the walls of the uterus, either embedded within them or pendulous therefrom, and one was attached to the cervix uteri; that in one case two tumours projected into the cavity of the peritoneum, and, being only connected to the uterus by thin, long pedicles, were readily moved in the abdominal cavity; while eleven projected into the cavity of the uterus. In six of these latter the tumour was single; one was very large and without a pedicle, and three were pendulous. In five of the cases where the projection was internally, there was more than one tumour, the others being embedded in the uterine substance; and two of them, having protruded through the os uteri into the vagina, were extensively ulcerated. All these eleven tumours would be classed under the generic term of polypus; and, whether we consider every fibrous polypus a variety of, and identical with, the fleshy tubercle or not, this table, as well as other observations, proves that the true fleshy tubercles of the uterus do actually not unfrequently protrude internally, as well as on the outer surface, appearing even as a tumour in the vagina; that sometimes they are connected by a narrow neck to the uterine structure; and that at others they merely bulge as it were inwards, carrying the mucous membrane which lines the uterus before them, a great portion of their substance continuing still embedded within the uterine parietes. Under either of these circumstances ulceration is liable to take place in their investing membrane, hæmorrhage to occur, and indeed all the symptoms that usually accompany polypus may be developed in succession. If they are attached by a pedicle they form one species of polypus, and may be removed by the same means that would avail us in the treatment of that disease; if their base is broader and deeply seated in the uterine walls, they are not so much under command; and it is most likely that in time they will destroy life by giving rise to hæmorrhage and other debilitating drains. I believe the three following cases to have been instances of large fleshy tubercles projecting into the cavity, and passing through the mouth of the uterus into the vagina; and I have selected them for publication, because they each possessed some features resembling the others.

Case 20.—On Wednesday, February 9, 1831, my opinion was sought for Mrs. G——, Tysson-street, Bethnal-green, aged 38, who had borne three children, the youngest fourteen years before, and who had not been pregnant since. For three years she had suffered from very profuse and painful menstruation, with discharges of coagula; and for the last eight months had seldom been free from hæmorrhage, which possessed a fetid smell. A week before I saw her, she was seized with spasmodic bearing-down pains, and on the Friday a fleshy mass protruded through the vulva; this had remained external ever since; it was more than three inches in length, of the same thickness throughout, about that of four fingers, and it extended within the os uteri, which was so high that it could only just be touched. That part external to the body was dark in colour, putrid, and shreddy; the lower portion of the mass lying in the vagina was also putrid, and easily broken down; but higher up towards the os uteri, the tumour felt firm, and had evidently not undergone the sloughy process. The vagina was tender, and felt smooth and polished. The uterus could be distinguished above the pubes, large and irregular on its surface. Thinking the tumour would separate more quickly if a ligature was placed round it, I tied it on the 10th, close to the os uteri; tightening the ligature gave no pain; but the vagina was so sensitive that the passage of the finger around it caused much suffering. She went on very well till Sunday, when I found her greatly depressed by diarrhœa; the urine also was flowing involuntarily, producing excoriation. A slough was forming on the hip. On Tuesday the instrument came away, while I was tightening the string, and with it the chief bulk of the tumour also; a portion, however, was left, passing from within the os uteri, nearly the size of a small apple, as far as I could judge. Pieces of putrid matter continued to be discharged for a week, during which time the diarrhœa also persisted, and she was reduced to a state of great danger. The purging ceased as soon as the whole of the sphacelated portion had come away, but the urine still trickled through the vagina. On March 5th, small quantities of fœcal matter were occasionally passing *per vaginam*. This, however, lasted but for a short time; and during the course of this month she was able also gradually to retain her urine, and evacuate it at will. Another slough formed upon the back; they both separated, and the ulcers healed kindly. On May 24th, I met her walking in the street, looking tolerably well; and on August 1, 1832, I was requested to visit her for some accidental illness, when I found she had grown lusty. The catamenia had been quite regular for more than a year, and she had perfect command over both the bladder and rectum. The uterus could not be felt above the pubes, but by the vagina it was discovered to be two or three times its natural size.

In this case there seems to have been a most extraordinary disposition for the establishment of the sloughing process; first, the tumour sphacelated, then the skin of the lower part of the back, and afterwards a communication by mortification took place between the vagina and rectum. I have little doubt that a fistulous aperture was also formed into the neck

of the bladder; for such an orifice, if small, will sometimes fill up and heal spontaneously. It is not unlikely that the residence of the mortifying tumour in the vagina for so many days disposed the coats of that canal to take on themselves the sloughing process. I have remarked, indeed, that in labour sloughs are more liable to follow a lingering case, if the child is in a putrid condition, than if it be not so; and I believe that either the contact of the putrid mass, or the absorption of putrid fluid, disposes to that specific unhealthy action which terminates in loss of substance. The peculiar feel of the vagina, harsh apparently in substance, but yet preternaturally smooth in surface, observed here, often precedes slough; and I was therefore prepared for its occurrence. I had little hope, from the first, of the patient's recovery; such a complete restoration indeed as occurred here, under such a debilitating disease, could scarcely have been anticipated. Fortunately, however, the stomach retained both nourishment and stimulants; and of the latter she took a very considerable quantity.

The next case I shall narrate is, in some respects, very similar to the one just detailed.

7, Portman-square.

[To be continued.]

SOME GENERAL OBSERVATIONS ON FATTY DEGENERATION.

By WILLIAM FREDERICK BARLOW, M.R.C.S.

Resident Medical Officer to the Westminster Hospital.

(Continued from page 618, Vol. V.)

Part III.

The liability to fatty degeneration in general is proportionate to the age of the patient. Late life abounds in it; and the comparative rarity of this affection at an earlier time is obvious enough. Examples of it in the young are of the greatest interest, and most illustrate its special causes. The earliest age at which it may attack the cerebral bloodvessels is a very important point of inquiry.(a) Dr. Snow Beck has opportunely given me the note of a case in which degeneration of these channels happened in a young male child aged *one year and seven months*. "He was a stout, healthy child when attacked with convulsions, and died after two days' illness. The large arteries in the Sylvian fissure contained much deposit in their inner coats, which, from the manner in which it was collected into groups, the perfect transparency, the strong refraction of the light, I considered to be fatty deposit; but as this was not tested either by ether or dilute hydrochloric acid, I am unable to speak positively on the subject. This small deposit was traced into the smaller arteries, where it was less in quantity, and even to the minute vessels, which measured but $\frac{1}{2500}$th of an inch in diameter, outside measurement."

The degeneration was most probably fatty, but, supposing it were calcareous, the interest of the case is in nowise diminished.

A well-marked instance of fatty degeneration of the small bloodvessels of the brain, occurring at an early period of life, has been recorded by Mr. Paget. The subject was a young woman (E. Rose), aged *twenty-one* only. All the brain appeared quite healthy, "except the left corpus striatum, of which nearly the whole was reduced to a soft, pulpy substance, with mingled shades of pink, greyish, and pale yellow, and with small spots of blood here and there scattered through it." There was "striking" fatty degeneration best marked in vessels from 1-150th to 1-100th of an inch in diameter. The softening in this case may be supposed to have been augmented during the illness of the patient. After an attack of hemiplegia, she lay ill for above a month, and died "*in extreme emaciation.*"(b)

At present, there is a great want of cases of apoplexy and softening in early life, which have been well examined. There are many instances of the former on record, some of which happened in young children, but the exact condition of the vessels in them is a point untouched; the most essential matter has, as too often happens, been quite passed over. This should not be in future; we must know the link whereby cases occurring at unlike ages, and under different circumstances, are really associated. As atrophy is peculiar to no age, so neither is degeneration. Through atrophy, death may anticipate development; through it also, time, speaking pathologically, becomes "the great innovator."(a)

There is a question of peculiar interest to examine in relation to degeneration of the small cerebral bloodvessels. We know that epilepsy and other forms of convulsion less likely to so terminate do not end frequently in apoplexy. But occasionally it happens, that the epileptic dies from cerebral hæmorrhage; and, if it be that *coma* is a frequent issue of his paroxysms, or very likely if even it be not so, the danger of his situation may not at first be seen. Nothing certainly more fearful could happen to a man on the verge of apoplexy than an epileptic convulsion; nothing could be a severer test of the firmness of the cerebral vessels. No doubt puerperal fits, the most terrific that can be seen, would end often in fatal hæmorrhage, did they not mostly happen at a time when the vessels and surrounding tissue are as yet strange to decay. But I suspect that where the brain is in a state of softening ("ramollissement hémorrhagipare"), effusion far more commonly takes place than is supposed as the direct consequence of convulsion, the indirect of degeneration. I well remember an instance in which softening, convulsion, and apoplexy must have successively ensued. Paroxysmal apoplexy, as Dr. Marshall Hall describes it, may be soon changed for, or pass into, organic, when the vessels are atrophied and ready to give way. In cases of hanging, cerebral hæmorrhage, contrary to rule, has happened sometimes. Was the congestion intenser than usual in these cases, or was the state of the vessels such as to convert their distension into rupture?

Cerebral softening would, I think, far oftener end in hæmorrhage, did the blood still circulate with any great degree of force and freedom through the affected part. In some cases, the very cause of the softening seems very much to preclude the risk of hæmorrhage, at least serious hæmorrhage. Where, for instance, it follows the tying of the carotid artery; or is really dependent on obvious narrowing of some branch of a cerebral artery; or on some pressure being made upon it from without; or on its being blocked up by a piece of fibrin detached from the heart and then carried into its channel in the way described by Dr. Kirkes;(b) there would not seem, considering that the part is absolutely perishing from loss of blood, much probability of its vessels being so filled with it that they should be distended and burst from its pressure. Again, in some of those cases of very old age, in which ramollissement persists without apoplexy; we must remember that, if the vessels be weak to the utmost, the blood is often extremely sparing and circulates through them very feebly. Undoubtedly, the most favourable case of all for hæmorrhage is that in which the vessels are much weakened and degenerated, while the blood is propelled, perhaps in more than usual quantity, violently through them, or, what is more dangerous, has its flow obstructed.

In examining the changes of the minute arteries, it will be found occasionally that the degeneration is not purely fatty, but composed partly, or mostly, or even altogether, of earthy particles. An instance of apoplexy, with right hemiplegia, has been detailed by Dr. Jenner:—"The deposit was

(a) M. Durand-Fardel has given an Appendix on Softening of the Brain in Children, which shows how seldom this affection has been noticed in them, and how much it needs further inquiry.—*Traité du Ramollissement, etc.*, p. 513.

(b) "Groups of dark, blood-red crystals, of apparently prismatic form, were numerous in the softened substance of the brain."

(a) I cite the following Table, in which Dr. Rowland, (on "Ramollissement of the Brain," p. 46,) has added 97 cases to 153 already detailed by Andral, in order to give some idea of the relative frequency of cerebral softening at different ages. It would be interesting to add to this list any cases which may have been noticed at an earlier age than that of 15.

	Andral.	Others.	Total.
15 to 20	10	6	16
20 to 30	18	14	32
30 to 40	11	8	19
40 to 50	19	13	32
50 to 60	27	12	39
60 to 70	34	27	61
70 to 80	34	16	50
Above 80	0	1	1
	153	97	260

(b) "On Some of the Principal Effects resulting from the Detachment of Fibrinous Deposits from the Interior of the Heart, and their Mixture with the Circulating Blood."—"Medico-Chirurgical Transactions," Vol. XXXV., p. 281. In this communication will be found observations both of originality and importance. A new cause of softening is pointed out, or, more properly, a cause newly discovered; and the association of heart and head affection, by a most simple yet hitherto unsuspected mode, which is here insisted on, is of singular interest.

in some cases limited to the middle coat, and in several the calcareous matter existed in the form of minute granules, giving only a clouded appearance to the coat. Hydrochloric acid dissolved the calcareous matter, giving off bubbles of gas, probably carbonic acid. The coats of the arteries, after the action of the acid, looked perfectly healthy. The walls of a few of the capillaries were studded with fat."(a)

A case has subsequently been laid before the Pathological Society by Mr. Rainey, in which there was degeneration of the vessels of the cerebellum, exclusively of an earthy character. I had the opportunity of examining a specimen, and also a beautiful drawing of them, by Dr. Bristowe. The particles in the vessels might easily have been supposed fatty; they looked extremely like the fatty particles which were seen in case of softening of the corpus striatum in sequel of symptoms of paralysis and epilepsy, and which have been admirably figured and engraved.(b)

Of course, in considering fatty degeneration, one is not bound to treat of every other product and evidence of atrophy and decay; but calcareous and fatty degeneration so often occur, and are apparently so frequently traceable to the same causes, that a word or two, at any rate, must be added, in reference to their mutual relations.

In the atheromatous degeneration of the larger arteries, it has long been known that earthy and fatty matter were intermixed. It has been shown more recently, and first by Dr. Jenner, that the same thing happens in the smaller vessels.

In old age, no doubt, it frequently occurs that in one part mere withering, in another fatty, in a third calcareous, degeneration is the more prevalent.(c)

In the same spot, we may note atrophy here leading to fatty, there to calcareous degeneration; but why to one in this point and the other in that, is, so far as I know, not yet to be explained. Thus, in a case of partial atrophy and degeneration of the placenta, laid recently before the Pathological Society by Dr. Handfield Jones, "the villi of the fœtal part were very distinct, and were in part simply atrophied, in part loaded with oil, or with oil and calcareous matter."(d)

Fibrous tumours may pass either into fat or earth, or both; so may fibrinous degenerations. Crystals of cholesterine, according to Lebert, have been detected in tuberculous matter.

Inflammation, too, disturbing and weakening nutrition, may, even in parts especially prone to fatty degeneration, lead to that which is calcareous. Whether it ever does so in the cornea I am unable to state, yet this is an interesting matter for inquiry.

Pericarditis has been known to lead not only to atrophy of the heart, but to cholesterine appearing in place of its fibres. Such a case has been described by that distinguished pathologist M. Lebert. It is essential to note, that it was only the portion of the heart which lay beneath the adherent pericardium that was thus affected. "Il paraît donc que dans cette partie malade du cœur, le tissu musculaire a presque entièrement disparu et a été remplacé par du tissu fibreux, par des matières minérales amorphes et par des cristaux cholestériques." "Ces plaques offrent, du reste, la même composition que nous avons signalé bon nombre de fois dans les plaques qu'on appelle ossification des artères. Il est probable qu'ici l'adhérence partielle du péricarde a eu pour suite l'oblitération d'une partie des vaisseaux nourriciers du cœur, et de là atrophie et dégénération." (a) Here we see that no *perversion* of assimilation, no *special* cause of deposition, is referred to; all is ascribed to atrophy, even as wasting always is, and as fatty degeneration always should be.

The varieties of degeneration which have been seen in the small arteries are—

1. The fatty. 2. The calcareous. 3. The fatty and calcareous mixed. 4. The pigmental.(b)

It may be added, that M. Lebert has once noticed tubercle in a small artery of the brain.(c)

Atrophy appears a simple expression; but how various its causes, how multiform its issues are! What more different than common white softening of the brain, wherein the organ becomes liquid almost, and the morbid toughness of it which prevails in that fibrous degeneration of its tissue, in which the nerves partake,—yet both are caused by failure of nutrition! With regard to these two effects of decay, I may remark, in passing, that their symptoms are often so similar, that it is impossible to say during life which is present; they occur at the same age, and are commonly attended, not by pain or paralysis, but only by a gradual weakening of the intellect. Nor does the arcus senilis, or fatty heart, untie the difficulty of distinguishing between them. The association of fibrous and fatty degeneration is so common, that one may prevail in the brain and another in the cornea.(d)

Features of a similar cast and expression attach to all forms of degeneration. The latter lie often, as Dr. Symonds has expressed it, "on the very outskirts of the region of vitality," frequently, indeed, beyond it utterly. Death seizes particle by particle, becoming, so to speak, insidiously and imperceptibly possessed of its property, however it be called sudden at the last.

Surely it would be difficult to find a better word than that of *degeneration* (e) for the signification of those changes, whereby, passing from the complex to the simple, the structures suffer their decline and fall. Whether degeneration be fatty or earthy, premature or retarded, associated with hardening or softening, it results simply from a withdrawal of force, and presents the same marked antithesis to all that we understand and would express by development, growth, or nutrition. We can change, after death, fibre into fat, but nothing here is organised anew; disorganization, on the contrary, has been effected.

We may think with profit of Mr. Hunter's words:—"Fat is no part of an animal." . . . "An animal is the same without it as with it;" and couple with them Mr. Paget's commentary. In all cases of conversion of structures, it never appears but at a loss, and is literally no part of an animal—no *essential* part. So far from supporting life in any way, it is nothing but a mark of death. We measure by its quantity the dangers that once threatened, and refer to it when questioned as to sudden dissolution. And so, from a point of view which Mr. Hunter took not, and, with the information open to him, could not take, we may, adapting ourselves to the advancement of knowledge, yet use language, which, though figurative, is so emphatic and suggestive, and seems now to be possessed of a larger meaning; and repeat it as descriptive of that inferior material which commonly encroaches just in proportion as life is weakened, and is one of the best possible evidences of decline and proofs of fatal atrophy.

[To be continued.]

(a) "Crimson or Hæmatoid Crystals, and Calcification of the Minute Arteries of the Cerebrum."—Report of the Pathological Society, 1851-52. The rhomboidal crystals were first figured by Sir Everard Home, but first fully described in detail by Virchow. Taken from a clot of blood they may, as Dr. Jenner states, serve to determine the date of its effusion. "Independent of the interest which their appearance might excite, they are probably of some practical importance, for it would seem that, whether really, as Virchow states, a crystalline form of hæmatosin, or not, they are never found unless preceded by stasis of blood, and that several days, perhaps weeks, are required for their formation. The earliest period at which Virchow knew them to be found was seventeen days."

(b) See case by Dr. Langmore and Dr. R. Quain, Report of Pathological Society, 1851-52, p. 246.

(c) It is well known that earthy degeneration, as affecting the aged, has been laid the greatest stress upon by writers. Dr. Symonds has forcibly remarked on it in his article "Age" (Dr. Todd's Cyclopædia). Of course let all kinds of degeneration be considered, and each, if possible, traced backwards to its cause and forwards to its consequence. Fatty degeneration may appear to some to be receiving undue attention now; but some amends must be made for our having so long acted as though it had no existence; and every day almost pays fresh tribute to its importance, and a new seat or effect of it is still being frequently pointed out.

(d) I have had the opportunity of examining this mixed form of change in several mature placentæ, through the kindness of Dr. Druitt, who has made an elaborate inquiry into both fatty and calcareous placental degeneration. As it has been communicated to the Royal Medical and Chirurgical Society, I am not able to state the information he has given me. In the degenerated deciduous membrane of one placenta I observed crystals of cholesterine

(a) "Atrophie Particelle du Cœur, et Transformation Cholestérique à la suite d'une Péricardite." Physiologie Pathologique, par H. Lebert, à Paris, 1845. Vol. I., pp. 167, 168.

(b) Mr. Paget's Lectures on Inflammation, p. 33.

(c) *Op. cit.*, Vol. I., p. 464.

(d) I have described an excellent example of this latter effect of atrophy in the *Lancet* for January 27, 1849. Cruveilhier has strikingly figured it: but the best account of the change is that given by Dr. Sims in Vol. XIX. of the "Medico-Chirurgical Transactions."

(e) In a general sense, Dr. Johnson's definition of the term ("a falling from a more excellent state to one of less worth") seems to answer every purpose. The precise meaning which should attach to it as a pathological expression has been clearly and fully set forth. See Mr. Paget on Inflammation, p. 33, Lecture IV.

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

INJURIES TO THE PELVIS AND ITS CONTENTS.

UNIVERSITY COLLEGE HOSPITAL.

Fracture of Ilium	Mr. Erichsen.

ST. BARTHOLOMEW'S HOSPITAL.

Fracture of Ilium	Mr. Wormald.
Dislocation of Os Innominatum	Mr. Lloyd.
Probable Fracture of Pelvis, with Rupture of Bladder	Mr. Lloyd.
Fracture of Pelvis and Rupture of Bladder	Mr. Stanley.
Rupture of Bladder	Mr. Lloyd.

ST. THOMAS'S HOSPITAL.

Compound Fracture of the Pelvis	Mr. South.

UNIVERSITY COLLEGE HOSPITAL.

Case 1.—FRACTURE OF THE ILIUM.—RECOVERY.

[Under the care of Mr. ERICHSEN.]

We shall commence the series of examples of injuries to the pelvis and its contents, to which we this week invite the attention of our readers, by relating briefly the particulars of two cases in which complete recovery took place.

Fractures of the pelvic bones, when uncomplicated with injury to the contained viscera, not unfrequently unite favourably. The surgeon's share, however, in the cure of such cases is commonly a very passive one, and consists mainly in the abstinence from procedures likely to increase the injury already inflicted. As an accurate diagnosis of the nature of the injury is of little or no consequence, it is important to remember, that all manipulations conducted with the hope of forming one, are but so many gratuitous aggravations of the patient's sufferings, and are calculated, by increasing the shock of the accident, to diminish materially his already small chance of life.

James Barnwell, aged 50, a joiner, was admitted on Sept. 15, 1852, on account of an injury to the left side of the pelvis which he had just sustained. The accident had been a fall from a window fifteen feet high, in which he was engaged in putting in a frame, when his foot slipped, and he fell on to the level flags of the area below, pitching on the hip. Immediately afterwards he had very severe pain in the part, which continued for some time, and he was also quite unable to stand or make the least use of the left leg. When admitted he was suffering much prostration, from which, however, he soon rallied. All movements of the part gave him pain, and, on coughing, a very distinct crepitus could be felt, as if deeply situated in the body of the ilium. Without resorting to an unjustifiable amount of manipulation, it was impossible to state the exact direction in which the fracture ran, but it was evident that it involved the body of the bone, and not merely a portion of the crest. In the course of the night he passed both fæces and urine, neither of which contained blood. He was an unhealthy-looking man, and subject to an habitual cough.

Mr. Marshall, who, in Mr. Erichsen's absence, took charge of the case, ordered a broad roller to be applied to the pelvis, and that mild doses of opiates should be administered, for the double purpose of relieving pain and allaying the troublesome cough. After the lapse of a few days the bandage was removed, and, for the sake of affording greater support, the whole left side of the pelvis was strapped with long and very broad strips of adhesive plaster. During the first week he suffered much pain and some constitutional disturbance, but, gradually recovering from them, he ultimately made an excellent convalescence, and was allowed to leave his bed in the end of October, soon after which he was discharged from the hospital.

ST. BARTHOLOMEW'S HOSPITAL.

Case 2.—FRACTURE OF THE LEFT ILIUM.—RECOVERY.

[Under the care of Mr. WORMALD.]

The following case pretty exactly resembles the preceding one as regards the nature of the violence inflicted, the probable position of the fracture, and the result.

Henry Miles, aged 28, a bricklayer, while working on a scaffold, on the 15th of September, 1852, missed his footing, and fell a height of twenty-five feet on to the ground below. The violence of the concussion was mainly received on the left hip. When he recovered from the stun, he found himself quite unable to stand on account of severe pain in the left side of the pelvis, attended with inability to move the thigh. On admission, Mr. Langdon, the House-surgeon, who examined him, discovered that, on placing one hand on the crest of the ilium, and moving the thigh with the other, a very distinct crepitus was obtained. The portion from which the sensation appeared to come, led him to believe that the ilium was broken through just above the acetabulum. There was much swelling and extravasation of blood. A flannel bandage was applied, and an opiate dose administered at bedtide.

16th.—He has not slept at all, on account of pain in the back and abdomen; the latter in the left iliac region is very tender. His urine and fæces are free from blood. The pulse is 82 and full; skin moist; tongue clean, but dry down the centre.

Mr. Wormald ordered a large gutta percha splint to be moulded to the pelvis and upper part of left thigh, so as, with the help of a roller, to confine the whole immovably.

20th.—He has been more comfortable since the splint was applied, and now experiences no pain excepting when coughing. His complexion is somewhat icteroid, and bowels confined.

Hab. ol. ricini ʒi.

From this date, his progress towards recovery was uninterrupted. In a little time the slight appearance of jaundice passed off, and the pain and swelling of the part entirely subsided. In about six weeks, he was allowed to sit up, and, after another fortnight, left the hospital quite well.

Case 3.—DISLOCATION OF RIGHT OS INNOMINATUM.—LACERATION OF URETHRA.—FRACTURE OF STERNUM, ETC.

[Under the care of Mr. LLOYD.]

John Burch, aged 44, a bricklayer's labourer, was admitted on July 16. He had been found, an hour or two previously, lying on his back on a heap of broken bricks. No one had witnessed the accident, but it was believed that he had fallen from a height of at least forty feet. Although perfectly sensible, he was in a condition of extreme prostration, his extremities being cold, and pulse hardly perceptible. He died about two hours after admission.

At the *post-mortem* examination, the third rib on the left side was found to be fractured close to its junction with the cartilage; the sternum had also sustained a transverse fracture across its upper third, the fragments being, however, in perfect apposition. A large extravasation of blood had taken place into the lower part of abdominal walls and the scrotum. The pubic symphisis was so far separated, that a hand could be easily passed between the bones, the edges of which were much comminuted. Separation, with similar comminution of bones, had taken place at the right sacro-iliac sychondrosis and the whole right innominate bone was thus entirely separated from the rest of the pelvis, and driven considerably backwards. Behind the peritoneum, in the lumbar and pelvic regions, was a very large quantity of extravasated blood. The triangular ligament was much lacerated, and the membranous portion of the urethra was torn across. The bladder itself was uninjured, but it, together with the ureters, contained much blood.

It is difficult to imagine in what direction the force had been applied which produced this very rare form of injury. The fatal collapse which it induced was doubtless much increased by the large extravasation of blood which had taken place.

Case 4.—PROBABLE FRACTURE OF PUBIC BONES, WITH RUPTURE OF BLADDER.

[Under the care of Mr. LLOYD.]

Redmund Fake, aged 25, while in a state of intoxication during the night of August 7, fell in front of a cart, the wheel of which passed over his pelvis. When admitted into the hospital, almost immediately after the accident, he appeared to be in great pain, but exhibited very slight indications of collapse. His pulse was of good power and nearly natural frequency; he was very thirsty, and constantly demanded water. The parts about the pubes were swollen and very tender.

8th.—He has passed the night in great pain, and been very sick. There is much ecchymosis over the pubes and in the right groin, and the abdomen is tympanitic. Skin moist; pulse 90, small, soft, and compressible; tongue inclining to become dry. In the course of the day several small quantities of urine, mixed with blood, were drawn off.

9th.—Tongue dry and brown; pulse 96, soft, and of moderate volume. He several times passed small quantities of urine containing blood. In the evening his tongue became more moist, and he appeared to be in somewhat less pain.

10th.—Pulse rapid and feeble; aspect sunken and pale. Small quantities of urine, with much blood, were again drawn off.

11th.—Death took place early this morning, nearly four days after the infliction of the injury, the whole of which time has been passed without sleep, and in apparently intense suffering, which has been much aggravated by almost constant vomiting. The latter symptom began soon after admission, and, with very short intermissions, continued up to within a few hours of death.

The treatment consisted in the application of large numbers of leeches to the abdomen, and in the free use of opium internally; the latter remedy was, however, owing to the irritability of the stomach, constantly rejected.

His friends, being natives of the Sister Isle, resolutely refused to permit a *post-mortem* examination, so that the precise extent of his injuries remains unknown; but, from the nature of the symptoms, it is almost certain that he had sustained a rupture of the bladder, probably with extravasation of urine into the peritoneal cavity.

Case 5.—SEPARATION OF SYMPHISIS PUBIS—FRACTURE OF OS PUBIS—RUPTURE OF BLADDER—DEATH ON FOURTH DAY.

[Under the care of Mr. STANLEY.]

The part of the bladder in which rupture takes place will, of course, very much modify the character of the symptoms occasioned. The following case is very interesting, inasmuch as the laceration was in a part not covered by the peritoneum, and the accident consequently did not involve effusion of urine into the periteneal sac.

Benjamin Ward, aged 9, a robust boy, accidentally slipped off the shaft of an empty wagon on which he had been riding, when both wheels passed obliquely over his abdomen. He was at once taken to the hospital.

July 29, an hour after the accident.—He complains of some pain in the left lumbar region, and also over the hypogastrium. His aspect is not materially different from that of health, excepting that it betrays some restlessness. His pulse is of good power, and very slightly accelerated; skin warm. A large poultice was applied to the abdomen, and fifteen drops of laudanum administered.

July 30.—Has slept well most of the night, and looks comfortable, but his face is slightly flushed. No urine has passed since the accident, but in the night he evacuated *per urethram* about two ounces of nearly pure blood. On introducing a catheter, Mr. Stanley drew off five ounces of urine tinged with blood. The boy takes his food, and does not suffer from vomiting.

Vespere.—Skin hot; pulse 110, sharpish; tongue clean and moist. During the day he has slept a good deal, but always awoke in pain, and his expressions were occasionally incoherent. When awake, he states that he has no pain, but his manner is hurried and somewhat anxious.

31st.—Face rather flushed; countenance not at all indicative of serious mischief. He is continually biting his lips or nails in a restless, unquiet way. He still denies that he has any pain, but the lower half of the abdomen is tender on pressure. A large and heavy poultice is, however, kept on, and occasions no complaint. Tongue coated with white fur, through which turgid papillæ project; pulse 120, sharp, small, and rather hard. No sickness. Small quantities of bloody urine have been repeatedly drawn off. On account of the absence of pain, no treatment has been adopted.

August 1.—Has not slept at all, and is now evidently sinking. Face pale, and features pinched; pulse extremely rapid and feeble. Death took place in the evening, four days after the accident.

Autopsy.—The bones at the symphysis pubis were separated from each other to the extent of about a quarter of an inch, and the ramus of the left os pubis was broken through. Between the anterior abdominal wall and the peritoneum was a large quantity of coagulated blood mixed with a fluid of a urinous odour. The bladder was almost empty, and in its fundus, just opposite to the pubic symphisis, was a laceration which extended up to, but did not involve, the peritoneum. In the peritoneal sac itself there were but few traces of inflammatory action. The portion opposed to the extravasated blood exhibited a diffused pink congestion, and there adhered to it a few soft flakes of lymph.

The above case presents some very remarkable features. The absence of collapse at the time of the injury, the comparatively small amount of constitutional disturbance which followed it, the almost entire absence of pain, and the non-occurrence of vomiting, all constitute exceptions to what usually follows lacerations of the bladder.

Case 6.—RUPTURE OF THE BLADDER FROM VIOLENT CONCUSSION OF THE ABDOMEN.—DEATH FOUR DAYS AFTER THE ACCIDENT.

[Under the care of Mr. LLOYD].

James Tomlinson, aged 25, was admitted February 25, 1852. It appeared that two days ago he and a boon companion had been "larking" together, both being in a state of intoxication. While scuffling, they fell backwards in such a manner that the other man was suddenly seated with much force in Tomlinson's abdomen. The account given was only imperfect, and it is doubtful whether his bladder was full at the time or not. On rising, he felt faint, and was conveyed home, and, although very sick, he appeared to have been so slightly injured, that no medical advice was procured for two days, when, as he had become very much worse, he was brought to the hospital. He was then in a state of collapse, aspect sunken, face dusky, pulse very rapid and feeble, abdomen tympanitic and very tender. He had passed no urine since the accident, though he had frequently desired to do so, and was now tormented with hiccup, and almost constant vomiting. Mr. Lloyd at once introduced a catheter, and drew off about three ounces of urine mixed with blood. He passed a very restless night, and, in the morning, three ounces more of urine were drawn off. He was rapidly sinking; and, although treated freely with opium and stimulants, did not rally at all, but died in the evening, four days after the accident.

Post-mortem.—The bladder was collapsed, but contained four ounces of blood and urine; its fundus was lacerated from before backwards, the rent being at least an inch long, and involving all its coats. A large quantity of thin bloody fluid, having a urinous odour, occupied the cavity of the pelvis. The only traces of peritonitis which were found consisted in a slight diffused redness of the whole membrane, with here and there a few very small and soft films of lymph. In various parts around the liver were some strong and dry bands of false membrane, evidently the remains of a long past attack. All the other viscera examined were healthy, and no injury, except that of the bladder, appeared to have been sustained.

When we remember the very intense inflammation usually caused by the effusion of the contents of the stomach or intestines into the peritoneal sac, or even by the bursting of a common abscess, the reason why so little effect should be produced by so irritating a fluid as the urine is most inexplicable. The fact, however, has been frequently observed. Mr. Lloyd mentioned at the time an instance which had come under his own notice, in which the urine was drawn off *from the cavity of the peritoneum* for two whole weeks before the amount of irritation produced was sufficient to cause death. At the autopsy of this case a rent in the fundus of the bladder was found, involving all its coats, and so large, that it must have quite incapacitated the viscus for acting as a receptacle of fluid. The point of the catheter had probably, on each occasion of its use, entered this laceration, and through it passed into the peritoneal sac.

ST. THOMAS'S HOSPITAL.

Case 7.—COMPOUND FRACTURE OF THE PELVIS.—RUPTURE OF THE BLADDER.

[Under the care of Mr. SOUTH.]

William Matthews, aged 34, a railway porter, was admitted on September 27, on account of severe injuries sustained by a heavy truck having been overturned upon him. He reached the hospital about an hour after the accident, and was then in a condition of collapse, his pulse being small, thready, and irregular, and his extremities cold. He was quite conscious, and very irritable, owing perhaps, to his being partially intoxicated. He complained of no pain, except when moved, but was very desirous to be turned on to his side. On examination it was found that the crest of the left ilium and the tuberosity of the ischium of the same side had been fractured; there was also a wound in the integuments over the left side of the pubes, which apparently communicated with another fracture, and from which there was considerable oozing of blood. His bowels acted soon after admission.

Sept. 28.—He has slept at intervals during the night, and his pulse much improved in volume. He complains of no pain. A catheter being introduced, a considerable quantity of urine mixed with blood was drawn off. In the evening he vomited several times, and rather suddenly began to complain of severe pain in the lower half of the abdomen, which was tender to the touch. The urine now drawn off contained very little blood.

℞ Morph. hydrochl. gr. ¾, statim sumend.

Sept. 29.—The abdominal tenderness is very slight, but he has vomited several times. A flexible catheter has been fixed in the bladder, and the urine passes away freely, mixed with a large

quantity of blood. He takes nothing except a little milk and water.

Sept. 30.—He lay through the day in a state of insensibility, but appeared to suffer much pain during the few hours before his death, which took place late in the evening, exactly three days after the infliction of the injuries.

At the autopsy, it was found that the crest of the left ilium had been fractured in several places; the tuberosity of the left ischium was broken through, as also the rami of the ischiatic and pubic bones, at their points of junction on both sides. On the left side, the fracture extended to the body of the os pubis, and a detached splinter of bone had been driven backwards into the fundus of the bladder, in which there was a perforation capable of admitting the little finger. The peritoneal coat was but slightly wounded, and there did not appear to have been much urine effused either into its cavity or the cellular tissue of the injured parts. The peritoneum itself was extensively congested, but contained only a small quantity of serum, and here and there a few patches of sof and recent lymph. There was much extravasation of blood around the fractured bones.

We are indebted to Mr. Tyrrell, one of Mr. South's dressers, for the notes of this case.

Remarks.—Before dismissing this instructive series of cases, we would ask attention to a few points in the general diagnosis and treatment of this class of accidents. As regards diagnosis, it cannot be too strongly urged, that there is no necessity whatever to form one at all. Let the surgeon abstain from all injurious meddling, give a very cautious prognosis, and act as if the worst had happened without being in any way anxious to prove his position. It will be seen from several of the cases adduced, that these injuries are not invariably attended with severe collapse, and that a patient who has received a mortal injury may manifest for the first day or two no alarming symptoms. This is probably true in an especial manner of those cases in which but little blood has been extravasated; while those in which large vessels have been torn, are very generally marked by extreme prostration. As to treatment, in all cases in which it is probable that the bladder has been injured, the main fear is, that effusion of urine will take place, for the prevention of which the catheter should be employed very early, and, if not allowed to remain in, should be frequently introduced, so as, if possible, to keep the viscus constantly empty. Severe wounds of this organ, when opening externally, have been known to heal favourably, and there is probably no reason why an internal laceration, provided it does not involve the serous investment, should not, if the due precautions be observed, terminate in cure.

In fractures of the pelvis, as in those of long bones, the line of treatment most plainly indicated is that of keeping the disunited portions in apposition and at complete rest. With this view, the expedient adopted by Mr. Wormald, of a large gutta-percha casing for the thigh and pelvis, is probably the best. Without some such appliance it is impossible to prevent the fragments being unduly disturbed on each occasion that it becomes necessary, for the sake of cleanliness or other purposes, to change the position of the patient. No one would think of undertaking the treatment of an ordinary fracture without splints, and why it should have become so much the custom to discard them in the treatment of the very dangerous fractures of the spine and pelvis it is difficult to comprehend. The internal exhibition of opium should constitute a very prominent feature in the treatment of these injuries, and may in many cases be pushed to a great extent. If the stomach cannot be induced to retain it, enemata containing laudanum should be employed. It is equally applicable, and equally loudly called for, whether the object be to control peritoneal inflammation, or to prevent the occurrence of death from pain. Let the practitioner of the art of healing take as his motto, *nil desperandum*, and in every case, however apparently hopeless, assiduously carry into practice all the means which his ingenuity can suggest: in the occasional recovery of very desperate cases he will find his reward.

ST. MARY'S HOSPITAL.

FRACTURE OF SKULL.

[Under the care of Mr. URE.]

James Abbey, aged 31, was admitted into St. Mary's Hospital June 9, 1852, having immediately before received a kick on the head from a horse. The scalp was lacerated in an irregular manner over the anterior and superior part of the left temporal fossa, the temporal muscle itself shared in the injury, and a considerable quantity of blood was effused beneath it. There was not much bleeding at the time of his admission, nor had much occurred previously. The parietal and frontal bones were comminuted in a situation corresponding to the laceration of the scalp, and the fractured portions were depressed, although the amount of depression was obscured by coagula of blood. When admitted, the man was sensible, and recognised his comrades. There was slight convulsive action of the muscles of the right side of the face, but this quickly passed away. He could not speak, and was only partially able to protrude his tongue. The pupils were dilated and motionless. Pulse 76, jerking; respirations laborious, 18 in the minute. He experienced great difficulty in deglutition, and there was partial paralysis of the left arm and leg.

The wound was enlarged so as to expose fairly the depressed bone, and a large fragment was then raised with the elevator. It was not found necessary to use the trephine. Some small loose pieces of bone were removed. Arterial blood seemed to ooze from under the bone, and some branches of the temporal artery, which were cut in enlarging the wound, bled freely. The wound was partially closed by strapping. He spoke during the operation, and seemed relieved by it. The pulse also rose, and became less jerking. His respiration was 21 to the minute, and quieter; and he had acquired the power of moving his left arm. Ordered hyd. chlor. gr. v. statim.

At nine p.m. mis. sennæ co. ʒij. were ordered him. Shortly afterwards blood began to ooze from the wound; it was, however, soon staunched by the application of wet lint.

June 10th, ten a.m.—He lies in a half comatose condition, and cannot speak; the wound is filled with coagulum and looks puffy; the right arm is flexed, and the fingers of the same side forcibly bent against the palm, so that some force is required to straighten them; the urine passes freely, but without his knowledge; the bowels have not acted since his admission; can protrude his tongue when requested to do so; he has less difficulty in swallowing; vomited twice in the night; pupils still dilated and inactive; respiration more laborious, attended with stertor and puffing of the cheeks; the bowels were freely relieved in the evening by purgative medicine; the fæces, however, passed involuntarily, and no mitigation of symptoms followed.

11th.—The pupils are less dilated, and the right seems to act slightly, but the left is quite motionless; his respiration is difficult and stertorous, and attended with puffing of the cheeks; pulse quicker and more jerking; there has been no return of sickness since yesterday morning; the wound is still filled with coagula, but its edges seem less red and puffy; the urine and fæces are passed involuntarily, and he lies in the same half-insensible state, being, however, still able to put out his tongue when desired. During the night the coma became more profound, and at eight a.m. on the 12th he expired.

Post-mortem Examination Fifty-five Hours after Death.—There was considerable effusion of blood beneath the scalp in the neighbourhood of the wound, and a small triangular piece of bone was found loose in the temporal muscle. On sawing through the skull some red serum oozed out; and on removing the calvarium, a large clot of blood was exposed between the dura mater and the bone, measuring full four inches across, and extending from the seat of fracture to the middle fossa at the base of the skull, the whole of which it covered. The cranium was fractured in two directions in the parietal bone, but both fractures met in the squamous portion of the temporal, and from thence one fissure continued downwards to the great ala of the sphenoid, where it terminated. On turning back the dura mater from the brain, a laceration of that membrane was exposed, corresponding in position to the middle of the clot of blood which has been mentioned, and large enough to admit the end of the middle finger. Extravasated blood was present beneath the arachnoid around the middle and lower lobes of the cerebrum, being most abundant opposite the laceration of the dura mater. At a little distance posterior to the line of this laceration, the brain itself was broken, and contained a clot of blood, while the cerebral substance around both white and grey matter was soft, pulpy, and of a reddish hue. The lateral ventricles contained about three ounces of serum.

Blood was effused on the surface and between the convolutions of the right lobe of the cerebellum.

For these cases I am indebted to Mr. Bullock, the house-surgeon to the hospital.

St. George's Hospital.—A vacancy has occurred in the surgical staff of this Institution, owing to the resignation of Mr. Keate. Mr. Henry Charles Johnson has resigned the office of assistant-surgeon, in order to become a candidate for the surgeoncy; and Mr. Pollock, for some time the Lecturer on Anatomy in the school attached to the hospital, has come forward as a candidate for the vacancy thus created. The election will take place on the 4th February.

LIST OF SCIENTIFIC MEETINGS.

This Evening, Jan. 22.—Royal Institution. — *Subject :* — "On the Philosophy of Chemistry." By Alexander W. Williamson, Ph. D. Three o'Clock.

—— —— Medical Society of London.—*Subject :* — "On a Remarkable Case of Sarcina Ventriculi; with Chemical and Microscopical Analyses of the Urinised Fluids, and of the Urine; illustrated by Drawings." By Dr. A. H. Hassall. Eight o'Clock.

Monday, January 24.—Royal Institution.—*Subject :*—"On Organic Chemistry." By Dr. A. W. Hofmann. Four o'Clock.

Tuesday, January 25.—Royal Institution.—*Subject :*—"On Animal Physiology." By T. Wharton Jones, Esq., F.R.S. Three o'Clock.

Wednesday, January 26.—Royal Institution.—*Subject :*—"On Organic Chemistry." By Dr. A. W. Hofmann. Four o'Clock.

Thursday, January 27.—Royal Institution. — *Subject :* — "On the General Principles of Geology." By J. Phillips, Esq. Three o'Clock.

Friday, January 28.—Royal Institution.—*Subject :*—"On Recent Discoveries in Organic Chemistry." By Professor A. Williamson. Half-past Eight o'Clock.

Saturday, January 29.—Medical Society of London. Eight o'Clock.

—— —— Royal Institution.—*Subject :*—"On the Philosophy of Chemistry." Three o'Clock.

Medical Times & Gazette.

SATURDAY, JANUARY 22.

THE SANITARY MOVEMENT.

The General Board of Health have lately issued an official circular, addressed to officers of health, medical officers, members of local boards, and other persons charged with the execution of certain duties imposed upon them by some recent legislative enactments, designed for the purpose of improving the health of the community. The time chosen for the promulgation of such a document is, no doubt, opportune; and the general absence of epidemic disease observable at the present period allows abundant leisure to the Medical Profession to organise and to recommend such measures of sanitary improvement as may diminish the severity of any unexpected visitation of pestilence, or may, perchance, anticipate and thus frustrate its advent.

Experience has abundantly shown, that the heaviest visitation of disease has always fallen upon those localities which are the least prepared; while in those places where enlightened sanitary measures have been adopted, or where the salubrity of the climate or the situation is not counteracted by the indolence or the carelessness of man, the progress of the plague has been arrested, and the bolt has fallen comparatively harmless.

The late visitation of cholera in the year 1849 must be fresh in the memory of all our readers; and we need not recal to recollection the frightful amount of deaths from this disease, and the general inefficacy of the remedial measures that were adopted, after the attack had fairly seized upon its victims. We have no wish to expatiate upon these horrors; and we would willingly believe that this awful scourge, almost unparalleled in the universality of its occurrence, the suddenness of its seizure, its resistance to treatment, and its great fatality, had finally quitted these shores; but to indulge in such a hope would be to lull ourselves into a false security, and, by the neglect of due precautions, to invite another attack. Such negligence would resemble that of the Italian peasant, who, cultivating the soil on the slopes of Vesuvius, slumbers securely beneath the crater of the mountain, regardless of the eruption which may one day destroy his family and devastate his fields.

The General Board of Health very justly urge, that the extraordinary nature of the present season, characterised as it has been by enormous and long-continued rains, is well calculated to increase the intensity of any unusual epidemic influence which might possibly arise; that many parts of the country have been inundated, sewers of deposit have burst, cesspools have overflowed, and their contents have been carried into the lower parts of buildings. They also state, that where these floodings have occurred, and where decaying animal matter has been dissolved and distributed over large surfaces, pestilential gases must necessarily be evolved, and disease propagated.

The remedial, or rather preventive, measures recommended by the Board are of a sound and judicious character, and we shall be happy if any remarks of ours may tend to give them still greater publicity, or to urge them with still greater force upon the mind of the nation. Recollecting that the scourge has fallen most severely in former times upon the poor, the dirty, the ill-fed, the ill-clad, and the dissolute, and with the expectation that these classes will be probably the greatest sufferers in any future epidemic, it is the duty of legislators, it is the duty of the public press, general as well as medical,—it is the paramount duty of our Profession,—it is the duty of every well-wisher to the human species, to labour to improve the moral and physical condition of these classes of society. At a period like the present, when wealth is pouring in daily from distant lands,—when treasures hitherto unexplored have been unfolded to our view, and when art, commerce, and industry are flourishing to an extent unparalleled in history,—when the refinements of life are carried to the highest degree, and human indulgence knows scarcely any limit,—in such a condition of things, it is the duty of all who enjoy the blessing of living in a prosperous country like England, and in an enlightened period like our own, to watch over the interests of the poor,—of the outcasts of society, whom oppression, or misfortune, or perchance their own vices, may have doomed to occupy the lowest rank in the social system. We are not insensible to the vast amount of relief which is daily afforded to the humbler classes from the resources of public benevolence and of private charity; but much still remains to be done, and an energetic appeal is demanded at the present time; and we feel confident that the appeal will not be made in vain. It is not the cry of distress which meets the ear in the public streets; it is not the open exhibition of misery which extorts the charity of the casual passenger, to which we desire to call the attention of the Christian and the philanthropist; but we invite attention to the patient and silent suffering of those whose pride forbids them to beg, and whose principles forbid them to steal; who pine away their hours in solitude and privation, and become the early, unpitied victims of disease and death. From such a class of persons—worn-out with misery—reflecting with bitterness upon their present condition, and having little hope of melioration in the future—no efforts of a sanitary tendency can in reason be anticipated, and it is, therefore, the duty of others to do for them what they are too listless to do for themselves. In reference to the late heavy rains, and the consequent diffusion of poisonous miasmata, to which we have just referred, the following remarks are made in the Official Circular:—

"The General Board would represent that a calamity so urgent, unforeseen, and unavoidable, affords a special occasion for administering extraordinary assistance to the poor, to enable them to keep large fires in their rooms, to protect

themselves from cold and damp by warm clothing, to sustain their strength by a solid and nutritive diet, and to counteract the predisposition to disease, induced under these peculiar circumstances, by suitable tonics and other remedies under medical direction. Such helps would be required in ordinary seasons under like circumstances; but they are peculiarly necessary at a time when there is a threatening of the return of the most formidable disease of modern times, and when the conditions in question are among the most powerful causes predisposing to the localization and spread of the pestilence."

These remarks, excellent as they are, are capable of expansion. Experimental science has taught us that a full state of the vessels, even although artificially induced, as by injecting water into the veins, is antagonistic to the absorption of poisons; and experience has proved that persons who are well-fed and well-clothed are less liable to the attacks of epidemic disease than those who are in the opposite conditions. It is equally clear that a dry and warm condition of the body is conducive to health, while wet and cold are two of the chief causes of diseases. Science, as well as humanity, therefore, cries aloud to the opulent and to the intelligent, to the clergy and to the laity, to the benevolent of all classes, to remedy the condition of the poor; and although we are ashamed to make use of so selfish an argument, we may urge with truth that, although the lower classes are the first victims and the chief sufferers from an epidemic, yet the disease is strengthened, and its virulence augmented, by the propagation of its miasma through the ranks of the population, till the air becomes so contaminated by the morbific influence, that high and low imbibe alike the atmospheric poison, sink alike under the same stroke, and fill at last the same common grave.

THE UNIVERSITY OF LONDON FRANCHISE MOVEMENT.

That the franchise movement of the Graduates of the University of London would meet with warm sympathy from the members of the Profession we at once expressed our perfect confidence. The letters we have received on the subject testify to the truth of our conviction. In the House of Commons there is not a single Member who has any direct object to serve in furthering the wants of the Medical Profession,—not one whose especial duty it is to master and strive to simplify the complex details of its anomalous government, guard its privileges, and watch over its honour. That we suffer daily from the absence of such a representative, and that the public suffer too, no one conversant with the subject can for an instant doubt. The possession of a representative by the University of London would secure for the Profession *one* Member of the House such as they need. That he must attend to the just wishes of the Medical Graduates the subjoined analysis of the degrees granted by the University to the end of 1851, will render manifest. Doctor of Laws, 5; Doctor of Medicine, 103; Master of Arts, 39; Bachelor of Laws, 38; Bachelor of Medicine, 219; Bachelor of Arts, 461. In all 868 degrees, of which 322 are in Medicine. That the number of the Graduates will increase yearly, even as the University is at present constituted, there cannot be a doubt, seeing that the number of those who have matriculated, but not yet obtained a degree, is upwards of 1500. In order to enlarge the constituency, it has been proposed to give a vote to the teachers in the various colleges and schools affiliated to the University, *i.e.*, teaching institutions, the students of which are admitted to examination by the Senate of the University. At first sight this seems a plausible scheme, but its working, we are confident, would seriously injure the University itself without benefiting any large section of the community. The Medical Graduates of the University fairly represent every section of the Medical Profession, and it will not be too much to say that in a few years they must constitute a considerable proportion of the *élite* of every section. Of this the questions proposed to the candidates, which from time to time we have published, provided only we can prove that *answers* to them are absolutely required, is sufficient guarantee. But, as we once heard an Examiner say,—"It is not what is asked but what is taken, that proves the difficulty of an examination." The value of the questions asked as a test of the knowledge of the candidates, must therefore be sought in the character of the candidates generally and in the number of the rejections. How stands the University examination when thus tested? It is notorious that those who "go up" to the University of London from the various Schools of Medicine are among the very best of their year. The class of candidates, therefore, is unexceptionable. Now, what proportion of these men are rejected? Of those who present themselves for matriculation, one in nine is sent back; for the first examination for the degree of M.B., nearly one in three; for the second examination for the degree of M.B., one in eight; for the degree of M.D., one in fourteen. The average age of the Bachelors of Medicine at the time of their receiving their degree has hitherto been 26 years; of the Doctors of Medicine, 28 years 5 months.

Of the Bachelors of Medicine, a large proportion practise as pure Surgeons, or as General Practitioners. Of the Doctors of Medicine, a large proportion are Physicians, and teachers in London and provincial schools. Thus, then, as we have said, every branch of the Profession is fairly represented by men whose educational knowledge has been *fully* tested. What would be the effects of adding to it the teachers of all the schools in connexion with the University? These among others, that the Graduates of the University would be out-numbered by the teachers in these schools, that the interests of Colleges would have to be chiefly considered, and that the stimulus to our students to obtain a vote by graduating at the University would be lost by the knowledge that the Graduates were out-numbered by a body the relation of which to the University was slight and transient, and the interests of which, on some occasions, might be strongly opposed to those of the Graduates of the University themselves.

Again, it must be conceded, that the teachers of medicine are but a section of the Profession, and to give this one section the chief voice in the election of a member of Parliament,—and this, from their number, would be the practical effect of giving them a vote for the University,—could, to say the least, conduce but little to the advantage of the Profession at large, and still less to that of the University itself.

The Medical Graduates of the University of London then represent every section of the Profession; these same Graduates, plus the teachers in all the schools in England, Scotland, and Ireland, connected with the University, would represent only a section of the Profession. We need not say which constituency we consider the better suited to promote the interests of medicine.

By the way, the members of the Franchise Committee ought to have had one thing impressed on them strongly by the Oxford election, viz., the necessity for the Graduates being allowed to vote by proxy. This privilege in a University constituency is indispensable; without it, the majority of the Medical Graduates, at least, had better be without a vote.

EXAMINATION REFORM:—
ROYAL COLLEGE OF SURGEONS IN IRELAND.

We have learned, with great pleasure, that movements have been set on foot to bring about important changes in the constitution of the Examining Board of the Royal College of Surgeons in Ireland. The standard of examination at the Irish College has been always at a high level, the range of subjects large and well selected, and a proportionate amount of consideration has been given to those holding its diploma. But though, on the whole, the system has worked well, there have been some peculiarities in the mode of election to the examining body, and in the qualification of candidates for the office of Examiner, which we cannot but think very exceptional, and which, therefore, now that changes are contemplated, we trust to see abolished.

Some years ago, a by-law was passed, providing that no person should be eligible to hold the office of Examiner who happened to be a professor or lecturer on any branch of medical science in any School, College, or University. Of course the chief object of such a regulation was to prevent a system of favouritism being pursued by teachers in their capacity of examiners; and, on the other hand, to prevent any undue influence being used by examiners to advance the interests of particular schools. It is to be observed, that this rule did not extend to physicians or surgeons in their capacity of hospital teachers and clinical lecturers. As one of the fundamental and most essential qualifications of a medical examiner, we conceive that it will not require much reasoning to prove that he should possess a thorough and intimate knowledge of his subject, not only as regards its literature, but also in its practical workings. The well-educated surgeon, daily familiarized with disease in the wards of a hospital, is, without question, the most competent man to examine a student and test his fitness to practise surgery; and so likewise with the practised clinical physician. If this hold good in the departments of medicine and surgery, it is true, *à fortiori*, in those of anatomy, physiology, and chemistry. For, even though an examiner in medicine and surgery were not a teacher, or a hospital physician or surgeon, yet these subjects are in the course of his daily avocations, to some extent, at least, under his observation. But in the case of the physiological or anatomical examiner, with the exception of those engaged in teaching these departments, how few are, practically, observers, how few have opportunities or inducement to keep their knowledge on a level with the advancements of the day. We believe that in the Irish College this portion of the Board has been usually composed of men at one time engaged in teaching these departments; but, while we do not wish to be understood as in any way underrating the abilities of the present Examiners, we insist that the principle of electing as examiners those who are not actively engaged in teaching or making researches in these departments is a bad one, and liable to lead to many abuses. Is not the student thrown more closely into relation with his clinical teacher at hospital than with the Professor of Anatomy or Physiology whose lecture he attends, and yet no favouritism is objected to here? Elect the best anatomists and physiologists to examine in these departments, independent of local or corporate consideration, and we are confident the anticipated evils will prove a shadow. We shall, therefore, learn with pleasure that this by-law has been rescinded.

A rumour has reached us, that it will be attempted to abolish the office of Examiner in Chemistry and Pharmacy. We believe and hope it is unfounded; nothing would be more likely to damage the reputation of the Irish diploma.

EPIZOOTIC DISEASES.

Under the auspices of its very able President, Dr. Babington, the Epidemiological Society continues to exhibit that energy which is an earnest of success. A Committee has now been formed, of which Mr. Simonds, of the Veterinary College, is the President, for the purpose of investigating the subject of the epidemic diseases that affect cattle. This Committee has commenced its public duties by issuing a series of questions, which are to be forwarded to all those they think may be able to afford them information on the subject, and to such others as may apply for copies. The subject is one of immense importance. Comparative anatomy is in an advanced position; comparative pathology yet in its infancy. That great light will ultimately be thrown on many of the more obscure affections of our own race by researches into those of the brute world there cannot be a doubt; and, in the department of epidemics, we believe this will be found especially the case.

Forty questions are propounded by the Epizootic Committee. The following will give an idea of their general bearing:—

"1. Has the disease, termed pleuro-pneumonia, existed either among your own cattle, or among any which are under your immediate observation?

"13. Is it your opinion that the malady is contagious, and, if so, what proofs have you?

"33. Is the general character of the district in which you reside flat or hilly, dry or damp, wooded or open?

"36. Are the cattle sheds well drained and ventilated?

"38. Did any blight, mildew, or similar affection manifest itself amongst your corn, or other crops, previous to or about the time that your cattle became diseased?

"39. Have any epidemic diseases prevailed among the people in your locality, either shortly before, or during the appearance of the malady in question?"

We earnestly recommend such of our readers as can afford assistance to the Committee, to apply to the Honorary Secretaries, at 38, Berners-street, for copies of these questions.

MORTALITY IN THE METROPOLIS.

We this week insert our Annual Table of Mortality in the Metropolis, compiled by Mr. B. Smith from the Registrar-General's Weekly Returns for 1852. This Table comprises the Mortality for the year and in each week of the year—the several diseases—births and deaths of males and females—age at death—the respective Districts in which the deaths occurred—the temperature and meteorology, and increase of population.

Many interesting particulars may be deduced from this Table; and we shall probably take an opportunity at a future time to recur to them.

REVIEWS.

Asylums for the Insane. Observations upon the Importance of Establishing Public Hospitals for the Insane of the Middle and Higher Classes; with a Brief Exposition of the Nature of Insanity, and the Present Provision for the Treatment of the Insane. By Thomas Dickson, L.R.C.S.E., Resident Medical Superintendent of the Manchester Royal Lunatic Hospital, etc. Pp. 62. London: Churchill. 1852.

If there be one subject in the whole department of medical practice more deserving than any other of the thoughtful consideration of the whole body of our Profession, it is, in our opinion, the care and treatment of the insane: for since mental disorders are at all times more afflicting than those

of the body, so the total loss of reason is often worse than death itself. To meliorate the condition of those, therefore, who, unhappily, are unable to assist themselves, is one of the happiest prerogatives to which we can lay claim: and it may be doubted whether the mind of man is capable of receiving any higher gratification than that which results from the consciousness of his having been the instrument of good to others. It must be, and indeed it is, a matter of pride and congratulation to our Profession, both at home and abroad, that very much has been done of late years to advance the treatment of lunacy; at the same time it must be allowed that much still remains to be done, and we must beware of tarnishing the laurels we have already earned by halting midway in our career of usefulness. In the present day, the pauper lunatic has, perhaps wisely, received the largest share of attention; and so great have been the reforms effected, that an insane man had better be penniless, rather than cursed with a moderate income, especially if he can obtain admission into such noble asylums as Hanwell, Colney Hatch, or others of the same class. We trust, however, that no long time will elapse ere we shall find the object advocated by Mr. Dickson carried into effect,—namely, that of having public hospitals for the insane of the middle and higher classes of society. Some of the most painful scenes we have ever witnessed, and which we think of almost with horror, have taken place in private asylums, and we have now distinct recollections of two of these, the mere confinement in either of which would be sufficient to induce insanity, so deplorably deficient are they in all which good institutions should possess, so gloomy are they in their situations, and so miserable in the accommodation they afford. Yet these houses are licensed, and, as far as we know, they are both thriving mercantile speculations.

Let us hear, however, Mr. Dickson's statement of the manner in which these establishments are conducted, and of the temptations to which the proprietors of "licensed houses" are particularly exposed. Among the inducements to do wrong he enumerates—

"1. Reducing the expenses of the establishment to limits incompatible with the proper performance of their engagements to society in reference to their unfortunate inmates.

"2. Continued detention of those eligible by convalescence *to trial at least* in society.

"3. Accessibility to the interested suggestions of nominal friends of patients.

"The evils arising from the first-mentioned temptation have been many, and of frequent occurrence, as may be substantiated by Reports on Asylums. The establishment of a house for the reception of lunatics is generally entered upon as a money speculation, by which the proprietor hopes to derive a profitable income, and perhaps to realise a small fortune. And he is warranted in this expectation from the success which he sees has attended the exertions of others similarly engaged. The first thing he (or she, for frequently ladies are the proprietors of private asylums) does, is to look out for some unoccupied mansion in the country, situated at a convenient distance from some large town, and containing a sufficient number of rooms for bedrooms and suitable day rooms. Having taken a lease of the premises, he proceeds to make such alterations as, while leaving ample and comfortable accommodation to the domestic part of the establishment, appear to be absolutely necessary for the safe keeping of the future inmates.

"These alterations are not conducted in general upon the principle of contributing in the greatest degree to the comfort of the patients for whom they are intended, in respect to warmth, light, ventilation, dryness, opportunities of exercise, occupation, or amusement; but upon the makeshift principle of doing as little, and at as little expense, as possible. Even should the house and grounds be damp—a not unfrequent circumstance—there is very rarely any attempt made, as it involves an item of expense, to remedy the evil by draining. Should the windows be too large, they are barred with iron bars. Ventilation in the day-rooms may perhaps be attempted by means of a noisy revolving contrivance of tin, which keeps up a monotonous din all the year round, but in the bedrooms even this clumsy substitute for efficient ventilation is not adopted. * * * *

"Having procured the licence, the house begins to receive patients; but we will suspend our general description awhile, to particularise how patients are sometimes obtained. The proprietor of a 'licensed house' in this neighbourhood has, within the last eighteen months, issued a circular to many of the medical men, to the effect, that '*he would give a fee to the party receiving the note, for every patient he caused to be sent into his establishment; and would continue to pay the same fee for every quarter of a year that the patient remained under his care*'!!! Is not this an instance of truculency, presuming equal venality on the part of the members of an honourable Profession?

Comment upon such a statement as this is needless. We need only reiterate an opinion, first expressed, we believe, by the Chairman of the Board of Commissioners in Lunacy, —the Earl of Shaftesbury,—that we hope to live to see the day when every private asylum in England will be abolished.

On the Pathology and Treatment of Hysteria. By Robert Brudenell Carter. Pp. 161. London: 1853.

Mr. Carter divides hysteria into three forms, —the primary, or that which is observed on the first development of the hysterical paroxysm; the secondary, or that which results from the re-application of any cause which excited the primary attack; and the tertiary, or that which is produced by the volition of the patient for the purpose of practising deception, or exciting sympathy. The various opinions of authors as to the seat of hysteria, and as to its immediate cause, are brought forward and discussed; but are all dismissed as unsatisfactory and inconsistent with the known phenomena of the disease. The most general impression, that hysteria depends upon congestion or irritation of the uterine organs, is combated by Mr. Carter, chiefly on the ground that hysteria is occasionally present in the male. Mr. Carter finds great fault with the term *irritation*, which he condemns, as conveying no accurate information to the mind; but we confess that the word appears to us to be a very good one, and to express a morbid condition, which very generally prevails, although its existence can certainly not be proved by anatomical demonstration. Mr. Carter considers the seat of the disease to be in the mind, rather than in the body, and the causes which predispose to, or excite it, to be likewise moral, rather than physical. The abuse of the speculum, in its relation to hysteria, is very severely dealt with by Mr. Carter, who states, as the result of his own experience, that he undertook the treatment of twenty cases of uterine disease, supposed to be peculiarly suitable for local treatment; but that, at the end of six months of scarification and cauterization of the cervix uteri, nineteen of the cases were in the same state as before, and one got well by mere ordinary remedies, without any use of the speculum at all.

The treatment recommended by Mr. Carter is in accordance with his views as to the seat and etiology of the disease; and inasmuch as he believes that hysteria is not associated with any appreciable lesion of structure, or with any *materies morbi* in the blood, he does not believe in the efficacy of any pharmaceutical remedies for its cure. He recommends, therefore, the adoption of moral means for the cure or relief of the hysterical patient; and inasmuch as the presence of relatives or friends interferes very materially with the necessary authority to be exercised by the medical attendant, Mr. Carter recommends that the treatment should be adopted at the house of the physician. It is principally to the tertiary form of the disease that Mr. Carter's remarks are directed, and the general directions that he gives for the moral management of the patient are judicious and sensible. The chief indications are to resist the attempts of the patient to excite sympathy by fictitious paroxysms of the disease, and to direct her mind by gentle steps to useful and profitable employment, bodily as well as mental.

Mr. Carter's book is exceedingly well written, and the language is throughout elegant and concise. It bears, we think, rather too strongly upon the defects of the softer sex, who would not thank the author for some of his remarks; but altogether he has produced a very interesting monograph, which we have read with interest, and which we recommend to the notice of the Profession.

The London and Provincial Medical Directory. 1853. London: Churchill.

We are happy to welcome the eighth annual issue of the "London and Provincial Medical Directory." The present volume has been prepared with the greatest care, and several new features have been introduced which are

worthy of attention. We are happy to find, that in obedience to a general wish on the part of the Profession, no notice is taken of the publications or appointments of homœopaths, whose names, addresses, and titles, are however retained. We do not see how the latter could have very well been omitted; but there was certainly no occasion to append their appointments, and thus give publicity to institutions which we believe to be founded only on credulity and imposture. We only wonder that the homœopaths do not repudiate us, and thus save the trouble of inserting their names at all in any work professing to give a list of gentlemen practising the Medical Profession. The Obituary this year contains among others, memoirs of the late Sir A. M. Downie, Sir Charles F. Forbes, Mr. Dalrymple, Dr. William Thomson, Dr. John Taylor, Mr. Vincent, Sir John Webb, Mr. John Lawrence, Dr. Mantell, and Dr. Merriman.

The Literary and Scientific Register and Almanack for 1853. Dedicated by special permission to, and under the patronage of, His Royal Highness Prince Albert. By J. W. G. Gutch, M.R.C.S.L., F.L.S., Foreign Service Queen's Messenger. London: Bogue. 1853.

The value of this Almanack is in some measure proved by the fact of the present being the twelfth year of its publication; and if it be edited for the future with as much care as has been bestowed upon the present occasion, there is no doubt that it will have a long existence. To mention the materials of which it is composed would take more space than we can afford; suffice it to say, that, amongst much miscellaneous information, there are sections devoted to Anatomy, Physiology, Chemistry, Therapeutics, Phrenology, Astronomy, Optics, Geology, Acoustics, Aerial Phenomena, Natural History, Agriculture, Angling, Building, Photography, Geography, History, and all other conceivable and inconceivable sciences. One of the most important chapters, perhaps, is that devoted to the consideration of Life Assurance, especially upon what is called Deposit Assurance, which is intended to combine all the excellent points of a savings'-bank with an insurance office. The remarks upon this subject are well worth perusal, more especially as the advantages to the assured appear so great, that we can only wonder how such an office is to pay its liabilities or expenses. However, we advise our friends to read and judge for themselves.

GENERAL CORRESPONDENCE.

REPRESENTATION OF THE UNIVERSITY OF LONDON IN PARLIAMENT.

[To the Editor of the Medical Times and Gazette.]

Sir,—In a recent number of your Journal (Jan. 8), a letter appeared from Mr. Allen, Secretary to the York School of Medicine, in which we are informed, that "at a meeting of the lecturers of the York School of Medicine, the representation of the University of London in Parliament was thought highly desirable, inasmuch as the Medical Profession might thereby obtain a more direct voice in public affairs." The lecturers also inquire "the opinions and intentions of the Committee of Graduates as to whether the franchise should be conferred on the teachers in provincial schools, irrespectively of their being graduates of the University."

When, in the autumn of last year, it was considered advisable to take active steps for procuring representatives in Parliament for the University of London, a "Franchise Committee" was formed at the public meeting on the 30th of December, consisting of the principals and professors of many of the Affiliated Colleges, several Members of Parliament, and the Graduates' Committee, for the purpose of carrying out this object. The question of admitting the principals and professors of the Affiliated Colleges, both medical and general, into the franchise, became a subject of careful consideration, and, at present, remains undecided. However, the decision rests not with the "Graduates' Committee," but with the "Franchise Committee," composed as above, in which the interests of the Professors were fully represented. And without wishing in any way to anticipate the decision which may be come to, I may state, that some of the professors, who, at the commencement of the movement, most warmly supported the introduction of the "professional element" into the "franchise," have now given it up; while the inquiries of the "Franchise Committee" have led to the development of difficulties in the working of the scheme which no means have yet been devised to surmount.

I feel that I am expressing the opinion of the "Franchise Committee" when I say, that they will be much gratified to know they have the influential support of the Medical Profession in the provinces, as well as in London, in their endeavour to obtain representatives in Parliament for the University of London.

I am, &c. T. Snow Beck, M.D.,
Secretary to the "Franchise Committee."

NERVOUS AFFECTIONS.

[To the Editor of the Medical Times and Gazette.]

Sir,—Should you deem the following case worthy of a corner in your valuable Journal, will you oblige me by inserting it, as bearing upon the subject so ably spoken of by Dr. Todd, in the Number of the *Medical Times and Gazette* for Jan. 1.

Havant. I am, &c. Wm. Stedman.

October 11, 4 p.m.—Summoned in great haste, and find my patient, Mary ——, aged 60, a large, powerful woman. She complains of severe pain over the epigastrium, which came on the previous day, and which has gradually increased in severity. Pulse 85, soft and regular; tongue moist, covered at the back with a white fur. Bowels not relieved since the 9th.

On applying my hand to the part in pain, immediately over the epigastric region, she screams loudly, almost before I touch her; and gets no relief on my continuing steady and gentle pressure. The pain is never absent, although at times it is so violent as to require two or three persons to hold her.

℞ Æther. sp. sulph. co., tinct. hyosc., spt. ammon. comp., aa. ʒss., in mist. camphoræ statim; to be repeated every hour, until relief is obtained.

Hot salt to be applied in a bag over the epigastrium.

8 p.m.—Pain considerably relieved, and the paroxysms less frequent; quite as much pain, however, on pressure, which still causes loud screaming.

Hyd. chloridi gr. v., in pulv. h. s. s.; to go on with the antispasmodic mixture, should the pain still continue or become more violent, and to take pulv. jalapæ co. ʒj., tinct. zingib. ʒj., aq. menthæ pip. ʒx. mane.

12th.—10 a.m.—Has passed a most restless night, in almost constant pain, accompanied with repeated vomiting. Has thrown up the calomel and the draught. Pulse 86, soft, and regular; tongue moist and furred; no action of the bowels; has passed plenty of pale urine; constant sickness after everything she takes, having thrown up a quantity of acid-smelling bile. Sodæ tart. ʒiij., sodæ sesquicarb. ʒj., tinct. zingib. ʒij., aquæ ʒvj., cap. part. 4tam. secundis horis cum acid. tart. gr. xv., efferv.

8 p.m.—There has been slight diminution of the pain, although there is exquisite tenderness on pressure. She has thrown up two doses of the mixture, and has had constant vomiting of bilious matter all day. Pulse still the same; tongue moist; the bowels very slightly relieved. I give her myself a little brandy and water, with a small piece of dry toast sopped in it, and this she keeps down. To be repeated in an hour, and, if there be no more sickness, to take at 11 o'clock—calomel. gr. iij., hyoscyami gr. v.; and, the following morning, magn. sulph. ʒiij., tinct. zingib. ʒj., in aq. menthæ pip.; emp. lyttæ epigastrio.

13th.—10 a.m.—Has passed a better night; had no return of the sickness; the bowels have acted freely, ridding themselves of copious, offensive, bilious evacuations; pain much relieved; paroxysms less violent, and can bear pressure. Magn. carbon. ʒj., mist. carmin. (similar to the old Dalby's) ʒj., aq. menthæ pip., mist. camphoræ, aa. ʒiij.; cap. part. 4tam 4tis horis.

14th.—10 a.m.—Still better in every respect. Cont. mist.

7 p.m.—Summoned in a great hurry, the woman being much worse. I find her in just the same state as on my first visit, except that the pain and the violence of the paroxysms are more severe. Having now no doubt as to the nature of the attack, and knowing that her secretions were all right, I directed hot fomentations to b constantly applied, sent her an assafœtida and camphor mixture to be taken every three hours, and, at the same time, another of assafœtida and turpentine, with castor-oil, to be used as an enema.

15th.—10 a.m.—Patient wonderfully better; the first dose of the medicine relieved her at once, and the following ones wrought a cure, there being no occasion for the enema. She progressed rapidly towards her former state of health, and in a few days was able to be removed home; and I have heard since, that, soon after her arrival, she had another attack of the "fits," and was very ill.

LICENTIATES IN MIDWIFERY.

[To the Editor of the Medical Times and Gazette.]

SIR,—I am grateful to you for calling attention to the "Licentiates in Midwifery" contemplated by the Royal College of Surgeons, and to Dr. F. Ramsbotham for his excellent and argumentative letter on the same subject. That letter is a complete refutation of the necessity of any such measure, as well as positive proof of its injustice to the Profession and to women, who are most concerned in it. A distinct order of accoucheurs licensed by the College, could only be useful in supplying unhallowed fees to the mercenary College. I wish I could awaken the great mass of surgeon apothecaries from their apathy—we should then have a Reform Bill, which would open the close corporations of our old Colleges, and make them more useful to us and the public. If we must have any new class of midwives, let us have, as the term implies, women who shall be instructed and act under professional men. There is no man who attends to midwifery but is glad to have an experienced woman to leave in charge of his patient during the hours of travail, when his presence is really not necessary, and his time is an object. If he can leave with his patient a person who can manage a case of natural labour, and who knows when to send for him, he is saved much waste of time, and his patient is probably better satisfied than keeping him a long time in attendance. I have often wished, in my own practice, for a better class of such midwives than we find, and with which we are obliged to put up. With Dr. Ramsbotham, I cannot conceive what there can be derogatory in making an examination in midwifery a part necessary for any diploma. Surely it is a matter of great importance to our entire social system—the health and lives of women and children. Ought any professional man to be ignorant of the science or mechanics of everything appertaining to fœtal life and birth? For myself, I consider midwifery in its several relations to be the most important branch of our diversified Profession; and to presume it to be derogatory to any grade would be to offer an affront to the women of England and our beloved Queen at their head. I am, &c. AN OLD SURGEON.

Knilsworth.

RUPTURED PERINÆUM.

[To the Editor of the Medical Times and Gazette.]

SIR,—Some of my medical friends, on whose judgment I place great reliance, have remarked to me, after reading your excellent report (January 15th, page 72) of the paper I read before the Medical Society of London, on "Ruptured Perinæum," as well as the observations of those fellows who addressed the Society, that it might appear as if I claimed the operation as my own. I should be exceedingly sorry that such an impression should for one moment be entertained by my professional brethren, for in my pamphlet, published last year, I distinctly mentioned the names of other surgeons who had successfully performed this operation, and to whom I was indebted for different points of the operation and after-treatment; and in my clinical lectures, at St. Mary's Hospital, I have more fully dwelt on this subject. Allow me again to repeat the names of Copeland, Cooper, Arnot, Holt, Lane, Brooke, Fergusson, and others of my own countrymen; and among the foreign surgeons, Dieffenbach, Zung, and Chelius, in Germany; Ambrose, Paré, Mauriceau, Saucerotte, Lamotte, Montain Roux, Velpeau, etc. etc., in France. All that I intended to claim was, the adaptation of their plans to a perfect whole, and to insist on the necessity of division of the sphincter and the surrounding tissues on both sides of the os coccygis, and also on a careful attention to the minute details of the operation, as well as to the after-treatment; and I desired to show, by twelve successful cases, without one failure, that this serious lesion admitted of reparation more readily than is admitted by most obstetric writers, and therefore that the relation of my cases was worthy the attention of my professional brethren. I am, &c.

16, Connaught-square. J. B. BROWN.

EXTRA-UTERINE GESTATION.

[To the Editor of the Medical Times and Gazette.]

SIR,—Thinking the enclosed case one of rare occurrence in medical science, I have taken the liberty of forwarding it to you, as perhaps it may be of interest to some of your numerous class of readers. I am, &c. E. F.

King's Lynn.

An inquest was held in Lynn, Norfolk, on Monday last, before Philip Wilson, Esq., coroner, to inquire into the cause of death of a young woman named Mary Riches, servant in the employ of Wm. Cooper, Esq., of this borough. It appeared, from evidence, that the girl was taken suddenly ill, and Mr. Thos. Allen, surgeon, was called in. He deposed to having seen the deceased about one o'clock on the previous day, and administered powerful stimulants with a view to rouse her. The symptoms were very obscure. Left her, and went again about four o'clock and found her dead. Made a *post-mortem* examination of the body, in conjunction with Mr. Layle, surgeon; found, on opening the body, about four or five pints of blood in the abdomen, which was the immediate cause of death. She was two or three months advanced in pregnancy; she was suffering under what was called extra-uterine gestation. Impregnation had taken place, but the child had never entered the womb; it had remained midway in the Fallopian tube, where it had produced an unnatural enlargement. This had produced the hæmorrhage from which the girl had died. Such cases were very rare in medical science. Deceased was about 22 years of age. It was impossible to tell the cause of the obscure symptoms without a *post-mortem* examination. After hearing the evidence, the Jury, by direction of the Coroner, returned a verdict of "Died by the Visitation of God."

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Mr. HODGSON, F.R.S., President, in the Chair.

Dr. Monroe communicated an interesting case of popliteal aneurism treated by pressure, but we regret to say that we have received no abstract of the particulars furnished by that gentleman to the Society.

THE PARTICULARS OF TWO CASES OF POPLITEAL ANEURISM TREATED BY COMPRESSION, WITH SOME GENERAL OBSERVATIONS ON THAT PLAN OF TREATMENT.

By BENJAMIN PHILLIPS, F.R.S., Surgeon to the Westminster Hospital.

The author's objects in laying this paper before the Society, were to obtain a permanent record of perhaps a unique case—one of popliteal aneurism on each side in a female,—and to obtain a deliberate consideration by the Society of the treatment of aneurism by compression. As a proof of the necessity for further deliberation on this subject, he referred to the different estimate of the general applicability of the remedy in Dublin, London, and Edinburgh. The author alluded to the want of some tribunal before which important questions should be brought and discussed, as is done in the Academy of Medicine at Paris, where a subject such as the present would be referred to a Committee to report upon, and a discussion would take place on the report.

Catherine C——, aged 39, a market-woman, tall and gaunt, was admitted into the Westminster Hospital on December 3, 1851, with a pulsating tumour in the right popliteal space. She had observed a stiffness about the right knee about two months before admission. She followed her occupation, and carried heavy loads on her head; but gradually the part became more painful, especially after her day's work. Three weeks before her admission, in getting into a cart, the limb was stretched, and she felt something give way in the ham. The pain suddenly increased, and in two days extended to the ankle. Her habits of life were unfavourable; she was a confirmed gin-drinker, and she laboured under great nervous excitement and apprehension. The heart's action was most tumultuous, but no signs of disease could be detected along the course of the large internal vessels. There was a pulsating tumour in each popliteal space. That on the right side commenced in Hunter's canal, a little above the point where the artery enters into the popliteal space, and extended beyond the middle of that space. It could not be emptied by any amount of pressure. The tumour on the left side was situated lower down in the popliteal space; was smaller, and with less violent pulsation. The treatment was at first directed to her general condition; it consisted of a moderate diet, with abstinence from fluids: ice and ice-cold water were applied to the tumour. Under this plan she improved; and at the end of a fortnight it was determined to try the effects of moderate pressure on the side of the larger tumour. From her alarm at the sight of an instrument invented by the author, it was thought prudent to commence proceedings by means of a simple ring tourniquet, the pad being fixed near the apex of Scarpa's triangle. It was screwed tight

enough to cause the pulsations to become imperceptible to the touch. At the end of two hours the pain was so great that it became necessary to remove the pressure; and in place of the tourniquet, a Signorini's compressor was applied at the groin. It slipped, however, after nearly three hours, but was re-applied for the night; but in the morning it was found to have slipped again. During the day and night moderate pressure was kept up by means of the ring tourniquet, the situation of which was altered from time to time, and this was continued during the succeeding day. The pulsation of the tumour had evidently lessened, the knee looked shining, and the leg was slightly œdematous. During the night the author's compressor was used. Pressure was continued during the following day and night; the ring tourniquet was used, and with slight intervals the pressure was continued for seven days longer, when the tumour was carefully examined; it felt more solid, and no whiz could be detected when all pressure was removed. The pressure was more or less steadily applied for twelve days more. At this time there was more fulness about the knee and ham; no whiz could be heard; but there was a general elevation of the mass, synchronous with the heart. After two days' interval, pressure was again applied, and continued at intervals for eleven days. It was believed, however, that the treatment had failed, and that the aneurism had become diffused; and, as a last chance, ligature was applied. She died on the seventeenth day after the operation; and, on examination, a clot was found extending from the ligature to the aneurism. The posterior ligament of the knee-joint was ulcerated, and the cavity of the joint contained sanguineo-purulent fluid. The aneurism in the left side appeared to consist of a fusiform dilatation of the artery, and contained concentric laminæ of coagulated blood. There was a large aortic aneurism commencing below the origin of the cœliac axis. The aorta and many other arteries presented extensive fatty degeneration.

George S——, aged 31, a navigator, admitted July 8th, with a popliteal aneurism of the size of a turkey's egg. It had begun six months before from a strain. Six weeks after this, he observed a "knot" in the bend of the knee, which gradually increased to its present size. His health was good, and the circulating system tranquil. The characters of aneurism were very marked, and when firm pressure was applied on the artery at the groin, the tumour disappeared. It was found that he had been treated by compression at the Reading Hospital, and the author was furnished with particulars of the case by Mr. Bulley, from which it appeared that pressure was applied for three weeks, by which the tumour became less, and lost its elastic feel. It was noticed that at night, when the pressure was entirely removed, the pulsation ceased; but that when it was re-applied the pulsation returned. Obstructive pressure was now applied for some time, but the man became impatient, and refused to allow any treatment. He was consequently discharged.

Although it appeared that a fair trial had been made, yet the author was induced to repeat the compression, and Dr. Carte saw the case, and aided the author with his instrument. The author here proceeded to describe the instrument. It was applied the 14th of July, and no pulsation could be detected in the tumour, which was completely emptied. The kind of pressure was varied as well as the situation. In three days it was noticed that the tumour could no longer be emptied, and that it contained coagula. The pressure was now continued: and, on the ninth day, the tumour was quite firm, and there was no pulsation in it. Since that time the patient has remained quite well.

After commenting on the different effects noticed at the Reading Hospital, and under his own treatment, the author adverted to the fact, that authorities were still found in opposition to the treatment of aneurism by compression. It must, however, be judged of by its results; and if it be shown that more cases were cured by it than by ligature, it would ultimately be preferred. Mr. Syme's statement, that he had tied the femoral twenty times without bad results, did not agree with the experience of this operation in the hands of others; and it appeared, by reference to cases, that the failures amounted to between one-third and one-fourth of the whole. The treatment by compression was far more favourable, its failures not exceeding one-fifth of the whole; and even when it failed, the patient's life might be saved. The question, whether there were any objections to this mode of treatment so serious as to make the surgeon hesitate to employ it, was answered by the author in the negative; and he objected to Mr. Syme's description of the time employed and the pain to be endured under it, as not a fair statement of the case. He admitted that cases had occurred where great suffering had attended the treatment by compression, but he conceived that this was unnecessary, and not the common result. It originated in a mistaken notion, that it was necessary to stop the current of blood entirely in order to effect a cure. Mr. Todd did not think excessive pressure necessary; but those who followed him, for some time acted on the opinion that what the ligature does, must be done by compression. But it had been proved that an aneurism might be cured although the whole supply of blood be not completely cut off, even when the ligature has been used. The author maintained, then, that the surgeon was justified in adjusting the pressure to the enduring powers of the patient, rather than to the almost complete extinction of pulsation in the sac, provided the pressure be sufficient to produce a decided diminution in the force of the pulsation. As to the most eligible point for applying the pressure, he thought it should be where it can be best borne, and where it occasioned the smallest amount of inconvenience; and he did not think it of consequence that the pressure should be applied above the profunda. It was important, however, that the return of blood by the veins should be as little as possible interfered with, and for this reason he believed that the immediate neighbourhood of Poupart's ligament was the most desirable situation, while, at the same time, a smaller amount of pressure was necessary at that point. The author maintained that the pressure should be applied gradually, and not suddenly, so as to admit of the enlargement of the collateral vessels; and he thought it is clearly established, that continuous pressure was not absolutely necessary. The author concluded by saying, that he was justified in asserting, that pressure should be applied at points where it can be best borne, provided it be not too far removed from the sac; that, if possible, it should be so applied as not to prevent the return of venous blood; that it should be strong enough to produce a sensible influence on the strength of the pulsation in the tumour; and that it may be intermitted to a sufficient extent to make the treatment tolerable to the patient.

The President regretted that nobody rose to open the discussion on the interesting and important question before them. It was very desirable, as Mr. Phillips had remarked, that the opinions of the highest surgical authorities in the Profession should be obtained, if possible, on the merits of that manner of treating aneurism which had been illustrated by the cases brought forward by Dr. Monroe and Mr. Phillips; and he feared if these opinions were not expressed the charge of neglecting to estimate carefully the advantages and dangers of this important innovation might, as Mr. Phillips had intimated, be justly alleged against them. Above all, it was necessary to compare the results of compression with those of deligation of arteries affected with aneurism, in order that the superiority of the former plan, if such superiority existed, might be duly ascertained and properly established by well-authenticated experience. It was desirable, too, that the mode in which compression operated to cure aneurism should be clearly explained; as much doubt and many false notions were entertained on this point. He believed that the manner in which the treatment especially advocated by the Dublin surgeons proved successful was very much misunderstood. The arterial channel was not obliterated at the point of pressure, nor was it wished to be so; there were cases indeed in which the artery became closed below the seat of pressure by the extension upwards of the selfsame process by which the aneurismal sac became itself obliterated, but this was by no means invariably the case. In not a few instances the aneurism was filled by the deposition of coagulum, but the artery itself remained completely pervious, and this although the opening into the sac was wide and extensive. He was not acquainted with a single instance in which the artery became obliterated at the point of pressure, and thence downwards to the aneurism, as happened after the application of a ligature. He was inclined to believe, that the amount of pressure required for the absolute obliteration of an artery was greatly under-estimated. Many years ago he instituted some experiments on horses, with a view of satisfying himself on the subject, and he found that an enormous amount of force was required to produce the obliteration of an artery in those animals, even when the vessel occupied comparatively a superficial situation. Respecting the mode in which pressure effected a diminution of an arterial canal, he would remark, that it was not, in his opinion, dependent on mere mechanical force; the principal and most efficient auxiliary being, he believed, the muscular coat of the artery itself. It had been shown by histologists, that as arteries decreased in size they acquired a muscular coat which was developed at the expense of the elastic tunic, and might be found without difficulty in arteries of the third magnitude, such as the radial and anterior tibial. By virtue of this muscularity, small arteries were enabled to close themselves completely when cut across, as happened in amputations; and he considered that the pressure exercised on the artery excited to action this contractile tunic, and thus the canal of the artery became diminished, even to some distance below the point at which the pressure was applied. Moderate pressure, discontinued, if necessary, from time to time, and again resumed, was, he thought, far more suitable than any other, the object being not to cut off the

supply of blood altogether, but only to lessen the area of the stream, and so enable coagulation to take place within the aneurism. Among the many evils which resulted from powerful pressure, he might mention inflammation of the veins and secondary phlebitis, as the veins, from their greater delicacy of structure, were unable to support, without injury, an amount of pressure which might be inflicted on the arteries with impunity.

Mr. Fergusson believed that it was not from want of interest in the subject that any delay had taken place in opening the discussion; but more, he thought, from a general desire on the part of the Fellows to hear the opinion of the President himself. He (Mr. Fergusson) fully agreed with Mr. Phillips, that the opinion of the Society should be given with reference to the treatment of aneurism by compression; and he sincerely hoped that opinion would no longer be withheld. Personally he fully approved of the practice, and quite agreed with the Dublin surgeons in their estimate of its value. About forty-five cases were now on record, and he believed only two of these had terminated fatally; while, out of 100 cases in which a ligature had been applied to less important arteries, sixteen had died. The advantages of the proceeding in aneurism of the lower extremity were clear and decisive, and could not be disputed; but whether it would be equally serviceable when applied to other parts was very doubtful, and perhaps not to be expected. A peculiar feature in Dr. Monroe's case was the application of pressure by the hand. This method appeared to him far better than any other, and should, he thought, be always employed when practicable. Surgeons were disposed to despair of success by compression too quickly, and to abandon the plan before a fair trial of it had been made; thus many cases had been set down as failures, in which the treatment might, in all probability, have succeeded, had it been properly persevered with. He had seen a case in which the sac continued to pulsate after intermittent pressure had been applied to the artery for six weeks, which nevertheless became subsequently filled with coagulum, and cured by persistence in the plan. He could not agree, however, with the President, that the results of compression were attributable to contraction of the muscular coat: in his opinion, they were rather to be ascribed to the quiescent state in which the vessel was placed, and to the slow and diminished current of blood that traversed its channel—conditions very necessary for the cure of aneurism. In Dr. Monroe's specimen, he had noticed that the artery, from the superficial femoral down to the sac, was not lessened in calibre, showing, he thought, that the effects were produced entirely by the pressure. It was neither necessary nor desirable completely to cut off the supply of blood; and it had been conclusively demonstrated by Mr. Wardrop, (to whom the Profession were indebted for much valuable information on the subject), that the supply of blood was not completely cut off, even by the application of a ligature, a certain quantity finding its way into the arterial channel by inosculating branches, and thus affording material for the formation of coagulum, and the deposition of fibrine by which the sac became ultimately obliterated.

The President thought the completely pervious condition of the artery, in Dr. Monroe's case, was a proof of the doctrine he had advanced; for, if the artery had been narrowed by any other influence except the contractility of its own muscular wall, inflammation would have been produced at the seat of pressure, which would either have caused complete obliteration of the arterial canal, or else have left evidences of its existence. The discovery that complete obstruction to the passage of blood through an aneurismal sac was not effected by deligation of the artery above, nor at all desirable, if it could be effected,—a discovery justly esteemed by Mr. Fergusson of the highest value,—was not due to Mr. Wardrop, but to John Hunter. Mr. Wardrop had undoubtedly given the Profession much useful information respecting aneurism, but, in this particular, he had but enunciated a statement previously made by Mr. Hunter.

Mr. J. Wilson thought that the President had offered a beautiful and adequate exposition of the effect of pressure on an artery. He conceived, however, that it was scarcely possible for the vessel to undergo no alteration in structure at the seat of pressure; and he believed the effect of that pressure was to disturb the relation hitherto subsisting between the walls of the artery and the blood running within it, so that a series of changes were set up in the aneurismal sac with which they were but imperfectly acquainted. It had been mentioned in Dr. Monroe's case, that the artery was pervious down to the sac, and that its coats were natural; but nothing had been said about the state of the cellular sheath, and he should be glad to know from Dr. Monroe whether this structure exhibited any unusual appearances.

Dr. Monroe, in reply, said, that nothing unusual was visible in the sheath of the vessels, which presented its ordinary healthy appearance.

Mr. Curling had seen two cases of popliteal aneurism, in which the treatment by compression of the femoral artery had been successful. He thought, however, great care was requisite in its application, for he had seen excoriations and sloughing readily produced by pressure by no means excessive. It had been stated that it was impossible completely to obliterate the canal of an artery by external pressure, but he had seen two cases in which secondary hæmorrhage took place after amputation, evidently in each instance from a large artery, which was completely controlled by the application of firm pressure on the upper part of the thigh; and he had seen an instance in which similar treatment was equally efficacious in preventing hæmorrhage from a divided vessel of large size in the arm; and these circumstances induced him to suspend his assent to the opinion that it was impossible to cut off entirely the flow of blood into an artery by pressure.

Mr. Phillips remarked, that he brought the subject before the Society a second time, because he considered the manner in which pressure was at present employed wanted modification and improvement. It had been undoubtedly successful in a number of cases, and was certainly superior to the ligature in many respects. There were, however, objections to its use, foremost among which was the pain frequently occasioned by it. He believed this might be mitigated, and, in many instances, completely abolished, by adopting less severe pressure. It had been shown that severe pressure was not only not essential, but inferior in point of success to moderate pressure; there was, consequently, neither excuse nor necessity for applying it. He had laid it down as a principle in his paper, that moderate, long-continued pressure, intermitted from time to time, if requisite, would generally prove successful. It was well known there were some cases which could neither be cured by ligature nor compression, and one of those recorded by him afforded an instance of this kind. In the case to which he alluded, the artery gave way in its front wall immediately behind the knee-joint, so that pus and sanious fluid were found within the articulation. Now, it was stated by the Dublin authorities, that whenever the popliteal artery gave way in this situation, an invariably fatal result followed; and if such were really the case, then the instance to which he referred could not be taken as any evidence against the treatment by pressure, since whatever measures had been adopted must have been equally futile. He had come to the conclusion, that pressure, rightly adjusted and well managed, might be tolerated by almost every patient affected with popliteal aneurism with very slight inconvenience; and as the system was thus divested of many of the objections urged against it, he trusted it would be universally employed in cases suited for its application.

The Society adjourned at the usual hour.

MEDICAL SOCIETY OF LONDON.

Mr. Bishop, F.R.S., President, in the Chair.

Mr. Haynes Walton introduced a

NEW KIND OF CURETTE,

and prefaced his description by remarking, that it was more particularly true of ophthalmic operations than those of general surgery, that success depends on the perfection of the instruments employed; and that to lessen the defects of any instrument was much the same as to improve the branch of surgery to which it belonged; that among the niceties required for the successful extraction of a cataract, must be enumerated the use of the curette for the complete laceration of the capsule of the lens; yet that important process was often imperfectly executed from the difficulty of using the curette. The flaccid state of the eye which succeeded the section of the cornea, rendered the ordinary curette very liable to be entangled in the iris, not only during its introduction, but withdrawal also, from the eye; and, although there had been some modifications in the instrument, consisting in reduced size, yet the imperfection of it still remained. He proceeded to state, that the curette he had the honour to present to the Society overcame the impediment in question. It was one of small size, to which was fitted a guard that was worked by a spring and a trigger. When the instrument was closed, the extremity was quite blunt, being incapable of getting entangled in the iris. By pressing on the trigger the guard was withdrawn, and the extremity exposed ready for use. He spoke of the very ready manner in which it could be employed, and mentioned having fairly tested it on several occasions in the living body. The instrument was introduced shut, and carried through the pupil to the capsule of the lens, when it was opened, used, then allowed to close by remitting the pressure on the spring, and in that state withdrawn.

Mr. Borlase Childs brought before the Society an example of

CANCER OF THE BREAST.

Susannah Pickburn, aged 60, applied to Mr. Childs in August last, with cancer of the left breast. About eleven years since, she first discovered a small red spot over the left nipple, of which she took little or no heed. In the course of three years this was attended by a circumscribed movable induration, situated near to the axillary border of the gland, which gradually increased until it attained the size of a pullet's egg. At this period the breast became swollen, of a livid hue, and the superficial veins grew varicose and enlarged. Although at first there was little pain or inconvenience attending the tumour, it now became affected with paroxysms of a severe lancinating character, and the use of the left arm was much impaired. Four years subsequently, and seven from its commencement, the breast had become almost of a purple colour, the nipple had lost its natural prominence, and was sunk considerably below the level of the surrounding skin,—the latter being puckered and furrowed. The pain now was of so severe a character, that she was induced, for the first time, to seek medical aid; but, having been advised to have it amputated, she, from scruples of her own, refused to undergo the operation. Nothing, therefore, was done, and the disease was allowed to take its course. In about two years the skin corresponding to the most prominent part of the morbid growth began to ulcerate, a thick crust covered its surface, accompanied by an oozing from beneath of a thin sanious discharge. This scab fell off and left a deep sloughing hæmorrhagic ulcer, which bled for three or four days consecutively. It increased rapidly, and, at the time she consulted Mr. Childs, measured about three inches in diameter. The appearances it then presented were of such an alarming character, that Mr. Childs entertained but slight hopes of effecting any good by treatment. Its edges were elevated and everted, the surrounding integuments greatly swollen, and of a dark reddish colour, and sloughing was going on to a considerable extent. The odour was most offensive, so much so that her presence even was disagreeable to her friends. She suffered intensely from anxiety of mind, and the pain and discomfort attending the disease. Such being the state of things, Mr. Childs was induced to try what could be effected by the application of the acid nitrate of mercury, having obtained the most happy results from the employment of this caustic in the sloughing phagedæna of syphilis. The whole of the ulcerating surface, as well as the edges, were freely touched with the caustic, and this was repeated three or four times, allowing an interval of some days to elapse between each application. The sore was washed daily with a lotion composed of two drops of nitric acid and twenty of opium-wine to an ounce of camphor-water, the whole enveloped in a carrot-poultice; and a pill composed of one-sixteenth of a grain of iodide of arsenic and three of extract of poppies was ordered to be taken three times a day, which had been continued up to the present time, omitting it only at periods when it appeared to produce gastric irritation. In about a fortnight, Mr. Childs had the satisfaction of seeing healthy granulation springing up, and cicatrization commencing from the edges of the ulcer. This continued until about the middle of November last, when the whole of the sore had healed, cicatrization was completed, and was in the state in which he had the pleasure of exhibiting it to the Fellows of the Society. Immediately the ulcer had assumed the healthy aspect referred to, it was freely painted over with a solution of gun-cotton, and afterwards enveloped in fine carded wool. He (Mr. Childs) would not presume to say that the case was thoroughly cured, nor could he offer any guarantee against a return of this formidable disease; but he considered it to be one of sufficient interest to demand the attention of the Fellows, and to be recorded in the Minutes of the Society. He believed that there were cases on record of spontaneous elimination of cancer, such as those referred to by Nicod, Bayle, Dupuytren, Richeraud, Cruveilhier, and, amongst our own countrymen, Cline, Sir Everard Home, and others, in which a total separation of the morbid growth induced by spontaneous sphacelus, had been followed by complete recovery. Mr. Travers also relates the case of a female falling under his notice, in whom a large scirrhous tumour was effectually absorbed by a solution of chloride of lime. He (Mr. Childs) was not prepared to say how much of the success attending this case was dependent upon the internal administration of the iodide of arsenic, or how much upon the local remedies he had employed; these were questions which it was impossible to solve; but thus much he was prepared to say, that the success attending the combined treatment, in the present case, afforded him some hope, that, in patients with whom the cancerous cachexia did not predominate, much good might be done towards relieving their sufferings, or, as probably in the present instance, eradicating the disease from the system.

The patient was here introduced to the Fellows.

A discussion on the case brought forward by Mr. Childs took place, in which Mr. Walton, Dr. Crisp, Dr. Henry Bennett, Dr. Murphy, and Mr. Gay joined. A doubt appeared to be entertained by some of the Fellows as to whether the disease had been truly cancerous. Mr. Gay, however, said that he had seen the case prior to the destruction of the growth, and had no question at all respecting its cancerous nature. An instance was related by Mr. Gay, in which a quantity of the acid nitrate of mercury, taken by a woman for the purpose of poisoning herself, produced in a very short time profuse salivation; the effects of which, in Mr. Gay's opinion, contributed to hasten her death.

Dr. Henry Bennett also related instances in which slight symptoms of salivation had followed the application of the acid nitrate of mercury to the os uteri.

Mr. B. W. Richardson directed the attention of the Society to a new form of cupping-glass which he had recently had made. The glass differed from the ordinary ones in the following particulars:—At the top there was an opening, surrounded by a strong brass collar, which received an accurately fitting brass stopper. The stopper was perforated from bottom to top, and was capped with a small oil-silk valve. From the bottom part of the stopper a tube projected, in which a piece of cotton wick was fixed. When the glass was used the stopper was withdrawn, the mouth of the glass was placed on the body of the patient, and the wick before named having been dipped into spirit and ignited, was introduced into the glass with the stopper at the top. The atmosphere escaped by the valvular opening in the stopper. The advantages of this glass over other kinds were, first, it was more easily applied, and there was no risk of burning the patient in using it; secondly, it was more easily removed after application; thirdly, by moving the stopper gently upwards the suction-power of the glass could be moderated at the will of the operator. In using the instrument, the cotton wick ought not to be too large. Weiss and Son were the makers.

Dr. Wagstaff read a paper on

THE CAUSES AND TREATMENT OF PARTIAL AND ENTIRE LOSS OF VOICE.

After giving a brief description of the anatomical relations of the several organs concerned in the production of voice, he stated that, from some misunderstanding of terms, he had been supposed by some to have asserted that a sponge-armed probang cannot be passed into the larynx at all, simply because he had declared his disbelief in the practicability of systematically passing an instrument through the glottis, or the rima glottidis into the trachea,—"glottis" being considered by such to refer to the first entrance to the larynx, at the base of the epiglottis; but he used the term as naming that space in the larynx intervening between the vocal ligaments of each side, a point about three-quarters of an inch below the first entrance to the larynx. Dr. Wagstaff then proceeded to define sound, and entered into some observations on the physiology of the human voice, alluding to the experiments of Dr. C. B. Williams and others, which had proved a contractility to exist in the lower part of the trachea and bronchial tubes; and the author doubted whether, if two points having the power of contractility exist in the vocal instrument, one the lower part of the trachea and the bronchial tubes, the other the glottis, it would be unreasonable to suppose, that if the contracting action at the second point be indisputably useful in the production of sound, that at the first point may also exert some similar influence. After making further remarks upon this proposition, Dr. Wagstaff said he was inclined to the opinion, that the bronchial tubes and trachea are much concerned in the production of pure musical sounds, and that the voice sounds proceed from the action of the larynx. He thought an argument in favour of this proposition might be fairly drawn from the fact he had often observed in cases of aphonia, that either the power of creating the full range of musical notes does not fail, even though the loss of voice be entire, or else the musical voice is regained a considerable period before the return of the speaking voice. He also alluded to the well-known facility that some stammerers have in singing, although unable to produce at will vocalized articulate sound. Would not this fact, he asked, rather go to prove that a certain set of organs in the vocal apparatus which are devoted to the production of the speaking voice have not been brought under the control of the will, whilst a certain other set, whose function is specially concerned in the creation of musical sounds, are wholly subject to the nerves of volition. Dr. Wagstaff adduced several other arguments in favour of the proposition, that the trachea and bronchial tubes are intimately concerned in the production of pure musical sounds. He then proceeded to consider the various lesions and pathological alterations in the pharyngo-laryngeal mucous membrane that interfere with the elasticity, tension, or integrity of

structure, that is admitted to be essential to that vibratory action in the tube which is concerned in the production of sound. Relaxation of the membrane interferes with the sonorous action of the tube, by depriving it of the tension requisite for sustaining the vibratory movement. Thickening equally tends to prevent the emanation of certain and pure sounds, by the inelasticity it occasions in the mucous membrane; and ulceration, by its disturbance of the continuity in the membrane, prevents a uniformity in the communication of molecular vibrations, and thus disturbs the production of clear vocalised sounds. The author recommended local treatment in these cases of morbid alterations of the mucous membrane. His experience had shown him, that congestion, chronic thickening, erosions, follicular alterations, relaxation, or ulceration of the pharyngo-laryngeal membrane might produce partial or entire loss of voice, and that these pathological conditions are mostly amenable to the local application of caustic solutions, conjoined with judicious general treatment. For making these topical medications, Dr. Wagstaff said he preferred the sponge-pointed probang to any other instrument that had been proposed. He urged the importance of always exposing the epiglottis to the view of the operator before an attempt be made to pass an instrument into the larynx. Unless this rule was strictly followed, the operation must become nothing more than an unscientific, hap-hazard, chance-thrusting of the probang at the laryngeal cavity, with far greater probability of entering the broad and easy way leading to the stomach than the less accessible tube chiefly concerned in the production of voice. The author then referred to the positive danger there existed of pushing the epiglottis forcibly into the top of the larynx, when that organ had not first been brought to view as a guide to the operator. He then proceeded to discuss the possibility of systematically passing an instrument below the rima-glottidis into the trachea, expressing his opinion, that it was impracticable, and reviewing the various anatomical obstacles to the performance of this operation. He stated that he considered the rule to be, if no cough or spasmodic expiratory effort accompany or follow the operation, the sponge has not passed into the larynx. Dr. Wagstaff combated at some length the asserted possibility of passing an instrument into the trachea and down to and even into the bronchial tubes, and then related several cases of aphonia and dysphonia, that completely yielded after the lesions and morbid alterations of the pharyngo-laryngeal mucous membrane had been healed by the use of suitable topical medication, conjoined with general treatment.

Dr. Crisp thought the author had lost sight of the most frequent cause of aphonia,—namely, disorder of the nervous system. It was well known that hysteria was by no means a rare cause of aphonia in women. He was acquainted with an instance in which a young lady who had lost her voice for some time, happened to be riding in a carriage, and suddenly saw a man thrown out of a cart; this frightened her so much that she screamed out, and was afterwards able to articulate distinctly. He did not agree with the physiological views advanced by the author concerning the formation of the singing voice at the bronchi by virtue of the contraction effected in these tubes through their muscular fibres, and thought that such a view was altogether unsupported by the revelations of comparative anatomy.

Dr. Wynn observed, that he wished to offer a few remarks on the treatment advocated by the author as most appropriate to that form of aphonia which formed the chief subject of his paper. He would allude, especially, to the practice of applying topical remedies to the larynx,—a proceeding, as it appeared to him, by no means devoid of danger. He had once seen a child nearly suffocated by a drop of a solution of nitrate of silver falling down the trachea during an application of this sort, and he was therefore disposed to believe that the remedy, however efficacious it might be, was at least in some degree hazardous.

Dr. Cotton said, he was surprised that the author had made no allusion in his paper to the general treatment advisable in cases of aphonia or dysphonia. Loss or impairment of voice proceeded from various causes, and, in some instances, topical medication was undoubtedly advantageous, while in others it was not so. What treatment, then, was to be adopted in those cases which were unsuited for the employment of local remedies? The practice of applying astringent or caustic solutions to the mucous membrane of the larynx, was, in his opinion, quite safe and justifiable; but he recommended a brush to be passed into the larynx before the application of the caustic solution, which would prepare the mucous membrane for the irritation, and prevent any great discomfort.

Dr. Henry Bennett thought it was the intention of Dr. Wagstaff only to allude to one form of aphonia, viz., that arising from the presence of chronic ulcers in the larynx. It was no doubt true, as Dr. Cotton had remarked, that loss of voice might be produced by other causes, and, as in aphonia clericorum or hysterical aphonia, might be unattended by any perceptible alteration in the structure of the laryngeal tissues. He believed that, in women, aphonia was frequently connected with disease of the uterus; and he was acquainted with the case of a lady who suffered recurring attacks of inflammation of the uterus, and, whenever these attacks came on, her voice became greatly impaired, and sometimes was entirely lost. It had been ascertained by Malgaigne, that the larynges of married women underwent an increase in size, and this increase appeared to bear a proportion to the number of pregnancies through which the women had passed. He believed that caustic solutions might be applied with perfect safety to the larynx; for, though he had seen dyspnœa of a rather violent character occasionally supervene, he had never witnessed any disastrous results in consequence of it.

Mr. Dendy was inclined to think Dr. Wagstaff had not confined himself so closely as could have been wished to the subject which he proposed to consider in his paper. It was not, however, his (Mr. Dendy's) intention to diverge from the practical point, but to allude simply to cases in which the application of a caustic solution might be beneficial or otherwise. He was not at all disposed to believe that topical medication was applicable only to cases in which some structural lesion could be discovered. He had seen it employed with great advantage in cases of nervous aphonia, and it was known to have been productive of the best results when applied to singers who had suddenly lost their voices. He was acquainted with a very singular example of nervous aphonia, in the person of a young lady who some years ago became unable to speak. While visiting the Great Exhibition, her admiration was excited by a jewel of surpassing beauty; she was assured by her friends that the jewel should be given her if she uttered its name. This she managed to do on the following morning, though with great difficulty, but ever since her condition has been decidedly worse.

Mr. Hunt was opposed to the author's view respecting the origin of the singing voice, which, he thought, was produced by the same apparatus as the speaking voice. He had seen the application of a strong solution of nitrate of silver productive of the greatest benefit in some cases of aphonia, and thought, when properly applied, there was little danger in its use.

Dr. Murphy observed, that if the aphonia in Mr. Dendy's case were attended with any uterine derangement, it would be better to direct attention to that, as it was not improbable, when the organ was brought into a healthy state, the power of speaking would return. If, however, no such derangement existed, he should not recommend topical medication, as he considered that loss of voice depending on disordered nervous influence would not be likely to derive benefit from the application of a caustic solution.

The President remarked that Dr. Wagstaff's opinion concerning the formation of the singing voice was untenable at the present day, because it had been clearly shown, both by Möller's experiments and his own, that it was possible to produce every sound of the human voice by blowing through a dead larynx with a pair of bellows from below. With regard to those cases of aphonia in which there appeared to be no lesion of the laryngeal structures, but simply a loss of function, he had published a paper some time ago, in which the necessity of a certain unison between the vibrations of the soft tissues and those of the true vocal chords was clearly stated. Now, sometimes the mucous folds of the larynx, influenced by some physical cause, with the nature of which he was unacquainted, became lax, and ceased to vibrate in unison with the vocal chords. Abolition or great impairment of voice followed, produced apparently not by any structural lesion but by functional derangement, and in these cases the laxity of the mucous folds might be removed, and the voice restored by the application of a powerful solution of nitrate of silver to the larynx. He had occasionally employed a saturated solution with the best results.

Dr. Wagstaff stated, that the object of his paper was to bring to the notice of the Society the nature of those local lesions in the mucous membrane of the vocal apparatus, to which hoarseness and loss of voice were so frequently due; and also to show that these lesions might almost always be cured by topical medication. On this account he had said but little upon those cases of dysphonia that occur at the approach of the first menstruation in women, or at the other critical period, when this uterine function ceases, nor of those cases depending upon nervous atony. He was aware of the frequent occurrence of these cases, and related a case to show the intimate sympathy that exists between an abnormal condition of the uterus, and the functions of the organs of voice. But in this paper, in addition to the subject before referred to, he had been anxious to invite discussion upon the possibility of making topical applications to the trachea and bronchial tubes, as it was of great importance that this question should be decided by the Profession.

METROPOLIS.

TABLE showing the MORTALITY for the YEAR 1852, and in EACH WEEK of the YEAR, the several DISEASES, BIRTHS and DEATHS of MALES and FEMALES, AGE at DEATH, the DISTRICTS in which the DEATHS occurred, the TEMPERATURE and METEOROLOGY, and the INCREASE of POPULATION.

COMPILED BY MR. B. SMITH.

DATE.	ZYMOTIC DISEASES.	SPORADIC DISEASES.																BIRTHS.		DEATHS.		TOTAL BIRTHS.	TOTAL DEATHS.	BIRTHS OVER DEATHS.	AGES AT DEATH.			DISTRICTS.					Mean Height of BAROMETER.	THERMOMETER.		Difference between the Temperature of the Week and that of the Week on average of 7 Years.	General Direction of the Wind.	Amount of Horizontal Movement of the Air.	Rain in Inches.
WEEKS ENDING		1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	Males.	Females.	Males.	Females.				0 to 15.	15 to 60.	60 and upwards.	West.	North.	Central.	East.	South.		Dry.	Dew Point.				
1852.																																Inches.	°	°	°		Miles.	
JAN. 3	234	47	192	144	69	253	58	12	7	10	4	4	45	22	55	27	111	905	869	692	605	1774	1297	477	593	445	258	205	250	194	285	363	30·001	36·0	30·9	+ 1·0	S.W.	425	0·06
,, 10	228	45	163	131	45	249	73	18	12	10	5	8	27	17	53	2	22	808	734	593	518	1542	1111	431	480	347	284	183	221	185	201	321	29·612	40·0	31·4	+ 3·8	S.W.	1465	0·12
,, 17	207	45	187	117	60	218	63	10	11	10	2	2	42	21	60	2	30	762	727	540	556	1489	1096	393	477	360	253	163	226	165	219	293	29·467	46·3	41·4	+ 9·5	S.W.	1030	1·76
,, 24	220	42	171	127	37	198	64	16	7	8	5	6	23	32	56	8	41	788	810	528	533	1598	1061	537	514	314	233	162	185	176	230	308	29·688	41·8	35·5	+ 4·2	S.W.	1195	0·44
,, 31	215	39	189	105	35	176	71	12	10	7	5	5	24	31	46	3	16	822	794	501	501	1616	1002	614	445	335	212	140	221	167	199	275	29·716	42·1	36·4	+ 3·7	S.W.	940	0·54
FEB. 7	201	40	206	117	46	171	53	14	8	6	2	5	33	15	42	13	39	860	806	497	519	1666	1016	650	437	346	223	133	196	171	232	284	29·805	47·0	41·4	+ 8·3	W.S.W.	1463	0·32
,, 14	191	36	180	124	44	185	51	8	4	7	2	5	32	19	43	7	29	803	798	492	478	1601	970	631	441	332	197	129	194	160	237	259	29·645	38·8	33·5	+ 0·1	N. & S S.E.	150	0·22
,, 21	192	56	213	120	54	203	50	14	7	10	2	1	23	19	55	11	41	765	824	544	528	1589	1072	517	452	383	237	165	211	187	233	286	29·871	39·8	32·6	+ 0·8	W. & N.	1260	0·03
,, 28	208	47	206	121	53	193	60	15	10	4	2	3	23	19	51	14	37	831	807	544	525	1638	1069	569	489	368	212	160	219	178	236	276	30·160	37·9	31·7	+ 2·0	N.E.	790	0·16
MARCH 6	207	54	196	127	49	231	61	20	11	10	3	2	35	23	40	10	31	873	826	566	582	1699	1128	571	466	399	250	170	230	175	193	360	30·061	36·4	28·4	+ 4·4	N. & E.	650	0·02
,, 13	197	63	237	129	59	251	61	14	5	6	1	2	26	21	58	14	83	841	806	636	596	1647	1232	415	521	437	274	222	222	237	255	296	30·300	40·0	33·5	+ 1·5	N.E.	775	0·00
,, 20	198	44	224	145	51	269	74	22	5	14	1	4	30	31	62	1	31	897	813	652	556	1710	1208	502	523	399	286	195	237	208	232	338	30·172	40·5	34·1	+ 1·7	N.E.	630	0·00
,, 27	204	47	224	118	53	243	80	19	15	8	6	3	28	30	55	15	62	814	793	615	604	1607	1219	388	504	441	267	191	221	204	273	330	29·814	45·5	35·2	+ 2·6	S.E. & N.E.	565	0·00
APRIL 3	213	67	219	129	65	249	56	15	11	11	4	3	32	29	61	42	112	838	892	668	656	1730	1324	406	561	471	291	203	281	247	268	325	29·686	43·5	38·3	+ 0·4	E.N.E.	800	0·12
,, 10	221	45	207	97	33	235	48	17	7	3	3	6	80	24	52	3	16	737	723	537	514	1460	1051	409	463	354	229	175	205	206	200	265	30·073	44·0	38·1	+ 1·2	E. & N.E.	545	0·00
,, 17	232	48	198	108	43	214	55	17	12	11	2	4	41	17	46	3	34	805	839	551	541	1644	1092	552	478	393	222	203	198	205	220	266	30·012	47·0	39·7	+ 0·5	E. & N.E.	595	0·00
,, 24	204	44	199	128	33	172	54	17	8	16	4	4	28	21	56	6	20	789	819	559	462	1608	1021	587	469	326	226	148	197	178	198	300	29·821	46·0	36·3	— 1·7	N.E. & E.	870	0·00
MAY 1	232	44	197	105	37	187	55	7	9	9	5	1	34	25	42	9	24	806	730	524	502	1536	1026	510	481	349	196	153	244	161	181	287	29·762	48·6	39·3	— 0·9	.....	640	0·52
,, 8	193	48	190	108	37	166	60	18	17	9	2	3	26	27	32	9	14	810	850	498	474	1660	972	688	451	339	176	118	205	184	197	268	29·995	48·1	36·5	— 3·5	N.E. & S.W.	495	0·00
,, 15	234	46	200	121	45	169	74	8	11	6	2	1	33	30	46	3	34	712	689	529	541	1401	1070	331	503	365	198	193	178	209	212	278	29 728	52·7	44·6	— 0·2	S.W.	1220	0·30
,, 22	228	39	189	120	33	131	59	8	7	...	1	2	29	22	44	5	21	711	749	449	494	1460	943	517	451	314	174	154	197	174	171	247	29·740	55·6	49·4	+ 1·1	.....	320	0·84
,, 29	205	44	177	104	40	115	50	11	9	10	...	3	30	20	41	5	15	776	640	477	406	1416	883	533	428	270	185	138	172	154	191	228	29·741	50·8	46·8	— 5·8	N.	480	0·87
JUNE 5	246	45	195	106	41	126	76	9	9	6	2	4	22	27	38	3	40	814	742	525	475	1556	1000	556	481	335	184	176	201	162	205	256	29·687	52·5	42·6	— 5·7	S.W. & S.	575	0·20
,, 12	209	44	181	110	35	110	56	9	7	9	3	3	23	23	41	6	24	692	622	448	448	1314	898	416	433	296	167	146	181	169	167	235	29·475	54·9	49·6	— 4·2	S.E. & S.W.	380	2·63
,, 19	196	41	189	110	37	104	65	20	12	6	...	5	23	15	43	7	25	774	812	455	448	1586	903	683	396	333	170	133	189	148	187	246	29·379	55·2	47·3	— 4·6	S.W. & S.S.E.	865	1·09
,, 26	215	48	204	115	41	110	55	15	13	9	2	2	30	25	31	6	64	818	736	490	500	1554	990	564	467	341	181	147	205	190	210	238	29·655	58·6	49·6	— 2·0	S. & S.W.	725	0·54
JULY 3	187	51	183	131	44	91	59	12	12	17	6	5	17	10	44	20	95	789	724	516	471	1513	987	526	416	383	187	152	183	158	241	253	29·809	59·7	50·0	— 1·3	S.W.	890	0·09
,, 10	215	49	221	131	49	122	74	11	11	4	2	5	24	27	61	2	42	676	638	555	525	1314	1080	234	505	349	203	169	220	182	220	289	29·845	70·9	59·2	+ 9·2	S.E.	220	0·00
,, 17	213	39	192	126	31	98	47	9	8	13	2	5	34	26	38	3	24	781	657	481	440	1438	921	517	460	286	160	146	175	156	209	235	29·852	67·3	60·2	+ 5·1	N.E.	350	0·27
,, 24	264	40	182	110	28	64	69	7	6	10	1	3	33	27	34	2	26	795	773	458	454	1568	912	656	483	271	156	121	198	137	216	240	29·873	65·0	55·5	+ 3·5	Variable.	675	0·01
,, 31	308	38	211	112	33	68	71	14	7	10	...	7	48	35	35	1	40	761	669	532	508	1430	1040	390	586	289	165	175	184	170	207	304	29·801	65·7	56·9	+ 4·4	N.E. & N.	385	2·04
AUGUST 7	379	36	205	116	34	70	76	10	13	7	1	3	42	43	41	6	35	751	713	597	527	1464	1124	340	656	299	165	162	229	231	234	268	29·379	63·3	51·4	+ 1·8	S.	815	1·01
,, 14	385	50	191	111	36	76	79	5	7	8	1	2	24	38	34	6	31	771	694	536	555	1465	1091	374	611	303	171	166	197	181	260	287	29·380	59·7	50·5	— 1·7	S.W.	980	1·48
,, 21	373	41	212	92	43	75	67	11	8	6	...	1	41	31	38	3	36	850	789	581	503	1639	1084	555	606	316	162	177	225	189	238	255	29·770	61·8	54·0	+ 0·9	Variable.	400	1·91
,, 28	310	43	155	119	30	77	75	12	5	9	...	1	42	34	27	1	32	753	746	508	472	1499	980	519	558	277	144	148	190	165	198	279	29·953	64·2	56·0	+ 3·9	N.N.E&S.W	365	0·10
SEPT. 4	282	43	169	112	31	73	63	5	3	9	2	5	32	38	34	5	56	785	739	489	477	1524	966	558	527	284	153	163	203	162	183	255	29 979	62·4	51·5	+ 2·8	S.W. & S.E.	490	2·00
,, 11	258	44	180	90	40	102	53	7	8	7	4	1	26	32	30	7	44	749	688	491	445	1437	936	501	485	296	154	130	206	188	195	217	29·789	60·7	54·8	+ 1·8	N.	520	1·40
,, 18	278	39	162	74	22	103	59	6	10	8	3	5	21	33	56	4	21	718	720	470	443	1438	913	525	465	274	166	133	188	148	223	221	29·612	54·3	41·6	— 3·5	.....	295	0·85
,, 25	271	42	200	99	43	129	54	15	10	14	4	5	31	34	38	11	74	847	793	589	488	1640	1077	563	547	350	178	155	191	213	224	294	29·873	54 3	47·1	— 1·1	S.W.	335	0·57
OCT. 2	262	51	194	133	51	151	70	9	11	5	2	6	33	41	42	46	137	807	797	697	554	1604	1251	353	574	443	224	164	214	213	282	378	29·403	52·2	45·3	— 1·5	N.E. & S.W.	357	1·31
,, 9	216	49	168	127	32	144	71	13	7	6	2	3	26	35	48	4	31	697	653	496	488	1350	984	366	474	308	198	145	153	182	206	268	29·534	46·3	39·0	— 6·0	S.W. & N.W.	205	1·09
,, 16	254	42	182	105	44	195	59	17	7	7	2	7	28	29	52	12	34	782	825	542	551	1607	1093	514	536	355	185	170	213	164	233	313	30·108	48·2	42·4	— 2·0	N.E.	475	0·03
,, 23	251	45	162	110	47	209	56	19	5	7	5	8	28	24	46	14	33	796	771	530	542	1567	1072	495	535	348	189	155	232	190	234	261	29·945	49·9	43·9	+ 2·0	N.E. & S.W.	420	0·42
,, 30	230	49	168	118	33	262	58	14	9	12	3	7	32	21	45	2	24	686	714	562	528	1400	1090	310	548	317	222	167	216	183	241	283	29·278	45·6	40·4	— 1·2	S.W. & N.W.	880	2·01
NOV. 6	224	55	184	107	37	234	54	12	13	6	3	1	32	29	45	2	37	830	814	578	523	1644	1101	543	538	340	198	157	219	181	238	306	29·534	54·2	47·9	+ 7·7	S.W.	1395	0·84
,, 13	228	27	167	98	28	192	67	15	12	11	5	3	32	21	42	9	26	691	759	516	506	1450	1022	428	499	321	167	145	199	170	234	274	29·759	51·2	45·8	+ 5·8	S.W. & N.E.	1270	1·30
,, 20	184	32	181	104	42	167	55	11	10	9	2	5	29	24	43	3	20	770	720	487	435	1490	922	568	432	317	172	133	182	134	209	264	29·159	49·3	44·3	+ 5·2	S.W.	1090	1·77
,, 27	207	45	161	96	30	172	79	13	7	12	...	2	24	20	32	4	40	855	816	472	475	1671	947	724	438	322	187	149	178	156	191	273	29·369	45·7	40·7	+ 2·3	N. & S.W.	965	1·46
DEC. 4	210	51	170	134	46	171	68	12	12	11	3	5	31	20	38	4	52	851	788	537	505	1639	1042	597	462	359	218	176	201	165	226	274	29·710	42·4	36·5	— 0·1	S.W.	1165	0·33
,, 11	212	70	154	131	43	171	55	8	5	6	1	6	35	26	45	7	30	810	769	522	490	1579	1012	567	455	340	213	160	195	184	231	242	29·520	49·3	44·1	+ 7·9	S.W.	1200	0·61
,, 18	211	47	183	118	43	161	46	11	9	9	3	4	30	15	44	9	79	878	784	555	486	1662	1041	621	480	344	199	146	189	181	220	305	29·318	48·5	42·1	+ 7·5	S. & S.W.	1310	0·59
,, 25	162	35	145	111	41	130	69	14	14	11	3	1	25	18	34	10	33	708	643	445	426	1351	871	480	382	301	172	145	174	147	196	209	29·746	46·8	40·6	+ 7·8	.....	860	0·05
Total for 1852...	12104	2361	9815	6001	2156	8435	3235	657	463	446	130	197	1572	1336	2315	431	2139	41038	39446	27852	26359	80484	54213	26271	25638	17784	10496	8295	10670	9324	11449	14475							
Total for 1851...	12652	2323	9826	6098	2173	9312	3196	603	444	403	89	160	1545	1314	2344	516	2001	39882	37984	28096	27249	77871	55354	22517	25712	17999	11362	8326	10860	9474	11810	14884							

NOTE TO THE PRECEDING TABLE.

The figures heading the *Sporadic Diseases*, signify as follow: —1. Dropsy, Cancer, and other Diseases of uncertain or variable seat——2. Tubercular Diseases—— 3. Diseases of the Brain, Spinal Marrow, Nerves, and Senses——4. Diseases of the Heart and Blood-vessels——5. Diseases of the Lungs, and of the other Organs of Respiration——6. Diseases of the Stomach, Liver, and other Organs of Digestion——7. Diseases of the Kidneys, etc.—— 8. Childbirth, Diseases of the Uterus, etc.——9. Rheumatism, Diseases of the Bones, Joints, etc.——10. Diseases of the Skin, Cellular Tissue, etc. —— 11. Malformations —— 12. Premature Birth and Debility——13. Atrophy——14. Age——15. Sudden ——16. Violence, Privation, Cold, and Intemperance.

MEDICAL NEWS.

Royal College of Surgeons.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at the meeting of the Court of Examiners on the 14th inst.:—

Burrows, Samuel James, London.
Coulthard, William, Borneo.
M'Donald, Charles Francis, Old Kent-road.
Paine, John Gosling, Brighton.
Tucker, Sylvanus, Australia.
Vaudin, Charles, St. Helier's, Jersey.
Wood, Alfred Stephen, London.
Welch, Robert, Taunton.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, January 13, 1853:—

Buswell, Richard, Northampton.
Thomas, Frederic John, Devonshire-terrace, Kingsland.

APPOINTMENTS.

Midwifery.—Isaac B. Brown, Esq., Surgeon-Accoucheur of St. Mary's Hospital, Paddington, has been appointed Corresponding Fellow of the Hufelandian Society for Scientific Midwifery of Berlin.

Military.—1st Regiment of Foot: Assistant-Surgeon Thomas Knox Birnie, from the Staff, to be Assistant-Surgeon. 31st Foot: Assistant-Surgeon John Meane, from the 20th Foot, to be Assistant-Surgeon. 74th Foot: Assistant-Surgeon William Lapsley, from the Staff, to be Assistant-Surgeon, vice Robinson, appointed to the Scots Fusilier Guards. 85th Foot: Acting Assistant-Surgeon Alexander Fisher Bartley, to be Assistant-Surgeon. Ordnance Medical Department: Surgeon Dempsy to be Senior Surgeon, vice Richardson, retired on half-pay; Assistant-Surgeon Elliott to be Surgeon, vice Dempsy; Temporary Assistant-Surgeon Wright to be Assistant-Surgeon, vice Elliott.

Militia.—Royal Radnor: Edward Mawthill Tearne to be Surgeon. Exeter and South Devon: John William Harris to be Surgeon.

Naval.—Acting Assistant-Surgeon W. J. Baird, to the Leander, 50, at Portsmouth.

University College Hospital.—Mr. Thomas Raikes has presented the hospital with ten guineas, being part of the sum claimed by and paid to him from the London and Brighton Railway Company in respect to the collision at Red-hill, on the 1st of November last.

The Statistical Society.—The usual monthly meeting of the members took place on Monday evening, at the Society's house, St. James's-square, Lord Overstone, the President, in the chair. An excellent and elaborate paper on the Property and Income Tax was read by Mr. Farr, in which it was justly argued, that incomes ought to be taxed according to their nature, and that it was not an English love of money, but the English love of justice, which had excited so much dissatisfaction with the existing arrangements. Mr. Babbage again stated his well-known views, and urged the necessity for an agreement in certain principles before the question could be argued with any prospect of arriving at a satisfactory conclusion. Dr. Guy, Mr. Jellicoe, Mr. Grove, Mr. Venables, Dr. Trueman, Mr. Neison, Mr. Mackenzie, and the Chairman, also took part in the discussion, which was finally adjourned to the next monthly meeting. The paper was of much interest to the Medical Profession, the members of which are unjustly taxed by the present arrangements.

Medical Benevolent College.—We have great pleasure in announcing that the Lord Bishop of Oxford has kindly fixed the 8th of May next for advocating the claims of this national undertaking in St. Peter's chapel, Vere-street; the Rev. Edward Scobell, the incumbent, having generously granted the use of his pulpit for that occasion. In addition to the land recently purchased by the Council at Epsom, a piece adjoining has handsomely been presented to the College by James Gadesden, Esq., of Ewell Castle, as also a donation to the funds of 25*l*.

St. Luke's Hospital for Lunatics.—A vacancy in the office of Resident Apothecary to this Institution, caused by the resignation of Mr. J. J. Arlidge, was declared on the 20th inst.

Dispensary and Infirmary Appointments Vacant.—Resident medical officers are required for the Coventry and Warwickshire Hospital, salary, 70*l*. per annum, with lodging, coals, and candles; at the North Staffordshire Infirmary, salary 70*l*., with board, lodging, and washing; and at the Holloway and North Islington Dispensary, salary, 80*l*., with lodging, and 40*l*. a year for coals, servant, etc. A medical man is also wanted by the guardians of the Sheppy Union, to reside in the village of Eastchurch. The salary fixed is 100*l*. a year, with the extras provided by the Poor-law Board.

Lord Eldon.—A commission *de lunatico inquirendo*, touching the state of mind of the Earl of Eldon, was held on the 15th inst., at Shirley-park, near Croydon, the residence of His Lordship, by Mr. Commissioner Winslow and a jury of seventeen gentlemen. From the evidence, it appeared, that, up to June, 1851, Lord Eldon had performed all the duties of his station in the most satisfactory manner; but in that year, from close study, as it is supposed, his health began to fail, and it became necessary to call in Dr. Sutherland. The characteristic description of the unsoundness of mind was partial dementia, with occasional attacks of mania. The death of Lady Eldon, in November last, rendered the present inquiry imperative, as, up to the time of her death, she had managed the property of her husband, and had also controlled him with great care and affection. The evidence of Dr. Sutherland, Dr. Forbes Winslow, and Dr. Tyler Smith, conclusively proved that His Lordship was of unsound mind, and the Jury returned a verdict accordingly.

In Re Cumming.—The Lord Chancellor has declined making an order for the *supersedeas* of the commission of lunacy, on the ground that His Lordship was not satisfied of Mrs. Cumming's sanity.

Poisoning by Aconite.—An inquest was held at Bristol, on the 15th inst., to inquire into the death of Emma Forty, an inmate of the Roman Catholic Convent of the Good Shepherd, situated at Arnos-vale, near that city. Deceased, it appears, had, on Monday, January 10th, administered to her by mistake, by the sister-attendant, Miss Sophia Ryder, a deadly poison, instead of the medicine prescribed for her, which resulted in her death about five hours afterwards. It appeared from the evidence, that the unfortunate deceased was suffering from tape-worm, for the cure of which she was ordered, by the medical adviser of the convent, a decoction of pomegranate bark and quinine. According to the usual custom, Miss Ryder prepared the medicine; but, on going to administer it, took the wrong bottle from the dispensary, and gave, instead of the decoction, a drachm of Fleming's tincture of aconite. The coroner, after addressing the Lady Superioress as to the imminent danger of allowing unskilled persons to dispense drugs, summed up, when the jury returned the following verdict:—"That the death of Emma Forty was occasioned by the administration of aconite, a poisonous drug given to her by Miss Ryder in mistake for medicines prescribed for her. The jury wish also to express their opinion, that much blame is attributable to the authorities of the convent for allowing a practice which prevails of permitting persons to dispense medicines who, from the want of the necessary education, are ignorant of their nature. The jury further express a hope, that in future such practices will be discontinued."

Ordnance and Line Medical Departments.—There is a rumour, to which credit seems very generally attached, that the Medical Departments of the Line and Ordnance are very shortly to be amalgamated. Such a change will, doubtlessly, be one not only of convenience but of economy to the Service. It has occurred to us that a very good opportunity would be afforded at this time to remove an expense which medical officers of the Line, rather unjustly, as it would seem by comparison with others, have long been subjected to. In accordance with present regulations, assistant-surgeons of the Line have to provide, at their own expense, a pocket case of instruments, and regimental and second-class surgeons, in addition, a capital case of instruments, for the public use. The latter case of instruments, according to regulation, costs

about 30*l*. But the singular part is, that on promotion to the first class, the surgeon is no longer required to have this case of instruments, but is provided with one at the public expense. Now, in the Ordnance department, the assistant-surgeons and surgeons have always been provided with the required instruments, at the public cost, just the same as holds in the Navy. Surely this appears only just, and equally ought to apply to the medical officers of all branches of the Service, all being made alike responsible for the proper care and keeping of the public property alluded to.—*United Service Gazette.*

DEATHS *in the Metropolis for the week ending Saturday, January* 15, 1853.

Causes of Death.	Jan. 15. 0	15	60	All Ages.	Sum of Ten Weeks.
All Causes	477	314	188	1001	11379
Specified Causes	474	314	188	976	11295
1. Zymotic (or Epidemic, Endemic, and Contagious) Diseases ...	173	31	12	216	2314
Sporadic Diseases:					
2. Dropsy, Cancer, and other Diseases of uncertain or variable seat ...	6	27	16	49	504
3. Tubercular Diseases	69	100	8	177	1863
4. Diseases of the Brain, Spinal Marrow, Nerves, and Senses ...	49	41	29	119	1306
5. Diseases of the Heart and Blood-vessels	3	18	16	37	428
6. Diseases of the Lungs and of the other Organs of Respiration ...	74	38	41	153	2440
7. Diseases of the Stomach, Liver, and other Organs of Digestion...	18	32	19	69	634
8. Diseases of the Kidneys, etc. ...	1	5	...	6	114
9. Childbirth, Diseases of the Uterus	1	8	1	10	107
10. Rheumatism, Diseases of the Bones, Joints, etc.	4	4	1	9	71
11. Diseases of the Skin, Cellular Tissue, etc.	2	1	1	4	15
12. Malformations	3	...	...	3	25
13. Premature Birth and Debility ...	38	1	...	39	260
14. Atrophy	24	...	1	25	168
15. Age	...	...	41	41	722
16. Sudden	1	1	2	4	83
17. Violence, Privation, Cold, and Intemperance	8	7	...	15	241
Causes not Specified	3	...	...	25	84

BOOKS RECEIVED.

Thomas's Modern Practice of Physic. By Dr. Frampton.

On Asylums for the Insane. By Thomas Dickson,

The London and Provincial Medical Directory for 1853.

TO CORRESPONDENTS.

[To the Editor of the Medical Times and Gazette.]

Sir,—In the report of the proceedings of the Epidemiological Society in your last Journal, I am represented to have expressed myself as follows:—"He thought that the small-pox poison might slumber long in the system before awaking to activity." Now, I have to request that you will do me the justice to inform your readers, that I did not say anything that would bear such a construction.

I said, amongst other things, that small-pox matter may retain its powers, when in the dry state, for a considerable period, and still communicate the disease; and possibly this is the expression that your reporter has misunderstood. I am, &c.

18, Sackville-street. John Snow.

Chemicus informs us that the Censors of the Royal College of Physicians have not discontinued their practice of paying periodical visits to chemists' shops for the purpose of ascertaining the quality of their drugs, for that he himself has been thus visited on many occasions. The fact is, that this power of visitation on the part of the College is confined, by their charter, to the narrow limits of the City, but does not extend to the metropolis generally. The other points in our Correspondent's letter are under consideration.

Our next article upon "Drugs, their Impurities and Adulterations," will be devoted to the preparations of Mercury.

Mr. Brodhurst's paper on the "Use of Mercury in Hydrophobia," shall appear shortly.

A General Practitioner.—An account for medical attendance cannot be recovered in the County Court unless the party suing is a Licentiate of the Apothecaries' Company.

Will "M." favour us with his name in confidence? When he does so we will publish his letter.

F. Rawle, Surgeon.—We think you are in error. Mr. Fergusson never claimed to be *the originator* of the operations referred to.

John L. Milton.—Your paper will be inserted as soon as our press of matter will allow.

W. B. Meredith.—We have seen the article to which you allude; but we never condescend to notice such trash. By doing so we should be merely drawing attention to a journal which is almost unknown to English practitioners.

W. H. J.—We cannot insert your communication, as all the arguments you adduce are not founded on facts. The population of London is about 2,000,000. According to the report of the Board of Health, published in 1850, the gross daily quantity of water pumped into the Metropolis amounts to forty-four millions of gallons. This enormous quantity is chiefly derived from the river Thames and its tributary the Lea. Such a supply would cover the area of a square mile to a depth of ninety feet.

A Licentiate of the Royal College of Physicians.—We trust that for the future a physician-accoucheur will always be found on the censor's board. We have some reason for believing that such will be the case.

F. W. B.—Sir James Clark is the President, and Mr. Newnham, of Farnham, the Treasurer, of the Medical Benevolent Fund. For any information you require, apply to the latter gentleman.

A Student of St Thomas's must forward his name, not for publication, but as a guarantee of his good faith.

T. T.—Inquire of a bookseller.

M. R. I.—As the profoundest philosophers have now become popular teachers, we think your objection to the gentleman you allude to lecturing at a scientific institution is ill founded.

A Correspondent informs us that the Academy of Sciences in Paris has filled up the vacancy created in its Botanical Section by the death of M. Richard, by appointing M. C. Montagne.

Dr. Parker.—The oil of male fern has often brought away the head of the tape-worm after the kousso has failed to do so.

A Subscriber.—Your request shall be attended to. There is no doubt that the common lodging-houses for the poor of the metropolis are the nurseries of epidemics, especially of fever. The improvement of these wretched abodes is one of the most important of the sanitary measures yet carried out, and has already been productive of much good.

Bibliopolos.—Refer to the classed Catalogue of the College of Surgeons.

H. S.—We cannot insert the marriages of medical men in our Journal.

Dr. Henry Johnson is thanked for his communication, which we will at once forward to Mr. Stephens.

The request of *Justitia* shall be attended to.

A Discontented Practitioner had better emigrate at once to California, where the smallest doctor's or surgeon's fee is twenty-seven dollars.

Obstetricus.—The inscription sent to us is not as remarkable as the following, which is to be found in Lenham Church, north of the chancel, on the tomb of Robert Thomson, Esq., and is to the effect, "that he was grandchild to Mary Honeywood, of Charing, who had at her decease 367 children lawfully descended from her—16 of her own body, 114 grandchildren, 228 in the third generation, and *nine in the fourth*."

CORRESPONDENCE IN REFERENCE TO DR. BOON HAYES'S LECTURES.

Dr. Lyons, of Dublin, has been written to, explaining the mistake referred to in the last Journal, as to that gentleman's name.

A Young Microscopist.—*All* the questions will be answered fully in the Third Lecture, under which division of the subject they properly come. The "Young Microscopist" will see, by reference to the Syllabus of the Course, that there are special sections upon the very points he refers to. The question in reference to the pocket lens is answered in the last section of the Second Lecture.

W. E. S., Scarborough.—Your microscope is doubtless a good one, and sufficient for all *medical* purposes. The numerals IV. and VII., II. and III., will be specially referred to under the article Micrometry, in the Third Lecture.

T. L. H., Birmingham.—F. S., Stafford.—W. R., London.—Microcosm, and several others, anticipate the subject of the Course.

Dr. Boon Hayes will esteem it a great favour if the hint conveyed in the last *note* to the First Lecture be borne in mind by his correspondents; namely, the importance of confining all questions to the subject of Lectures which have appeared, and not to anticipate, unless it be distinctly to save time, in which case immediate attention will be paid to communications.

COMMUNICATIONS have been received from—

Dr. Snow, Sackville-street; Dr. Fuller, St. George's Hospital; Thomas Windsor, Esq., Manchester; W. Parker, Esq., Birkenhead, Cheshire; Dr. C. J. B. Aldis, Chester-terrace, Chester-square; Dr. Bauer; A Line Assistant-Surgeon; Dr. Bellamy, Guernsey; An Old Surgeon; John B. Stedman, M.R.C.S.; Henry Lee, Esq., King's College; A Young Microscopist; E. C. Didd, Esq., King's Lynn; F. Rawle, Esq.; John L. Milton, Esq.; E. W.; John Avery, Esq.; E. Wright, Esq., Kennington-row; Students; M; Dr. Snow Beck; Dr. Henry Johnson, Shrewsbury; Justitia; G. Harvey, Esq., Castle Hedingham; J. A. Hingeston, Esq., Brighton.

ORIGINAL LECTURES.

CLINICAL LECTURE

ON

THE MODE OF FORMATION OF SECONDARY ABSCESSES,

AND SOME OTHER CONSEQUENCES OF

A VITIATED CONDITION OF THE BLOOD.

DELIVERED AT

King's College Hospital.

By HENRY LEE, F.R.C.S

Gentlemen,—In a former lecture, I brought under your notice some of the most important physical effects produced in the blood by an admixture of dissolved and decomposed fibrine and of pus. The changes which could be observed to take place within the vessels, and which I principally dwelt upon, were:—1st, the coagulation of the blood; 2ndly, its separation into its different elements; and, 3rdly, its decomposition.

I mentioned to you, that, whenever these changes took place in the blood-vessels of the living body, they were the sources of other actions in the surrounding parts, and that these subsequent actions depended, in a great measure, upon the condition of the altered blood. The veins, in which these physical changes are generally observed, I reminded you, were in themselves as little susceptible of inflammation as any structures in the body, but were liable to become the seat of the most severe irritation, whenever any vitiated fluids were confined within their cavities; and thus that, however the veins might be injured, or whatever irritating fluids might be conveyed along their channels, little or no inflammation of their coats would be observed, so long as the circulation in them was continued. Thus, solutions of tartar emetic and nux vomica will readily pass along the channels of the veins without leaving any trace of their passage; but that, as soon as a vitiated fluid lodged, and was confined to any part, (in consequence of one of the processes above mentioned,) then immediately the surrounding structures became sensible of the presence of the irritating matter, and severe local and constitutional irritation was apt to result. The object of this irritation in the part, and in the system as sympathising with the part, is evidently to get rid of the irritating and morbid material. It is an effort on the part of the constitution to expel any matter which is prejudicial to it.

The changes in the blood which I have mentioned may take place in that fluid itself, quite independent of any influence from surrounding parts; and they are interesting, not only on their own account, as directly connected with the pathology of a most important class of diseases, but also as affording an illustration of the way in which other morbid processes may be carried on in the living body, the effects of which we have not the same means of tracing by physical changes capable of being appreciated by our unassisted senses.

I conceive, therefore, that our time will not be misspent to-day in considering some of the principal consequences of the morbid condition of the blood to which I have alluded, especially as it is more than probable that, when the pathology of these diseases is more fully developed, it may furnish us with a ready solution of many of the congestions and so-called inflammations of internal parts, which at present appear to us to spring up without any very evident cause; and I need scarcely remind you, that the scientific treatment of such diseases must always be based upon a clear and distinct notion of their real nature, quite independent of the names or words by which they were originally known. Although we think we govern our words, says Bawn, yet certain it is, that words do shoot back upon the understanding of the wisest, and mightily entangle and pervert the judgment.

[No. 696.—New Series, No. 135.]

Words are generally imposed according to vulgar conceptions, and divide things by lines or distinctions most apparent to the understanding of the multitude; and, when a more acute understanding or observation would place these lines according to nature, words cry out and forbid; and, as these are things which, through want of being observed, remain without names, so there are names coined upon fantastical conceits, and having no things corresponding to them.

In no department of science have these remarks been more fully and more frequently illustrated than in medicine; in no medical subject have the fantastical conceits been more heroically acted upon than in the class of so-called inflammations; and in none has the preconceived notion of what an inflammation must necessarily be, more clouded and obscured the judgments even of our ablest writers, than with regard to the class of diseases which have hitherto gone by the name of phlebitis. The treatment of these complaints has apparently, until very recently, been dictated by the name which was at first accidentally applied to them. The affections were said to be inflammatory; antiphlogistic remedies were of course to be employed. The symptoms usually did not yield. This was doubtless on account of the violence of the inflammation. More active measures were had recourse to. The lancet was freely employed in England; the application of large numbers of leeches in France. To these were added the free use of calomel and opium, and other remedies calculated, in the language of the writers of the day, to combat and to "beat back" the inflammation; and in this object those who adopted the practice doubtless often succeeded, at least as far as diminishing any external appearance of irritation was concerned. The accounts which they have left us usually terminate with a description of the benefit derived from the means used, and the disappearance of some of the symptoms of local irritation, but that, unfortunately, at last the powers of the constitution were found to give way!! The victory over the disease was obtained only at the expense of the power of life; the inflammation was arrested, but, unfortunately, the patient died.

In considering the pathology of this class of diseases, it will be our duty to inquire into the real nature of the so-called inflammation; and, if we can succeed in getting a dissinct view of this, we shall have little difficulty in determining the proper mode of treatment, and especially we shall be led to consider whether, when the local irritation is made to disappear by violent means, the disease, in its essential characters, is in reality relieved; or whether, on the other hand, such relief is apparent only,—whether the disease is in any measure subdued, or whether it has been made only to change the form in which it is manifested, and its situation.

These preliminary observations I have thought it necessary to make, in order that, should I, for want of better terms, occasionally use the words "phlebitis," "secondary inflammation," "secondary abscess," etc., you may not be led away by the popular signification of these terms, but may endeavour to look at the diseases under consideration as they actually present themselves, by their symptoms, in the living body, and by their physical appearances in the dead.

There have been in the hospital during the last few weeks some rather unusual forms of these cases of suppuration in one part of the body occurring as a consequence of disease or injury elsewhere. The subject of the mode of formation of these abscesses, and some other results of so-called secondary inflammation, will not therefore inappropriately follow the subject of one of my previous lectures, namely, the sources of danger involved in the operation upon veins.

The cases which have recently presented themselves I will briefly recal to your recollection. The first case was that of a woman who was in Victoria Ward, and who had suffered for a long time from necrosis of some portions of bone entering into the formation of the left elbow-joint, and I may at once state, that in the great majority of these most interesting cases (at least as they occur in surgical practice) the malady from which the patient ultimately sinks will be found to have its origin either in one or more of the larger veins, or in some portion of diseased or of injured bone. The piece of bone involved may in many instances appear altogether insignificant; but, nevertheless, the lesion may be sufficient to spread its effects over the whole system. In the case of the woman to whom I have alluded, the diseased bone might be felt by a probe in the immediate neighbourhood of the elbow-joint for many months. She was always most unwill-

ing to have it interfered with, and, although the disease was evidently making progress, she would always say that she was better. At length she had a severe attack of what appeared to be rheumatic inflammation of the knee-joint of the opposite side. Her constitution at the same time became much impaired, and a collection of matter made its appearance behind the knee-joint, below the bends of the gastrocnemius muscles, which, as you know, arise from the condyles of the femur above the joint.

When this collection of matter at first formed, it appeared to be quite unconnected with the articulation, but subsequently suppuration occurred in the knee-joint itself, and the abscess in its interior ultimately communicated with that which had first formed. This, I may remark in passing, is what very frequently happens when large abscesses form in the neighbourhood of joints. Even if the joint be previously quite healthy, yet, if an abscess long remain in its neighbourhood, it will induce, first, ulceration of the cartilages, and, secondly, suppuration in the articulation. The two abscesses will then, probably, not be long before they communicate with each other. In this poor woman's case, the sudden and great increase in the quantity of the discharge from the abscess behind the knee, taken with other symptoms, appeared to indicate the period when this communication took place.

After lying for many days, gradually exhausted by the discharge from the knee and from the elbow, suddenly, without any external cause, the chest in this patient became affected. There was great oppression; the breathing became quick and short; the countenance presented a slightly livid appearance. Then followed constant attempts at expectoration, accompanied by most exhausting perspirations; and she lay for several days in a half unconscious condition, owing probably to the circulation through the brain of blood which had been most imperfectly arterialised in the lungs. In this instance, unfortunately, we could not obtain an examination of the chest; but the course of the symptoms scarcely admitted a doubt that some form of disease consequent upon the abscesses in the limbs had affected the lungs.

A second case, interesting as presenting the disease in one of its mildest forms, occurred in one of the porters of the hospital.

This man was admitted for a very bad whitlow of the middle finger. He was very much out of health, and all the tonics we could give him appeared to produce no effect. He was also troubled with an eruption on different parts of the body; this appeared particularly on the skin of the lower part of the abdomen and pubes. It presented at first no very distinctive characters, but recurred again and again, and kept the patient in a continued state of irritation. Various medicines and local applications were tried, but none of these appeared to influence the course of the disease. The character of the eruption, however, became changed; a number of pustules formed in the skin, and subsequently the same thing occurred in the cellular tissue beneath the skin. These continued to form in succession, and, like the eruption which preceded them, appeared to follow their own course, and to accomplish their own object, quite independent of any treatment. This patient, as if conscious that the finger was the source of all his grievances, requested me to remove it. This I refused to do, although no improvement had taken place with regard to its appearance since his admission into the hospital.

The finger was very much enlarged, red, and painful. It was rendered stiff by the swelling, and presented an extensive phagedænic ulceration.

At length the case, which was at first sufficiently obscure, was cleared up by the appearance of a piece of dead bone. This Mr. Lawson removed, and almost immediately the parts assumed a better appearance, and healed in a few days, leaving him a useful finger. The general symptoms, however, remained, and small pustules in the skin and cellular membrane still continued to appear for some time; even now, at an interval of some weeks, he had not regained his strength, showing that, in this affection, unlike most others, the effects do not always cease when the original cause is removed.

Another very interesting case, to which I may allude, is one in which an abscess formed in the thigh after the operation for the obliteration of varicose veins.

But I may have a fourth case to add to my list, in the person of a patient in Albert Ward, who experienced the very uncommon accident of a compound dislocation of the os calcis; *i. e.*, the os calcis was forcibly carried away from the astragalus, which was left in its situation between the two malleoli. For reasons which I mentioned at the time, I thought it right to endeavour to save the limb of this young man; and, as far as the local injury is concerned, nothing can be doing better. He has, however, within the last few days, had several rigors, and a large collection of matter has appeared over the lower part of the sacrum.

Now, it appears that, at the time he met with the accident, he received a blow in this situation; and we may hope that the blow he received was the cause of the suppuration in this part. Still, there is one circumstance in this case which causes me more than usual anxiety. It is, that the collection of matter appeared without any of the usual local signs of inflammation, and without the patient having complained of pain and uneasiness in the part. Had he, after the accident, complained of feeling pain, and had he earlier directed attention to the subject, it would have been much more satisfactory. As it was, he made no complaint till Sunday last, and then only that his back was sore from lying. Upon examination, I was surprised to find a large collection of matter. The skin over this was not particularly red or painful, and the inconvenience appeared to arise more from his weight resting upon it, as it projected backwards, than from any other cause.

Now, these circumstances, taken together with the time after the accident at which the collection of matter appeared, make me look with apprehension upon the case. There is one other point which rather tends to the same conclusion, namely, the quantity of matter which had formed—no less than seventeen ounces, I am informed, were evacuated at once. Still, until we have further evidence that the blood has become infected in this case, we must hope that this large abscess was the result of direct injury at the time of the accident.

I will not now enter upon the nature and treatment of the dislocation itself, although a very interesting inquiry, as this would naturally form a subject for separate consideration. I should not, however, omit to mention, that a small portion of bone, forming one of the articulating surfaces, was separated and removed at the time of the accident.

Having thus briefly reviewed these cases, I will now proceed with the inquiry as to the mode in which abscesses and deposits, consequent upon a disease or injury, form in distant parts of the body. Until within a very recent period, it has been taken for granted that the lining membranes of the blood-vessels were analogous in their morbid actions to closed serous cavities. This doctrine was received without question, and it was supposed that the lining membrane of a vein would inflame, and would secrete lymph and pus as readily as the pleura and peritoneum. Upon this was based the further theory, that when secondary deposits occurred as a consequence of local phlebitis, the lining membrane of the vein first affected had secreted some purulent matter, which had been carried in the course of the circulation, and that the particles of pus, being larger than those of the blood, had been mechanically arrested in those situations where the secondary effects manifested themselves.

Now, this is a very clever and ingenious theory, and has received the sanction of some of the greatest names in Europe. But I would ask you to investigate with me the actual facts which can be demonstrated or disproved upon which this theory has been established; and, first, with regard to the power of the lining membrane of the veins first implicated to secrete lymph and pus, Is the action of this membrane, indeed, analogous to that of serous membranes generally?

Now, it is true that the lining membrane of veins is very similar in its lubricated and shining appearance to the free surface of the serous cavities. It is also true, that in the interior of the veins a white adhesive matter is often found in its characters resembling the lymph which is secreted from inflamed vessels, and it is also equally true that a white fluid, resembling pus in its general characters, is often found in their interior. But are these the products of inflammation of the lining membrane? Does the lining membrane of veins become injected with blood-vessels in a similar way to that of serous cavities, and do its vessels pour out in a similar way lymph and pus?

Now, to these questions all the *post-mortem* dissections which have been hitherto accurately made answer, I believe, in the negative. The similarity between the lining membrane of veins and the serous lining of closed internal cavi-

ties here fails ; the former are not capable, like the latter, of being similarly injected in a state of inflammation, nor are they capable in the same way of secreting lymph and pus. The lining membrane of the veins already in contact with the blood does not require blood-vessels for its nutrition, and consequently is not supplied with them ; and in its processes of repair and so-called inflammation, having the materials for carrying out the requisite processes always at hand, there is no necessity for these to be supplied by secretion from other vessels.

This subject is one of too great magnitude for me to enter upon fully at present; but at the same time it is absolutely necessary that the ground should be cleared before we can form an unprejudiced judgment regarding the morbid processes which take place in veins. I will, therefore, offer one illustration only, which will, however, I think, be sufficient to establish the points which I have touched upon. I have here the drawing of a preparation now in the museum of King's College. In this case some cotton wadding was introduced into the cavity of a vein, and a similar piece into the peritoneal cavity of an animal forty-four hours before death. The means were thus afforded of testing, by direct experiment, whether these parts were really analogous in their morbid actions. The result was such as I confess I had anticipated. The cotton wadding which was introduced into the peritoneal cavity was surrounded by firmly-adherent lymph, whereas the cavity of the vein, from which the blood had been carefully excluded, contained no lymph at all. Its lining membrane presented rather a redder appearance than usual, owing, probably, to the increase in the size and number of the vessels in its cellular coat. Its valves, two sets of which were in contact with the cotton wadding, had not lost their natural transparency, nor was there any change in their colour. We have, then, here a decisive proof that the blood-vessels are not analogous in their morbid actions to the serous membranes of the body, and especially that they do not, like them, readily supply those secretions which are the common products of inflammation.

You will, then, doubtless, be ready to ask me whence are those materials derived which have the appearances of lymph and of pus, and which are so frequently found in the interior of the blood-vessels. They are deposits undergoing various kinds of changes from the blood itself, and will never be found, until these changes are far advanced, to have any intimate connexion with the sides of the vessel in which they are contained. This is a point of some importance in the consideration of these cases; for lymph secreted as the result of inflammation always adheres firmly to every part of the surface with which it is in contact. This is, as I have said, not the case with the fibrine when first deposited in the interior of the blood-vessels.

The fibrine once separated from the circulating masses of the blood, may, as I reminded you in a former lecture, undergo various changes. One of these is its liquefaction. The mass, as I then mentioned, may become softened down. The softening proceeds from the centre towards the circumference. This is illustrated in this preparation, where the central portions have been softened down, and have escaped, leaving the external and firmer parts in contact with the lining membrane of the vein. Large quantities of white, purulent-looking fluid may in this way be formed in the veins; and it will afford a very nice subject for any gentleman who will undertake the investigation, to ascertain the qualities of this fluid, its actions, and its microscopical appearances as compared with pus.

Having, I trust, shown that pus is not so readily secreted in the veins as has been generally imagined, I should have little difficulty in giving other reasons to prove that, even where it is so secreted, there would be little ground for maintaining the theory of the formation of secondary deposits upon the supposition that the pus-globules were mechanically retained in the structure of the organs through which they passed.

Time, however, will not permit me to enter more fully upon this part of my subject, which I the less regret since I think that I demonstrated to you in a former lecture that pus will not, under ordinary circumstances, circulate with healthy blood.

Corresponding to the three principal physical changes in the blood which I then mentioned to you as readily appreciated by the sight and touch, are a number of secondary changes consequent upon them, and occurring in distant parts of the system. But these, I must remind you, cannot always be recognised as distinct diseases in the living body, or even in *post-mortem* examinations upon the dead ; and I must beg of you to remember, that, although I shall attempt to describe them separately, yet that cases will often occur in practice which partake of the characters of two or more of the forms of disease which I purpose to notice. Instances will, however, occasionally present themselves which will afford well-marked specimens of each variety.

The first form to which I will allude, is that which is characterised by the tendency of the blood to coagulate, in consequence of the admixture of some morbid matters.

Now, whenever this tendency is manifested, the blood passes with difficulty through the vessels, and although it may not be arrested at once in its circulation, yet it is rendered often darker and more viscid than natural. Should the coagulation take place at once, the portion of blood affected, together with any extraneous matter it may contain, is fixed and localised in a particular spot. But should this effect not immediately take place, the vitiated blood may continue its circulation. Its passage through the vessels will then be less free, its fluidity will be impaired, and there will be a constant tendency for it to stagnate, producing the appearance of congestion at different parts. This tendency will naturally manifest itself in a greater degree in some parts than in others. The action could scarcely take place where the current of the blood is naturally rapid, or where it is impelled through the vessels with much force, as in the arteries. We should, therefore, naturally expect not to find this effect frequently produced in any of the large vessels of the body. The aggregate diameter of the branches derived from the trunk of any blood-vessels is, as you know, much larger than the trunk itself; and it necessarily follows, that in the circulation of the blood the rapidity of movement in the larger vessels compensates for the slower movement in the large collective area of the smaller branches. For this reason, we seldom find that the blood coagulates in the larger veins, in the heart, or in the arteries during life, although instances may be given of this action in all these situations.

We should naturally look for this effect where the propelling and the retarding forces were nicely balanced, in those situations where the blood was divided in the smallest quantities, and where its motion was most tardy. Now, these are precisely the circumstances under which we generally witness this effect. In the delicate internal structure of organs where the blood is minutely divided, and where its circulation is comparatively slow, a few scattered vessels may sometimes be observed congested and distended; at other times, these may be more in number; but the most frequent appearance is that of a more or less oval mass of dark livid congestion. In the majority of instances, the system of minute blood-vessels to which the vitiated blood would first be carried in the natural course of the circulation, is that in which such appearances are found. The blood, as you well know, passes from every part of the body, continually increasing in the rapidity of its motion till it reaches the heart. During its transit, the force of the circulation prevents any stagnation except in the severest cases. From the heart the blood is conveyed to the lungs; and as its stream is divided and subdivided, its motion becomes slower and slower; and in the most minute branches of the pulmonary vessels it is that the effects I am describing most frequently manifest themselves. Blood vitiated in the way in which I have supposed, does not, however, necessarily stagnate at the first system of minute tubes into which it is conveyed. It may pass several times, in the course of the circulation, before it is arrested in its progress. Thus, in cases of injury of the head, the secondary effects of suppuration in the diploë of the bone may fall upon the liver, in which case the contaminated blood would, of course, have previously passed through the lungs; and, on the other hand, I have known secondary abscesses in the lungs follow the ordinary operation for hæmorrhoidal tumours, where the vitiated fluid must have first passed through the liver. Such instances, I need scarcely remind you, are with much difficulty reconciled with the mechanical theory, so long and so ingeniously maintained, that these secondary deposits have their origin in the lodgment of pus globules in capillary tubes which are not sufficiently large to allow their transit.

Now, the disease under consideration is essentially the same, in whatever part of the vascular system its effects may be manifested,—whether the blood has stagnated in one of the larger vessels of the body, or in the interior of some organ, the subsequent changes are strictly analogous; and the sub-

sequent actions are the same, (although they may differ in intensity and in the time of their development,) whether the morbid matter is directly introduced into one of the larger veins, or whether it is conveyed, by means of the circulation, to some distant part. There is, however, this important point to be considered, viz., that vitiated fluids directly introduced and retained in a vein are likely to be in a much more concentrated form than after they have been mixed with fresh portions of blood in the course of the circulation. Still, the morbid processes by which an abscess is formed in the course of a vein, in the primary and in the secondary form of the disease, are similar. The coagulum, containing some vitiated fluid, which is lodged in the vessels, becomes a source of irritation, and we may judge of the action that takes place in the smaller veins of the body by that which we can trace in the larger.

When any foreign matter, either in a solid or a fluid form, is detained in a vein, the cellular tissue around becomes infiltrated with serum. If the vein is near the surface of the body, the skin becomes swollen, red, and tender. Should the irritation continue, the cellular coat of the vein will become greatly thickened, so that, when it is cut across, the divided extremity will remain open like that of an artery. The lining membrane of the vein will become red, being stained by imbibition of the colouring matter of the blood. Should the irritation continue, the cellular tissue on the outside of the vein will suppurate, and a series of little abscesses will form around the affected vessel. It is important to remark, that the pus is here first produced outside the vessel. But during this time other changes will be going on within. The coagulum of blood may become more or less adherent to the sides of the vein. Its central portions may become deprived of their colouring matter; and, if the disease continues, they will become softened down. The whole of the surrounding parts will then become blended together by effusion of lymph, and, upon a section, they will often present a uniform lardaceous surface where the different structures can no longer be distinguished.

In the interior of the lungs, where this process can be best observed in its secondary forms, a deep purple congestion of one or more of the lobes of the lungs will first take place. The congested patch will become hard from the effusion of lymph. The hardening will extend from the centre towards the circumference. In the interior of the indurated and congested portions, some small collections of white fluid will then present themselves. These are doubtless derived, as in the case of the larger veins, from two sources—from the suppuration in the cellular tissue around the vessels, and from the softened coagula within them. As soon as the fluid begins to appear, the affected portion is softened, and easily broken down. The softening gradually proceeds in the same order as the induration, from the centre to the circumference of each affected part, until each patch is converted into a collection of purulent-looking fluid.

This process, or one analogous to it, may, as I have said, take place in any part of the vascular system. The morbid matter may produce it at the point where it is first introduced into a vein, or it may travel some inches along its canal, and there be arrested; or, finally, it may pass through the central organs of the circulation, and its effects may then be manifested in any part of the system.

Now, it will often happen that a coagulum, when first formed, may be sufficiently firm to retain any morbid matter which may happen to be in its interior; but, after a time, this may become softened down, and the fluid resulting from that liquefaction may escape into adjacent veins. The same thing may happen in certain states of the constitution with regard to a coagulum of simple unmixed blood. The coagulum may become softened down, and subsequently mixed with fresh portions of blood. One of two things may then happen; either the dissolved clot may determine the coagulation of the fresh portions of blood with which it comes in contact, or else it may be carried forward in the general course of the circulation, producing its secondary effects at a distance. If the newly-formed coagulum is sufficiently firm to retain the dissolved matter, an irritation will be set up around the vein, such as I have attempted to describe as resulting from the direct introduction of morbid matter. This irritation will probably terminate in suppuration around the vein; the contents of the vein will then become softened down more or less perfectly, and will be discharged with the pus of the surrounding abscess.

Three or four cases of this kind have presented themselves in the hospital during the last few months,—cases where abscesses had formed in the course of a varicose vein, in the process of its obliteration. In these instances no constitutional symptoms usually are produced beyond the slight degree of fever which accompanies the formation of a common abscess. But there is one very interesting case in the London Ward, where some unusually severe symptoms presented themselves. He is a man of a very phlegmatic disposition, on whom I operated for the obliteration of varicose veins. The coagulum in the upper part of the saphena vein in this case remained quite firm; but the lower coagulum near the knee softened down, and gave rise to a good deal of constitutional disturbance. Owing, however, to the complete obliteration of the trunk of the vein in this case, none of the fluid derived from the dissolved clot could pass directly into the circulation in its usual course. There was, therefore, no extension of inflammation in the course of the vessel; but considerable redness and swelling extended to the back and inside of the thigh, and one or two fresh abscesses formed in these situations. These symptoms indicated, I have no doubt, that some of the dissolved matter, which could not find its way along the obliterated trunk of the vein, gained admission to some collateral vessels; but, being detained in the smaller anastomosing branches, probably by a fresh coagulation of their contents, it there gave rise to the symptoms observed.

If the principles of the pathology of this disease, as I have endeavoured to illustrate them, be correct, you will, as I have already said, have little difficulty in forming a judgment of what should be in general the mode of treatment. The security of the patient in the early stages of the disease, before any internal organ is affected, depends upon the firmness of the coagulum formed in the veins originally implicated.

Bleeding, calomel, and antimony have a tendency to diminish the coagulating power of the blood, and are, therefore, I apprehend, not suitable remedies for this disease. If such means be employed, they will loosen the adhesions, and dissolve the connexions formed between the coagulated blood and the sides of the vein. In this way the local appearances of irritation may be subdued. The redness, the swelling, and the pain of the part may be in some cases entirely relieved; but this is only because the vitiated contents of the vein are dissolved and carried to some other part of the system; and while the surgeon is congratulating himself upon the disappearance of the local malady, he may be surprised to find other symptoms of a still more formidable kind developing themselves in some distant part.

The plan of treatment which I have now for some time followed in these cases is to give the patient all those articles of diet or of medicine which are calculated to support his general strength, and especially such as are calculated to maintain unimpaired the coagulating power of the blood.

I do not say but that, in some of the congestions arising from and connected with this disease, local bleeding may not be of advantage, especially as it may tend to unload the distended vessels of their morbid contents. But this treatment is not at all incompatible with the use of every means calculated to support the patient's general powers. In several cases I have now from the earliest stages of the disease given tonics freely, and especially I have used as medicine the different preparations of bark. Both in the primary and secondary form of this disease, wine or other stimulants may often be given with much advantage. The patient to whose case I last alluded, took at one time as much as twelve ounces of brandy a-day, with the most signal and marked benefit. The effects of such means upon the system must be of course carefully watched; but, under due regulation, I have no hesitation in affirming, that in any given number of cases, the tonic mode of treatment, pursued from the commencement, would prove far more efficacious than any of a different character.

I have now gone over one only of the divisions of my subject. There yet remain for consideration two scarcely less important classes of diseases, namely, the secondary effects produced by an abnormal disposition in the blood to separate into its different elements, and the secondary effects of the decomposition of portions of blood induced by the direct admixture of vitiated fluids, in consequence of accidents or operations. These I shall hope to have an opportunity of bringing under your notice upon a future occasion.

ORIGINAL COMMUNICATIONS.

ON THE ARREST OF CONTINUED FEVER BY CINCHONISM.

By ROBERT DUNDAS, M.D.,
Physician to the Liverpool Northern Hospital, etc.

A report, by Dr. Barclay, on the "Treatment of Fever by large doses of Sulphate of Quina," in the *Medical Times and Gazette* of the 8th January, appears to demand, on my part, a brief notice; the more especially as Dr. Barclay has arrived at the conclusion that such treatment "has no advantages."

Dr. Barclay, in his report, does not, indeed, allude to my name; still his observations must, I presume, apply to the doctrine of "Cinchonism in continued fever," to which I have called the attention of the Profession in my late work, "Sketches of Brazil, etc." And here let me at once cordially agree with Dr. Barclay, that "nothing must be admitted as a fact that will not stand the test of repeated observation."

The sum of my experience on the present question was first conveyed to the Profession in the following words:—"Still, in the vast majority of cases of *uncomplicated* typhus, taken at the commencement, you may calculate on complete and rapid success; and, in all, you will almost invariably succeed in breaking, for a time, the diseased chain of actions,—no unimportant advantage in any malady. In the advanced periods of the disease, the results will be much less certain; but, *in all stages*, the large doses of quinine may be safely resorted to, and will commonly calm your patient, cool the skin, allay the headache, and reduce the frequency and improve the character of the pulse. You must, however, bear in mind, as already pointed out, that any vital or important organ being seriously involved, will prove a disturbing cause to the curative powers of the remedy, which are clearly exerted on the nervous system, through which the blood and secretions are favourably modified, and often with marvellous rapidity."—P. 297.

Now, I submit, that Dr. Barclay's "Analytical Report," instead of contravening, goes far to substantiate the above doctrine,—at least in so far as relates to the two only cases of fever in which "cinchonism" appears to have been *early* adopted. As regards the cases with "ulceration of the bowels," who expects, or who ever proposed, to *cure* such cases by cinchonism? I well know that cinchonism will not *arrest* such complications; but I equally well know that, resorted to in time, it will commonly prevent them.

Of three fatal cases in which cinchonism was resorted to, (though I cannot clearly make out if they are included in Dr. Barclay's Analysis,) one was "*apparent* typhus;" another, "tubercular inflammation of the brain," and the third was "complicated with albuminuria," (nephritis?) Surely none of these cases can be adduced as affording any evidence on the present question.

It would seem that, in some of the cases, purgatives had been administered; these, in my experience, prove almost invariably hurtful in fever. Were emetics given? The amount of support and stimulants,—another important consideration,—afforded to the patients under quinine does not appear.

Dr. Barclay admits the effect of cinchonism to be "something strange,"—that is, new to him; but, "in one or two cases which got well very speedily under its employment," he questions "its special effect:" or, "if any," that such effect "was limited to lowering the general circulation;" that, "when pushed to its full extent," it prostrates "the vital powers." On these points my experience is totally at variance with that of Dr. Barclay.

I have myself administered quinine to cinchonism in many hundred cases, and seen it largely given by others; yet in no one instance have I ever observed it cause "prostration of the vital powers," though often vomiting.

That the physiological effect of the remedy is not, as Dr. Barclay avows, "limited to lowering the general circulation," is proved by the fact, that commonly the general symptoms improve, not only *pari passu* with the change in the circulation, but that sometimes one, sometimes another, and occasionally *all*, of the following changes will occur: namely, the tongue will become moist, and the thirst abates, the skin cooler, and the headache and general uneasiness diminished, *before* any decided change in the frequency or character of the pulse can be detected. Also, in the more favourable cases, the physiological effect of the remedy is displayed solely in the rapid and *simultaneous* subsidence of all the urgent symptoms; there will be no tinnitus aurium, no headache, no dizziness, no deafness, and no vomiting.

The perusal of Dr. Barclay's interesting paper, as well as what I constantly hear and witness, proves to me the necessity of once more placing briefly before the Profession some of those points in the treatment of continued fever by cinchonism on which I have already urgently insisted—orally, and in my several publications,—during the last three years. As these points are in nothing modified by subsequent experience, I shall give the precise words in which I originally stated them, under the impression that this mode of recalling the subject may be more advantageous than any new or more lengthened statement:—

"I would here beg to recal, briefly, a few of those principles on which I have elsewhere strongly insisted, namely, that the value of cinchonism in typhus will be in proportion to its early induction; that, adopted early, it arrests with certainty, in the vast majority of cases, the course of all continued fevers, and thus presents the complications which prolong the disease and peril life; that we cannot arrest all cases of typhus fever by cinchonism, nor can we all cases of ague; serious visceral disease, in either case, will interrupt the specific power of the remedy; also idiosyncracy in some, and a broken-down state of the constitution in others, will prevent its success; that a vital organ already seriously damaged, or the vital fluids already seriously vitiated, will necessarily render the success of cinchonism doubtful; but that in none of the foregoing conditions, idiosyncracy excepted, should the remedy be altogether suspended, for, even in these, its administration will prove commonly useful, and *always* safe; that after the first impression has been made on the disease by cinchonism, the patient should be constantly and *well supported:* no slops. Wine will be often necessary, and (especially with hospital patients) brandy. To the purely medical measures I need not refer, but there is one point on which I am anxious to fix the attention of the Profession, namely, that in estimating the specific power of cinchonism over typhus fever the practitioner *must carefully distinguish those cases of visceral disease, attended with low inflammation and typhoid symptoms*, which are continually admitted into hospitals as 'typhus,' or 'typhoid' fevers. In these cases the failure of cinchonism attaches, not to the remedy, but to the physician."—Appendix, p. 61.

I may, perhaps, be permitted to add, that the dose I first adopted, namely, 10 or 12 grains every two hours to an adult, is that which I still find to be the most uniformly advantageous, and attended with the fewest inconveniences to the patient.

I had concluded the foregoing remarks when the subjoined notes reached me. The history of this case demands a word of explanation. About the end of December I was suddenly called to London to visit an old patient, and met in consultation Dr. Hughes, physician to Guy's, and Mr. Collingwood, late house-surgeon to that hospital. Through the latter gentleman, I was favoured with an intimation from Dr. Gull, to the effect, that a fever case had just been admitted into his wards (Guy's Hospital), in which he was desirous of seeing the effects of cinchonism tested, and was willing that the patient should be placed, for this purpose, under my care.

Dr. Gull desired that the new system should be tried in this girl, for the following reasons: her sister was already a patient in the same ward, admitted from the same house, with the same symptoms, and in whom the fever had run a course of five weeks. Dr. Gull, therefore, fairly concluded that the present case might be expected to run a pretty similar course; consequently, that it offered a favourable opportunity for comparing the results of the new with the old system of treatment.

On this understanding, I took charge of the patient, Dr. Gull appointing Mr. Moon, an intelligent pupil of the hospital, to note down carefully the results. I should state that, after the first day, I never met the note-taker, nor saw his notes until they were forwarded to me here from London. One symptom I find omitted by Mr. Moon, in the report of the "23rd, half-past three o'clock p.m.," though specially pointed out by Dr. Gull at the moment, namely, that "the

tongue was getting dry." With this single omission, the report is strictly accurate. I have since learned with pleasure that Dr. Gull is about to investigate this question himself. The investigation could not possibly be committed to a better man.

MR. MOON'S NOTES.

"Catherine Payne, 8 years of age, rather strumous-looking girl, (brown hair, long eyelashes, delicate skin), living at 51, Union-street, Borough, was admitted, December 22, into Charity Ward, No. 12, suffering from typhoid fever, under care of Dr. Gull. (Her elder sister came in three weeks before with same disease; in her case the rose-coloured spots were present).

"Her mother states, that about a week ago she became dull and listless, seemed cold and shivered, lost her appetite; cough came on at the same time, attended with soreness of chest, which was relieved by application of a mustard-plaster. She also had an attack of diarrhœa, for which her mother gave her several doses of chalk-mixture, thereby partially checking it.

"During last few days she complained of thirst. Skin felt hot and dry; face a good deal flushed; was listless; sleep disturbed; low mutterings.

"22nd.—Mist. cretæ ℥j., si opus sit. Fever diet.

"23rd.—Has not had a good night, moanings in sleep; bowels having been opened but once, has not taken any mist. cretæ.

"3½ p.m.—Pulse feeble, variable, 120; respirations 28 per minute; skin hot and dry; face slightly flushed; tongue injected at edges, slightly covered with whitish fur, and fissured towards centre; lips parched; abdomen full and puffy, and, as well as the chest, rather tender; no maculæ; countenance dull and inexpressive. Patient is slightly deaf.

"About this time she was seen by Dr. Dundas, at whose suggestion she was ordered quinæ disul. gr. v., syrupi ℥j., acidi sulph. dil. ♏vi., aq. ℥ss., tertiis quibusque horis. Diet: beef-tea, arrowroot, milk. The first dose was given at half-past 6 p.m. At half-past 8 p.m., patient was *sleeping quietly. Skin moist and cooler; face paler; perspiring;* PULSE FULLER 120.

"24th.—Passed a better night, sleeps quieter, less moanings. Second dose of quinine given at 10 a.m. At 11 a.m., pulse 114, feeble, variable; tongue redder, fur browner; skin cooler than yesterday, but dry; no pain, no soreness of chest or abdomen, no headache, still thirsty, no maculæ visible. Bowels opened once during night, not relaxed; appetite pretty good.

"25th.—Slept very well. Pulse 96. Tongue moist and clean; skin rather hot and dry; bowels not opened. Position good; aspect brighter; appetite improving; no maculæ.

"26th.—Slept well; appetite good; skin cool, but slightly roughened and dry; pulse 108, feeble; respirations, 28 per min.; tongue slightly furred, not so red; no headache; thirst diminished; general aspect improved.

"27th.—Passed a good night. Bowels open; skin cool, rough; appetite good; appears to be doing well.

"28th.—Passed a good night. Pulse 84, feeble; skin not heated, dry, much roughened; no maculæ; tongue moist, not injected, slightly furred; appetite very good; no headache; deafness gradually leaving. Rep. quinæ disulph. bis die tantum.

"29th.—Pulse 80, feeble; appears cheerful and more intelligent; no headache; tongue moist and clean; skin cool; appetite very good; bowels open.

"30th.—Progressing favourably.

"It should be mentioned that the skin of this patient is naturally rough, and on examining her sister it was found to be the same."

The above case is important in several points of view. In the first place, the paragraph which *I* have marked by italics, disposes of Dr. Barclay's idea of the "special effect" of quinine in continued fever being "limited to lowering the general circulation." In the next place, it proves that the effect of the remedy, as I have already pointed out, is occasionally displayed in the gradual and simultaneous abatement of all the urgent symptoms, unaccompanied by the slightest appearance of cinchonism. This girl (eight years old) had, for example, from half-past six o'clock p.m. on the 23rd of December, to the morning of the 28th, five grains of quinine every third hour; yet there was no sign of dizziness, tinnitus aurium, headache, or vomiting. Slight deafness she certainly had, but that existed prior to the exhibition of the quinine, and was not increased by it.

Being obliged to return to Liverpool, my last visit to the patient was made on the 27th, on which day I considered her perfectly convalescent; though it appears, by the report, that the quinine was continued up to the 28th, when the dose was diminished to five grains twice a-day. It is important to observe that the "rose-coloured spots," noticed in her sister's case, did not appear in the present. Would they have appeared had the disease been permitted to run the same five weeks' course? One remark more and I conclude. Dr. Barclay urges, that those of his cases which "got well very speedily" under cinchonism, might have got as rapidly well without. Possibly. Be this, however, as it may, had the reports of the Drogheda and the Cork Fever Hospitals in Ireland (all other evidence put aside) come under Dr. Barclay's notice, I think he must have hesitated before laying down so broadly, on the data he has adduced, that the treatment of continued fever by cinchonism "has no advantages."

P.S. A communication has just reached me from Dr. E. D. Fenner, of New Orleans, the able editor of the "Southern Medical Reports." After observing on the successful issue of the "abortive treatment" by large doses of quinine of the summer and autumnal fevers of America, he adds: "I am now pushing the inquiry into typhus and typhoid fever, and, thus far, my observations *indicate a like happy result.*"

I gladly embrace this opportunity of at once acknowledging the obligation I am under to my Transatlantic *confrère* for his highly interesting letter and the valuable work which accompanied it. I shall certainly profit by Dr. Fenner's suggestions, and shall look with the greatest interest to the results of his future experience in the boundless field which he enjoys.

OBSERVATIONS
ON A RECENTLY-PUBLISHED WORK,
ENTITLED
"THE FEVER AT BOA VISTA, UNCONNECTED WITH THE VISIT OF THE ECLAIR TO THAT ISLAND,"
BY GILBERT KING, M.D., INSPECTOR OF HOSPITALS AND FLEETS.

By J. O. M'WILLIAM, M.D., F.R.S., R.N.
Medical Inspector H.M. Customs.

Since the publication (in April, 1848) of my "Remarks on Dr. King's Report on the Boa Vista Fever," Dr. King has from time to time committed himself to sundry promises, or rather threats, to the effect, that he would speedily convince the Profession that they had wrongly estimated the value of our respective Reports on the subject of that epidemy.

Years, however, rolled on without any appearance of the promised work, until within the last few weeks, when, after a protracted period of incubation, and, it may be presumed, a corresponding degree of labour, Dr. King has at length produced an octavo volume of 110 pages, entitled, "The Fever at Boa Vista in 1845-6, unconnected with the Visit of the Eclair to that Island."

It may appear rather strange, that, at this late day, Dr. King should have been induced to re-open a question which had been considered by the great majority of the Profession and the professional press throughout Great Britain, France, and America, as long since finally disposed of. It may seem even still more extraordinary that I should trouble either the public or myself by further noticing the author of a Report which has long been condemned upon his own showing, and whose conclusions have been, by almost universal consent, declared to be logically irreconcilable with the premises upon which he sought to establish them.

But there is something to be said for Dr. King. He has met with severe disappointments and mortifications. He went out to Boa Vista a resolute anti-contagionist; he returned to England with his opinions more deeply rooted than ever; and, what was more, he brought home materials for a Report, which, he fondly imagined, could not fail to convince

the world that the Boa Vista epidemy was of endemic origin.(a)

His "Report," however, on being presented to the House of Commons, (March, 1848,) was not accompanied by any mark of support from the Director-General of the Medical Department of the Navy. In due time, the Report passed through the ordeal of criticism by the public press, the verdict of which, contrary to Dr. King's expectations, was to the effect, that from his Report, "which was intended to disprove contagion, the actual contagion and importation of the Boa Vista fever could be clearly made out;" and that it was in every respect useless, except that its main facts, so far as they went, corroborated the conclusions of my Report, which it was Dr. King's aim to overthrow.

Nor is Dr. King himself pleased with the manner in which his "Report" has been noticed by Sir William Pym and myself. We have not, it appears, deported ourselves as critics quite to his liking. "We have," he says (p. 100 recent work), "jumbled together statements, arguments, implications, and objections, *rudis indigestaque moles*, without the slighest regard to method or connexion." Dr. King, therefore, feeling convinced that Sir William Pym, myself, and the Press were equally incapable of doing him justiee, resolved to do justice to himself. Accordingly, at pp. 93-4 of his recent work, he presents us with a review *of his own Report*, which is doubtless much more satisfactory to himself than anything yet produced on the subjeet by other Reviewers. By way of contrast, he very modestly prefaces this "Review" by his opinion of my Report. "Dr. M'William's argument rests on a partial and narrow view of the whole case, and is supported only by the vague evidence and opinions of persons who were neither competent nor disinterested witnesses. *Mine, on the other hand, is founded on a number of important and remarkable occurrences, coincident with the fever, which cannot be controverted, and which supply evidence absolutely necessary to enable us to form a just opinion.*" Unfortunately for Dr. King, the world refuses to be guided in their estimation of a work solely by the opinion of its author, else we should never hear of such a thing as a bad book or a bad report. It can do no harm, however, to leave Dr. King in the enjoyment of the very favourable view of his own Report recorded by himself. While I have no objection that mine should continue to be judged solely by the opinions of it which may be recorded by others.

When it is still further considered, that Dr. King believes that his "character as a physician and as a man of integrity has been assailed" by Sir William Pym and myself, it will easily be understood how pressing has been his desire to vindicate himself from such a charge, and in some degrec to recover himself from the discomfiture that must have attended the failure of his Report. It is but just to Dr. King also to add, that another great object which he had in view in writing the present work, was the very laudable one of "removing a stumbling-block," which he considers "has been most unnecessarily placed in the way of inquirers" into the Boa Vista epidemy. (*Vide* Dr. King's recent work, p. 4.)

For myself, I cannot hesitate to declare that I believe Dr. King, notwithstanding his inconsistencies and proneness to error, to be wholly incapable of wilful misrepresentation, and that although I quite agree with the reviewer in the *Dublin Quarterly Journal of Medical Science*, who, when reviewing the Boa Vista question, considered "Dr. King a person with whom it is impossible to reason on the subjeet," I am, nevertheless, of opinion with the Reviewer, "that Dr. King has acted conscientiously."(b) It would be uncharitable to suppose that error cannot be committed unless by a conscious sacrifice of the truth.

It is not, then, with the vain hope of carrying conviction to the mind of Dr. King that I proceed to make a few remarks on his recent production. Nor do I feel that it is at all incumbent upon me again to argue the Boa Vista question with him. I consider it, however, a duty, as the book may fall into the hands of some who are unacquainted with what has been already written on the subject, to show that many of the statements which it contains are at variance with the real facts of the case, and that others are wholly incompatible with some of those which are to be found in his own "Report."

The first sixteen pages of Dr. King's book are taken up chiefly with the history of the "Eclair" before her arrival at Boa Vista, and with a disquisition on contagion and infection, the distinction between which Dr. King seems to have settled much at least to his own satisfaction. He does not agree with Sir William Pym, therefore we may infer that he does not consider yellow fever to be a disease *sui generis*. He does not admit that a remittent fever may become exalted so as to become yellow fever. He cannot seemingly understand how a disease not primarily contagious may have the quality of contagion impressed upon it, or that a disease may be altered in degree without being essentially altered.

If Dr. King had taken the trouble to glance over some of the principle works on fever since the time of Pringle, he would have found authors, in whose company he needed to feel ashamed, advocating the doctrine of contingent contagion,—he would have found detailed the circumstances under which fevers may acquire this adventitious property, and he would have found that all the necessary conditions existed among the crew of the Eclair,—he would have found Dr. Bryson, whose writings he most justly eulogises, asserting that the Eclair fever became contagious (a); and he would also have found Sir William Burnett, in his Reports to the Lords of the Admiralty, stating that the disease in the Eclair was originally the "remittent fever of the coast," exalted by causes which he mentions into a contagious yellow fever.(b)

At page 9 of his recent work, Dr. King states that "there was an unwonted combination of circumstances in the Eclair, even in her construction, unfavourable to the health of her crew;" and to this fault in construction, and to mud under the boilers and machinery, he attributes the reappearance of fever in the vessel on her return to the coast, under the new name of the Rosamond.

But Dr. King does not stop here. He is determined that a cause in the ship herself shall account for fever breaking out on board the Rosamond for the third time (on the West Indian station) within the last few months.

Like others of Dr. King's inferences, this inference also is groundless. The Rosamond sailed from Jamaica to Nicaragua, where she arrived on the 9th June, 1852, with her crew quite healthy. After fourteen days, the first case of remittent fever showed itself, and the disease ran through 77 people out of 150 men and officers. She eventually left the place on the 12th July, and nine days afterwards fresh cases ceased to occur, although only 51 per cent. of the people had gone through the disease when it stopped. The Indefatigable frigate, the Persian brig, and other men-of-war had, some time before, contracted fever in the same locality. To all who are not blinded by the most narrow prejudice, it will be apparent, that in the Rosamond, as well as in the other ships, it was the locality the ship was in, not any cause in the ship herself, that gave rise to the fever on the occasion in question.

Dr. Watson, the Surgeon of Port Royal Hospital, Jamaica, who received the sick crew of the Rosamond, says:—"From associations connected with the former history of the Rosamond, there was a considerable panic, and a very general impression among her people that the cause of this illness was something in the ship. It is quite clear that this could not have been the case."(c)

But to the main question. The history of the fever in the Eclair, and at the island of Boa Vista, presents salient points

(a) Dr. King states, (p. 80, "Boa Vista Fever unconnected," etc.,) that his Report was sent in *shortly* after his return to England, in July, 1847. As I shall hereafter show that Dr. King is rather ambiguous in his mode of expressing time, it is desirable to know whether, on this occasion, Dr. King means a few days (as in the case of my own Report), a few weeks, or *a few months*.

(b) *Dublin Quarterly Journal of Medical Science*, No. XV., p. 193.

(a) Epidemic Fever of Sierra Leone, etc., p. 134. He might have ascertained that the disease, as I stated, had changed for the worse on the passage from Sierra Leone to Boa Vista, and still more so at Boa Vista. Dr. Bryson (p. 121 "Epidemic Fevers of Sierra Leone,") says, "the cases of fever which occurred during the stay at Boa Vista, with the exception *of being more malignant*, and, consequently, of shorter duration, were not different from those that occurred on the passage along the coast from Sierra Leone." Mr. Machonchy, in his private notes, has remarked, that *at first when the fever began to be prevalent, the worst symptoms came on gradually, but now the vomiting commences on the second day, and sometimes even on the first, and never ceases until the cold sweat is out, and the patient is moribund. One man was attacked in the afternoon, and had black vomit before midnight.* As for medicine, *in the really true cases, it can hardly be said to have any effect.*"

(b) Admiralty Correspondence on Eclair, p. 55.

(c) See a very clear account of the epidemic fever which occurred at Greytown, Nicaragua, on board H.M.S. Rosamond, formerly Eclair, by John Watson, M.D., Surgeon Royal Naval Hospital, Jamaica. *Edinburgh Monthly Journal of Medical Science*, for November 1852, p. 441.

which, fortunately, cannot be mistaken. The arrival of the Eclair at Boa Vista with yellow fever among her crew,—the perfect state of health of the inhabitants at this period,—the landing of the sick crew on a small island off Boa Vista,—the increased mortality among the crew while at this island,—the re-embarkation of the survivors, sick and healthy,—the attack and death of two Portuguese soldiers on the same island a few days after the crew were re-embarked,—the attack of another soldier (a negro) soon after the deaths of his European comrades, and the consequent removal of himself and another negro comrade to the island of Boa Vista,—the attack and death of a European woman on that island who attended these soldiers, and who lived next door to them,—the gradual spread of the disease over the whole island,—and the immunity from the disease secured to those who adopted measures of isolation and segregation,—are all facts standing out in relief so bold as to defy all attempts of artifice to distort, or in any wise to disfigure them. They are, indeed, all (with the exception of the last-named) fully admitted in Dr. King's Report.

Dr. King, in his recent work (pp. 16, 17,) seems to consider it a decided proof against the contagiousness of the disease, that it was not earlier communicated to the inhabitants of Boa Vista through the persons from the shore who visited the ship on her first arrival, and the fort after the crew were landed on the small island,—through the clothes that were sent on shore to be washed,—through the labourers on board the Eclair and on the small island,—through the officers of the Eclair living in the house at Santa Barbara in Porto Sal Rey,—and, lastly, through Captain Estcourt and the purser of the ship, both of whom, Dr. King alleges, had fever in the town, and thus brought "a numerous class of persons in close approximation with the disease."

Now, supposing these assumptions to be correct, they can only be regarded in the light of mere negative evidence; but in the main points they are wholly incorrect.

Dr. King, in his recent work, p. 17, accuses me of an "attempt to throw the linen" of the sick of the Eclair overboard, and affirms that it was not so disposed of. In reply to this accusation, I beg to refer those who have any doubts on the subject to the evidence of the acting commander of the Eclair, Captain Harston ("Correspondence on Subject of Eclair," p. 28,) and to the sick-list of the Eclair, which shows that two officers only were sick between Sierra Leone and Boa Vista, and that both of them recovered. Dr. King may affirm what he pleases, but the evidence I have alluded to is on record, and is against him. As respects the house in Santa Barbara, it was wholly given up to the officers, and, contrary to what Dr. King states, it was not occupied for some weeks after its evacuation by them, and then not before it had been well cleaned and whitewashed. It was Senhor de Sà, the Chief Justice, with his two European attendants, who occupied the house after the officers left. The owner of the premises was Senhor Librao, a negro, who had no European servants whatever.

With regard to Captain Estcourt, as I have elsewhere said, no man could have taken more precautions against infecting others than he did when living in Mr. Macaulay's house; and, at the time he was taken unwell, there were only black servants in the house. I need scarcely add, that he went to the fort, in accordance with the stringent rule he had applied to others the moment he felt at all ill.

As respects the purser, he certainly, as Dr. Stewart said, "went to the Consul in a state of delirium;" but the disease under which he laboured was not "fever," but "delirium tremens." (a)

So much for Dr. King's "attempt" to bring a numerous class of persons into close "approximation with the disease."

It is well known that the Eclair's crew were re-embarked, and that the ship left Boa Vista on the 13th of September; also that two European Portuguese soldiers were attacked with yellow fever at the fort and died. To prevent cavil, we shall say with Dr. King, on the 20th and 21st September respectively. (b)

These deaths were ascribed by Dr. King, in his Report, to the great susceptibility of the soldiers to the attack of "*endemic fever.*" But as the Eclair fever was a new disease in Boa Vista, it was necessary for Dr. King to provide a new cause for this "*endemic,*" so he invoked an "*epidemical* constitution" of the atmosphere about the end of September or beginning of October; but, as the men died before this period, he called to his aid two privies and a dusthole, besides the crowded sick crew at the fort. These explanations, except the presence of the sick crew, having been severally or collectively pronounced to be inadmissible, Dr. King, in his recent work, offers, on the authority of "Parent Duchatelet," the soil from the privies in the form of "poudrette;" as also intemperance, bad water, and unwholesome meat. Dr. King is an old officer, and he surely will not, on reflection, re-assert that carrion is ever served out to the crews of Her Majesty's ships. When meat of any kind is considered unwholesome, it is surveyed by the officers of the ship, and, if necessary, condemned.

But I have the best reason to know that the meat was perfectly sound. It was supplied by the Vice-Consul, and was the same as that with which the tables of the Consul, of Mr. Macaulay, of the Governor-General, and others, were provided, and they experienced no bad effects from its use.

The brackish water was surely much more likely to produce diarrhœa or dysentery than yellow fever.

And if proof of the contagiousness of any disease is to be set aside by the intervention of a privy or a dust-hole, then the question must, in all cases, be wholly incapable of proof, as these must always exist, in some shape or other, where men are congregated together, even in the rudest state of society. These alleged causes, as well as Dr. King's present endeavours to invoke malaria before the death of the soldiers, may be safely left in the hands of the Profession. I will only observe, that Dr. King's charge, in his recent work, (p. 71,) that I had "only lately and reluctantly admitted, that the place was much overcrowded," is at variance with fact; for I have particularly alluded to this condition of the crew at the Fort, in my "Report," (pp. 78, 79, 101,) and in my "Remarks," etc. (pp. 7, 8.)

I have, in the "Remarks," (p. 7,) plainly told Dr. King, that he approached the real cause only when he spoke of the atmosphere being "polluted by the overcrowding of the place, the exposure of the clothes, bedding," etc., etc.

With an almost inconceivable disregard for the statements contained in his "Report," Dr. King now endeavours to make it appear that Miguel Barbosa was not taken ill until November!! In his Report, p. 6, he says, "Miguel Barbosa informed me that *he was attacked with slight fever some days after his comrades died at the Fort.*" (They died, according to Dr. King, on the 20th and 21st September respectively.) Dr. King nowhere in his "Report" questions the accuracy of this information. Five years' labour, however, has enabled Dr. King to discover one mistake in the answer of Barbosa to one of my questions, to the effect, that when he left the house in Beira, he found Luis Briza sick in barracks, which is simply impossible, seeing that Briza did not die until November 12th.

Does not Barbosa state to me, (Dr. M'William's Report, Q. 234 a,,) "I was still complaining when I went to the barracks?" And Dr. King will hardly contend that he did not go there until November. But I will not insult those who have taken an interest in the Boa Vista epidemy by recapitulating the overwhelming evidence against Dr. King's "new version" of Barbosa's illness. Should any, however, have a doubt on the subject, I would refer them to the evidence of John Jamieson, of Pedro Manoel, of Silvester José Romess, of Joana Teixeira, of Senhor Carvahal, of Corporal da Cruz Silva, of Senhor Joao Baptista, and to that of the Correspondence *in full* of the Consul and the late Mr. Macaulay.

The extracts that have been made by Dr. King and others from the letters of Mr. Macaulay, would surely lead people to infer that that gentleman considered the disease at Boa

(a) The late Mr. Macaulay, in a letter to me, says, "The Purser, though generally, I was told, a temperate man, was induced by alarm at the progress of the 'Eclair fever,' to drink a great quantity of spirits, which brought on 'delirium tremens;' and it was whilst he was in this state, that he paid the visit to the Consul."

(b) At p. 6, of my "Remarks," &c., I ask, "How are these startling facts to be explained? Two soldiers, in sound health, go from an island everywhere healthy to another island where there are many sick and some dying daily. They also sicken and die."

Dr. King does not question the healthiness of the island, (Boa Vista,) but he is never at a loss to invoke a cause, independent of the sick crew of the Eclair. On this occasion he says, "But it was in an unhealthy season." Now, the state of health enjoyed by the inhabitants of a place is, I believe, a fair criterion of the healthiness or unhealthiness of a "season;" and if Boa Vista, at the period in question, is to be tried by this not unreasonable test, then it was *not unhealthy.* Probably Dr. King means "the season ought to have been unhealthy."

Vista as of endemic origin. Other extracts, however, dispel all idea that he had any such opinion regarding the real cause of the disease. In his letter to the Earl of Aberdeen, then Secretary of State for Foreign Affairs, dated at St. Nicholas, Dec. 24, 1845, he says: "Judging after the event, it is not difficult to see, that a different course of proceeding, on both sides, would have saved us from our present troubles." "But this circumstance does not necessarily imply, that in any particular quarter we are justified in imputing blame, except so much as we may all equally share for not having apprehended danger when (as it has been already too plainly shown) it ought to have been apprehended and provided against. Had the building" (at the Fort) "which was so long used as a fever hospital been properly fumigated and purified prior to its re-occupation; *and had the soldiers who were there seized with fever been kept (like the fever patients of the Eclair) from all intercourse with the densely-peopled and closely-built town, no bad consequences would have been experienced from the visit of the Eclair.*"

[To be continued.]

THE LONDON PRACTICE OF MEDICINE AND SURGERY.

GUY'S HOSPITAL,

STRANGULATED OBTURATOR HERNIA.—OPERATION.—REDUCTION.—FAVOURABLE PROGRESS OF THE PATIENT.

[Under the care of Mr. BRANSBY COOPER.]

An extremely interesting case of obturator hernia, in which an operation has been performed with successful results, has during the past week occurred under the care of Mr. Cooper, and we hasten to lay before our readers some particulars concerning it. Instances in which protrusions of intestine at the aperture in the obturator membrane for the passage of the vessels and nerve are of extreme rarity, and the greater portion of those on record appear to have been discovered for the first time in the *post-mortem* room. The fatality of the lesion appears, however, to be connected rather with the difficulties attending its diagnosis than with those appertaining to its treatment. As far as we are aware, in all the published cases, the return of the intestine was easily accomplished, the stricture being large and readily dilatable. In one recorded by Dr. Frantz, spontaneous reduction appeared to be accomplished. The patient, a woman, had suffered from pretty well-marked symptoms of the affection for several days, which suddenly subsided immediately after she had felt a sensation as if something passed up from the locality of the obturator aperture. In another, which occurred to Dr. Garengeot, and was attended by a perceptible tumour, reduction was effected by means of the taxis. It is also mentioned in the interesting case in which gastrotomy was performed by Mr. Hilton, that the bowel was replaced by gentle traction, assisted by firm pressure in the groin, and without any necessity for resort to instrumental enlargement of the stricture. Division of the upper edge of the stricture was, however, resorted to in Mr. Obré's case;(a) but even in this case, it is stated that the bowel was *not tightly* constricted. in the case we are about to relate it will be noticed that the bowel slipped up almost spontaneously during the examination of it by means of the finger. The circumstance, that this form of hernia is more frequent in women than in men, may doubtless be explained by reference to the peculiarities of pelvic conformation in the former sex.

It is evident that in this accident the discovery of an external tumour must depend very much on the stoutness of the patient, for in a fat subject it must be nearly impossible to ascertain the existence of a protrusion so deeply placed as the obturator foramen. In Mr. Cooper's case the patient was remarkably thin, yet it was only by a most cautious examination that the swelling was detected. Not, however, further to anticipate, we shall at once proceed to its details as given in the notes taken by Mr. Maunder, one of Mr. Cooper's dressers.

Mary Ann Neil, aged 49, the mother of several children, a thin and spare woman, was admitted on the 20th of January, 1852, having suffered for three days with the symptoms of strangulated hernia. It appeared that she had been subject to a small protrusion of bowel at the umbilicus for ten years, and that for about two years she had worn a truss on account of it. For nearly five years she had been disqualified for any active employment by asthma. She stated, also, that repeatedly during the last two years she had suffered from sudden attacks of severe pain in the right groin, which were frequently attended with sickness. These paroxysms used to last usually about two hours, subsiding as they came on, somewhat suddenly. Her present illness commenced on January 17, in the evening of which day, whilst sitting at her sewing, she was suddenly seized with pain in right groin of similar character to that of former attacks, and commencing deep in the groin and proceeding thence down the inside of the thigh. The pain was so great that she could not sit upright. Nausea and severe vomiting of bilious matter soon after came on, and continued with little intermission until the time at which she was brought to the hospital. On the following day she sent for a surgeon, who administered castor oil, which effected a full evacuation of the bowels. On the 18th the oil was repeated, but failed to produce any effect. Her pain continued unabated. On the 19th the dose was again administered, but soon afterwards rejected by vomiting. The pain in the part was not so severe as before, but she had cramps in the extremities and continuous vomiting. In this condition, the bowels having been unrelieved for two days, and three days having elapsed since the beginning of the symptoms, she was brought into the hospital. On the 20th, her countenance was anxious, skin cool; pulse 100, small and weak; tongue covered with thick brown fur; abdomen tender; urine scanty.

Mr. Cooper saw her soon after admission. Having been informed that there were symptoms of strangulated hernia, without any tumour being discoverable, he at once instituted a careful examination of the whole abdomen. On exposing the pubes, a want of symmetry between the two sides was observed, which was apparently caused by the presence of a slight puffy swelling in the right groin. Pressure in this part confirmed this impression, and it was thought that a slight impulse might be felt on making the patient cough. Attempts at the taxis having failed, Mr. Cooper determined at once to perform an exploratory operation. An incision having been made over the seat of swelling, and the dissection performed as if for a case of femoral hernia, Mr. Cooper slit up the inner part of the sheath of the vessels, and passed his finger up to the crural ring. Nothing was found; the parts were in a natural condition, and now that, by the division of the skin and fascia, all tension had been relieved, the existence of any tumour at all became doubtful. On further exploration, however, Mr. Cooper discovered that the pectineus muscle, part of which had been exposed, was slightly bulged upwards. He at once expressed his conviction that there must be an obturator hernia, and, having separated the edges of the pectineus and adductor brevis, he succeeded in exposing a small portion of the sac. By a transverse division of some of the fibres of the pectineus the whole sac was brought into view. The protrusion was about the size of the bowl of a dessert-spoon, and it felt soft and flaccid. Whilst being examined by the finger, it suddenly slipped up *en masse* into the abdomen. Immediately after the reduction was thus accomplished the woman expressed herself as being relieved from a sense of dragging and constriction which had existed in the abdomen. The parts were then brought into apposition, and supported by a wet compress and bandage. The patient was returned to bed, and ordered to take two grains of opium at once, with directions that half the dose should be repeated every four hours.

In the evening she appeared as comfortable as could be expected, and was quite free from nausea. It should here be noted, that no pressure was being applied to the tumour at the time the reduction was effected, it appeared to have been pressed downwards by the pectineus muscle, and, after the division of that structure, was apparently free from constriction. Strictly speaking, it could scarcely be said to have been strangulated.

January 21.—Has slept fairly in the night, and has had no vomiting or nausea since the operation; pulse 120, full, and of good power; tongue brown and dry in the centre, white at the edges; skin moist; abdomen tolerant of pressure; bowels have not acted. Mr. Cooper saw her in the afternoon, and ordered a gruel enema, containing half an ounce of castor oil, to be administered.

℞ Pulv. opii gr. j., hydrarg. chlorid. gr. ss.; ft. pil. 4tis horis sumend.

24th.—During the last two days she has somewhat improved, but the bowels have not as yet been relieved. Two enemata have been administered, but they failed to bring away fæcal matter; much flatus has, however, been passed per anum; the tongue is clean, not so red as it was, but still rather dry; pulse 110, soft, and

(a) Mr. Obré's case is peculiarly interesting, as being, we believe, the only one in which reduction was accomplished by operation with a successful result. It affords, in many particulars, a close parallel to the present one.

rather feeble; her appetite is returning, and, at her urgent request, she is allowed to take a small portion of mutton-chop. Rep. pil. n. et m. sumend.

26.—Although the bowels have not yet acted, she appears to be going on favourably, sleeps fairly, and enjoys her food. The tongue is less dry. The persistent constipation is probably to be explained in part by reference to the opium which has been prescribed with such beneficial effect, and in part by the fact, that the lower bowel was very freely evacuated on the day after the first occurrence of the symptoms.

We shall not fail, in our next Number, to report the further progress of this very interesting case, when we hope also to add some further comments, which want of space compels us, for the present, to postpone.

ST. BARTHOLOMEW'S HOSPITAL.

RUPTURE OF LIVER AND INTESTINE FROM CONCUSSION OF ABDOMEN.—DEATH IN SEVENTEEN HOURS.

[Under the care of Mr. STANLEY.]

We place the two following cases in juxtaposition for the sake of the contrast which they afford as regards the severity of the symptoms which followed lesions of nearly similar character:—

Thomas Hart, aged 15, a tall, thin youth, sustained in the evening of the 20th of August an injury to the abdomen from the fall of a very heavy chest, which struck him in the belly. He was admitted almost immediately after, when, although he exhibited in his countenance and manner an extreme and peculiar degree of anxiety and restlessness, yet there were present none of the symptoms of deep collapse, which are usually considered to mark grave visceral lesions. His pulse was of good volume and but little quickened, and his skin warm. Those who saw him differed much in opinion as to whether he had sustained a severe injury or none of importance.

℞ Tinct. opii ♏x., 4tis horis; brandy ʒss. statim.

August 21.—The night has been passed in extreme pain. He has been much troubled with hiccough and vomiting of green bilious matters. Urine has been passed in full quantities and unmixed with blood. His aspect is sunken, and of a pale leaden hue; hands cold and clammy. Death took place in the afternoon, seventeen hours after the accident. During the last two hours of his life, his appearance had approached that of a patient in cholera.

There was found at the *post-mortem* examination a short laceration in the under surface of the liver, and another of very small dimensions in the duodenum in relation with that viscus. There was also another laceration in the first part of the jejunum; it was, however, very small. The peritoneum was extensively congested, and contained some turbid fluid mixed with flakes of lymph, as also a small quantity of bright yellow bile, and some bile-stained fæcal matter.

ST. THOMAS'S HOSPITAL.

RUPTURE OF JEJUNUM AND MESENTERY.—DEATH FIVE DAYS AFTER THE ACCIDENT.

[Under the care of Mr. SIMON.]

Joseph Reading, aged 60, was admitted January 12, having been knocked down by a horse and cart. He complained only of his right leg, the fibula of which was found to be fractured. In about an hour, however, he began to complain of pain in lower part of abdomen and left lumbar region. Pulse 80, regular and soft. Fomentations were ordered to be applied, and his urine was drawn off by Mr. Snoad, his dresser, after which he felt much relieved.

On the 13th he was much in the same condition, and still complained of slight pain. As the bowels had not acted, two doses of the compound senna mixture were administered.

On the 14th had slept pretty well in the night. The purgative not having acted, two doses of castor-oil, followed by two calomel and colocynth pills, were administered.

15th.—The abdomen is tender and somewhat tympanitic; tongue very foul; pulse soft and slow. By means of an enema some lumpy fæces were evacuated. A mustard poultice was ordered to be applied to the abdomen.

16th.—Much in the same condition. Bowels have acted freely; pulse 100, moderately hard. In the course of the morning he was affected with stercoraceous vomiting,

Vespere.—Abdomen tympanitic and very tender; pulse 120, irregular. He lies on his right side, with the knees drawn up; extreme tenderness in left lumbar region; has taken several doses of opium; thirty leeches have been applied to the left lumbar region, by which he has been much relieved; has not vomited since noon.

℞ Calomel. gr. ij, pulv. opii gr. j., 4tis horis sumend.

17th.—He has slept a good deal, and does not seem much worse; has vomited in the night; skin cool; expression anxious. Towards noon he began to get much worse, and, gradually sinking, he died in the evening.

From the notes taken by Dr. Bristowe we have extracted the following account of the autopsy:—On opening the abdomen the surface of the peritoneum exhibited in all parts a considerable degree of capillary congestion, and in many the intestines adhered to each other and to the parietes by means of recent and dirty-looking lymph. The great omentum was adherent to the parietes on the left side, and on tearing it away some fetid pus escaped, with which fluid fæcal matter was mixed. Nearly a pint of this fluid was contained in a circumscribed cavity, which occupied the posterior part of the left lumbar region. This cavity was bounded by the abdominal wall and by the mutually adherent viscera, and it was lined by a thickish layer of fibrine. Opening into this cavity was a laceration in the jejunum, about two feet from its commencement, and capable of admitting the tip of the little finger. The jejunum was distended with fluid fæces, but the ileum was empty and contracted. In the mesentery by which the latter is attached was a rent about two inches long, around which the tissues of the membrane were tumid, and of a dark purple colour from extravasation of blood. The intestine corresponding to that part was also of a dark and almost gangrenous aspect, but the appearance, on close inspection, proved to be due only to ecchymosis. No disease of the other organs was detected.

The age of the patient in this extraordinary case probably accounts, to a certain extent, for the tardiness with which the symptoms were developed, as also for the circumstance, that sufficient time was allowed for lymph to be effused around the escaped intestinal contents, so as to confine them within a circumscribed cavity, and prevent their influencing so severely, as would otherwise have been the case, the whole peritoneal surface.

CASES OF EXTENSIVE NECROSIS.—OPERATIONS FOR REMOVAL OF DEAD BONE.

[Cases under the care of Mr. SOUTH and of Mr. SIMON.]

The unusual frequency of cases of necrosis during the last few years has, we believe, been the subject of remark by several practical surgeons in this Metropolis. In particular, we remember to have heard Mr. Gay express a very strong opinion on this point, as grounded on his experience at the Royal Free Hospital, and it is one in which our own observation leads us to fully coincide. The operations which we have recently witnessed for the removal of dead bone have certainly been extremely numerous, and in many instances the disease has appeared to follow on slight and inadequate injuries. After amputations, for instance, the exfoliation of large portions of the remaining shaft of the bone have been very frequent. It would be very interesting to know whether the like prevalence has been noticed in the provinces. Boils and carbuncular diseases of the integument appear to have been of late, not only very abundant, but very widely spread; and we cannot help considering the affection of the osseous system under discussion as bearing a close relation to them, and probably dependent on the same epidemic causes. Even if Rokitanski's assertion be true, which is, we think, rather dubious, that the "core" formed in such cases is not a slough but an inflammatory exudation, still the occurrence of sloughing of portions of the skin and cellular tissue has been sufficiently often associated with its separation to prove the essential nature of the complaint.

There are probably but few questions on which the Profession are more nearly unanimous—if not in theory, at least in practice—than that the present prevailing type of disease is one characterised by deficiency of vital energy. Most inflammatory affections have exhibited a remarkable tendency to the production either of death of parts, of the rapid pouring out of serous, purulent, or lowly organised effusions, or of sudden general prostration of the vital powers. Many cases of necrosis, which have lately fallen under our notice, might, with justice we believe, be considered as examples of this pathogenetic disposition.

Case 1.—The first to which we have to allude is the case of a young man lately under the care of Mr. South, from whom was removed a very large portion of the right femur. The necrosis had followed an

amputation of the thigh, in which the bone was sawn through in the lower third. The flaps united favourably in all parts excepting the centre, but the stump became swollen and the seat of much pain. In a little time it was evident, from the continued and profuse discharge from around the end of the bone, that the death of a portion had taken place. Mr. South deferred the attempt to remove it until all acute symptoms had subsided and the man had gained a robust degree of health. The operation consisted in exposing the extremity of the shaft of the bone by dissecting away the soft parts. This done, it was seen that the whole ring of bone was in a white and necrosed condition. Mr. South laid hold of it with strong forceps, and attempted to drag it out; notwithstanding, however, that it was quite movable, its removal was found to be impracticable until by a sudden twist the bone had been broken into two parallel halves, after which the separate portions were easily extracted. Placed together they formed a cylinder of nearly eight inches long, and had evidently involved almost the entire shaft of the bone left after the amputation.

Case 2.—The following case is interesting on account of the great difficulties which necessarily attended the operation:—William Hollis, aged 16, a stout country lad, was admitted, under Mr. Simon's care, on April 27, 1852. It appeared that he had received a severe blow on the left thigh two years previously, as a consequence on which acute inflammation of the bone took place. Within a few weeks of the accident a large abscess, which pointed in the upper and inner part of the thigh, had to be opened, and the pain, suppuration, etc., were so great that for eight months he was confined to bed. When admitted into the hospital he could walk about with ease, and had quite regained his health. Around the whole femur there was a very great degree of bony enlargement. Two fistulous ulcers communicated with the dead bone, the one situated on the inner aspect of the upper third of the limb, the other on its front, about four inches above the patella. *A line drawn between these two crossed the course of the femoral artery.* A probe introduced at the upper one could be passed down very nearly to the knee, touching dead bone throughout the whole length of the canal. The bone appeared to be firmly fixed; and from this, as well as from the fact, that some inflammation still existed, Mr. Simon thought it best to defer attempting any operation. During the following month the lower ulcer took on a very unhealthy appearance, and began to slough and enlarge rapidly. The strong nitric acid had to be applied more than once; and, after a time, it again became covered with healthy granulations, and partially cicatrised.

On December 4th, Mr. Simon determined to attempt the removal, either of the whole or of some portion of the necrosed bone. When the patient was brought into the operating theatre, Mr. Simon stated, that he had never been able to satisfy himself that the bone was detached; but, from the length of time which had elapsed since the injury, and the completeness of the shell of new bone which had formed, he thought it very probable that it would be found to be so. He directed attention to the position of the femoral artery in relation to the bone to be removed, as constituting a source of difficulty and danger in the performance of the operation. Notwithstanding these circumstances, the drain on the boy's constitution involved in a continuation of the present state of things was, he thought, such as to well warrant immediate interference. We shall have to see that the result completely justified this reasoning.

Chloroform having been administered, Mr. Simon made a long oblique incision, commencing at the lower ulcer, and passing upwards and outwards; and another from the same point, directly outwards, and dissecting back the skin and subjacent parts, exposed the new bone. A large cloaca was found, into which the forefinger easily entered, and, passing down by the side of a large piece of dead bone, appeared to go into the inner condyle. With the bone forceps this opening was enlarged; but, on attempting to extract the sequestrum, it was found necessary first to divide it into two by means of Hey's saw. This done, some large portions of rugged, worm-eaten bone were extracted, and, after them, several less ones, the forceps being throughout frequently used for the division of portions too large to be removed entire. After the operation, these fragments, when fitted together, appeared to have composed almost the entire shaft of the femur. The wound was closed by means of wet lint, several small vessels having been ligatured in the course of the operation.

About a month afterwards, the wound having in the mean time progressed very favourably, Mr. Simon drew out of it two or three small spiculæ of bone with dressing forceps. There is still a very free suppuration from the lower sinus, and it is possible that some small portions may yet have to come away. The swelling of the limb has much diminished, and the lad's health improved.

THE LONDON HOSPITAL.

NECROSIS OF THE HUMERUS FROM INJURY.—AMPUTATION AT THE SHOULDER-JOINT.—RECOVERY.

[Under the care of Mr. CURLING.]

The following case well illustrates the influence of the so-called strumous diathesis in aggravating the results of but trivial accidents into diseases of the most severe and dangerous character. Mr. Curling's patient was a stout little boy, 10 years old, red haired, of a remarkably thin and transparent skin, and having a thick upper lip and tumid alæ nasi. He might, in fact, have afforded a good example of the fair-complexioned form of struma. His parents were in comfortable circumstances, and he had lived well. A fortnight before admission, in October, 1852, during a quarrel, his younger brother gave him a smart blow over the left shoulder with a broomshaft, which occasioned at the time very acute pain. On the following day there was much swelling, and on the fourth day it had increased to such an extent that a surgeon was consulted. In spite of the measures employed, the tumefaction continued to spread, and involved the whole arm; the pain also became extreme. On admission, the skin was tense, and of a bright erysipelatous redness. For the relief of tension, and to allow of the escape of deep-seated matter, several pretty free incisions had to be made. A poultice was applied to the part, and, to enable the constitution to bear up against the severe disturbance which existed, a liberal diet was allowed, with the addition of quinine and wine. A third of a grain of morphia was exhibited as a night-dose. Notwithstanding these measures, however, it soon became evident that the vital powers were sinking, and, at the expiration of another fortnight, it was clear that nothing but the loss of the limb could be expected to preserve life. Mr. Curling accordingly performed amputation at the shoulder-joint in the usual method. Scarcely any blood was lost, and the flaps were afterwards brought into apposition with great care. They united very favourably, and nothing could have been more pleasing to the operator than the after-progress of the case. The boy, who, previous to the operation, had been, by severe pain and profuse suppuration, reduced to a state of extreme weakness, rapidly regained his health, and had, previous to leaving the hospital, become nearly as stout and florid as ever. Examination of the removed member disclosed what, from the acute inflammation of the parts, it had been impracticable to search after previously,—a fracture of the neck of the humerus. Throughout almost its entire length the shaft of the bone was denuded of periosteum, and surrounded by a collection of pus. The periosteum itself was very vascular, and much thickened. No new bone had formed, nor was there any line of separation between the living and dead portions.

ST. MARY'S HOSPITAL.

PHAGEDÆNIC ULCERATION.—NECROSIS OF TIBIA, EXTENDING INTO THE ANKLE JOINT.—AMPUTATION. DEATH.

[Under the care of Mr. COULSON.]

Charles King, aged 33, a stableman, usually in the enjoyment of good health, but accustomed to live freely, was admitted Nov. 12, 1852. For eight months previously he had suffered from an ulcer, at first produced by a kick over the right shin, which two months ago began to enlarge considerably by sloughing at the edges. At the time of admission, there was an irregular and very unhealthy looking sore commencing three inches above the internal malleolus, and measuring five inches in length by four in breadth. He suffered very severe pain in the ankle, independent of the ulcer. He looked ill, and his sleep had been much interfered with.

Nov. 29th.—Since last date the ulcer has been dressed with Tinct. benzoin co., under which its edges have assumed a more healthy aspect. In its middle, however, several inches of the tibia have become exposed, and are dry, and of a mottled grey and white colour. Matter may be pressed out from each side of the bone, but pressure on the latter does not move it. He takes seven grains of pil. sapon. cum opio twice in the day. The discharge is very copious, and he is losing flesh and strength.

Dec. 9.—An incision having been made by Mr. Coulson behind and below the internal malleolus, a considerable quantity of fetid pus escaped. The patient is very feeble; sweats profusely at night; has a weak and small pulse, at 118, and presents altogether a very unpromising appearance. The middle three-fifths of the tibia are now exposed, but still firmly fixed. The bone is white, roughened, and somewhat resembling pumice-stone. The ankle and foot are

swollen, and of a purplish sublivid appearance,—the latter is frequently very cold. In spite of a very generous diet, and the free use of stimulants, he is declining in strength; and it seems pretty evident that if nothing further be done, the disease must prove fatal. Mr. Coulson has recommended him to submit to amputation, but he wishes to wait a few days longer.

11th.—Having consented to lose his leg, Mr. Coulson performed amputation in the lower third of the thigh, making the posterior flap first in the ordinary way, and cutting the anterior one from without inwards, and dissecting it backwards. Although the patient had lost but three ounces of blood, and that chiefly of a venous character, yet he appeared faint and much exhausted at the conclusion of the operation, which had, however, occupied only a very short time. Some wine was administered as soon as the effects of the chloroform had passed off. For an hour or two, however, he continued in a condition of great prostration, with a weak and fluttering pulse, but after the administration of some brandy and landanum he rallied; and in the evening a gentle re-action appeared to be established. During the first week after the operation he suffered much constitutional disturbance: there was a profuse and very offensive discharge from the stump; the edges of both flaps sloughed, but only superficially, and to a small extent. Large quantities of stimulants were allowed him, together with repeated doses of opium.

On the 20th he had very much improved; the tongue was nearly clean, and appetite good; the sloughs had almost separated, and the discharge was much less fetid than before. Pulse, 104.

After the date of the last note he made much improvement; the stump, with the exception of the part immediately over the end of the bone, healed. A considerable suppuration was however still kept up around the bone, which was exposed and denuded. About the middle of January he began to display indications of increasing debility, and his appetite, which had previously been good, failed. From this time he rapidly sank, and died, apparently of mere exhaustion, on the 17th inst. The autopsy did not reveal any important disease of internal viscera, and the portion of the extremity of the femur which had necrosed was small, and might, had he survived, have been very easily removed.

At the examination of the amputated extremity, immediately after the operation, a very large surface of the tibia was found denuded of periosteum, and, in many other places, that membrane adhered very slightly. No distinction could be perceived between the dead and living bone; indeed, the whole appeared to be either dead or in process of becoming so. The necrosis had involved the lower articular extremity; the ankle-joint containing much unhealthy pus, and the articular surface of the astragalus being rough, and denuded of cartilage.

We are indebted to the notes taken by Mr. Bullock, the house-surgeon, for the particulars of this case. The form of necrosis illustrated by it is one of rather rare occurrence, and we suspect evidences an extreme degree of deficiency of vital energy. The constitution appears to be unable to fix a bound to the encroachments of disease, which accordingly spreads on to parts not usually affected. The cancellous ends of bones are, it is well known, not often involved in necrosis, yet they were in the instance before us. The ulceration of the skin also was phagedænic in its character. We have seen that necrosis again attacked the bone of the stump, and that the patient ultimately died under circumstances from which most would have rallied, all of which considerations support the conclusion, that the first disease was an evidence of extreme ill health. Very possibly, if he had submitted to amputation at the time Mr. Coulson first proposed it, the final result might have been different.

ROYAL LONDON OPHTHALMIC HOSPITAL.

MEDULLARY CANCER OF THE EYE.—REMOVAL OF THE GLOBE.—RECOVERY.

[Under the care of Mr. BOWMAN.]

Of the two cases of soft cancer within the orbit which we reported a few weeks ago, our readers will remember, that in one the disease had commenced and run its course external to the eye itself, and in the other, although it had probably begun in that organ, yet it had, before the operation, invaded all the surrounding parts; in both, the whole orbit was filled with the soft brain-like mass. Now, we need scarcely remark, that a very broad distinction, in respect to the hopefulness of operations, exists between advanced cases of this description and the class of which the one we are about to detail is an example, in which the deposit, though of identical character, is confined to the eyeball. In the latter, the entire growth is removed with almost certainty that none is left behind; while in the former it is all but impossible to extirpate every particle. Were cancer a disease of purely local origin, there are no examples of it which should succeed better after operations than those in which the deposit is confined within the eye, surrounded as it there is by a dense fibrous envelope, which securely shields the neighbouring parts from contamination. Yet there are, in fact, no cases which more certainly relapse.

Respecting the nature of those influences which predispose to its occurrence we know nothing whatever. The facts, that it sometimes manifests itself in several children of the same family, and also occasionally attacks both eyes in the same subject, very plainly point to a severe *constitutional* proclivity. The subjects are, however, frequently remarkable for their healthy aspect. Dr. Mackenzie has asserted, on the other hand, that they are usually of a markedly strumous habit; but the statement is, we believe, very slenderly supported by facts.

William Criekwell, a stout child of fair complexion, aged two years and a quarter, was admitted, under Mr. Bowman's care, on June 29, 1852. When ten months old, his mother had observed that he began to squint, and that deep in the left eye was a whitish speck visible; and soon afterwards, she had found that the eye was blind. He was at the time in robust health, and continued to thrive remarkably well until within the last month. He had appeared to suffer pain in it, having been frequently observed to hold his head. His mother had noticed for about six weeks that the eye protruded a little from the socket, during which his nights had been disturbed, and he had lost flesh. Both parents and his only brother were in excellent health, and no history of hereditary tendency either to struma or to cancer could be established. On looking into the eye through the widely-dilated pupil, there was readily seen a yellowish vascular growth, which appeared to advance from the deep parts nearly half way to the lens, and presented an irregular nodulated surface. The whole globe was tense, tender, and slightly enlarged; its humours were clear, but of a yellowish tint.

On September 20, it was noticed that one of the most prominent parts of the growth could be made to jog about by moving the child's head.

October 26.—It was seen that the growth had reached the posterior part of the lens, and the pupil was so much dilated that scarcely any iris could be seen. The globe was decidedly more enlarged, and the child had suffered more pain; he appeared also to be losing flesh, though still of more than average stoutness. Hitherto only palliative measures had been resorted to; but as, from the tension that the globe had now assumed it was plain that it must soon burst, Mr. Bowman conceived that the time had arrived when it was unadvisable longer to defer the operation. The consent of the parents having been obtained, and the small probability of a permanent cure resulting having been duly explained, the extirpation of the globe was accordingly performed, on

November 16.—Chloroform was first administered to complete insensibility, and Mr. Bowman then commenced by enlarging the palpebral aperture by a notch half an inch long in the external commissure. The ocular conjunctiva was then divided all round the eye by means of scissors and forceps, and the recti muscles were next snipped through, one by one, close to their attachments to the globe. The eye now loosened was held forwards by the forceps, while with the scissors Mr. Bowman continued the division of the oblique muscles, the cellular tissue in immediate connexion with the globe, and ultimately the optic nerve itself. After this the eyeball was very readily removed. Scarcely any blood was lost either during or after the operation. A plug of wet lint was laid in the hollow which had been made, the edges of the incision in the eyelids were brought together by a single suture, and the child sent to bed.

The child slept well the next and all subsequent nights, not a single unfavourable symptom followed, and there was but very little swelling of the lids. He was discharged from the hospital about a week after the operation, and soon began to exhibit marks of improvement in his general health. The parts rapidly healed. When last seen, January 11, 1853, he was in high health and spirits, and no indications of a return of the disease could be detected. It is of course to be feared, however, that a return will hereafter take place.

Examination of the Eyeball.—The trunk of the optic nerve had been cut through very near to the eye; at the point of section it was firm and appeared to be of normal size. The eyeball itself was of a long, oval shape, being much elongated from before backwards; in the front its tunics were quite sound, the sclerotic was whole in all parts, but in two distinct spots on the posterior part, each about the size of a split pea, it was thin, bulging, and as if on the point of giving way. On dividing the globe into two lateral

halves it was seen to be two-thirds filled with a medullary growth, which, springing from the bottom of the eye between the choroid and sclerotic, had grown forwards, pushing the former before it. Its front surface, which was almost level, exhibited a thin but very distinct layer of choroidal pigment, a fold of which, at the circumference of the growth, dipped down for a short distance between it and the sclerotic. No trace of the optic nerve was visible at its point of expansion, and here as well as in all other parts excepting, as has been seen, its anterior margin, the mass adhered firmly to the sclerotic. About the middle of the front surface of the growth, the layer of choroid had been ruptured, and the protrusion of a soft, half-flocculent fungus, had taken place, which reached to the lens.

Examined with the microscope, the juice of the growth was found to contain large round cells, with granular contents, and from one to three well-defined nucleolated nuclei.

We introduce the accompanying diagram 1, for the purpose of better illustrating the relations sustained by the morbid mass to the tunics of the eyeball. From the close manner in which it is united to the front of the sclerotic and back of the choroid, it is of course impossible to say that it did not originally grow from one of those structures; yet, taking into consideration the fact, that, almost invariably, the first appearance of such growths is in the bottom of the eye, the conjecture, that the optic nerve, just before its expansion, was the part first affected, seems rather more probable, since, whilst equally possible, such an origin would be more in keeping with what has been observed in other cases. The Hunterian preparation, from which diagram 2 has been constructed throws some interesting and important light on this question. A globose medullary tumour (A) is seen springing from the optic nerve, and carrying before it the retina and choroid (c and r), by which it is separated from a yet larger growth (B) of the same structure, which appears to grow out from the same point, only a little further back. This second growth is in immediate apposition with the sclerotic, but does not adhere to it. On the left side is another narrow layer (C) of the same morbid deposit within the layers of the sclerotic, quite distinct from the others, but possessing with them *a common origin from the optic nerve.*

Fig. 1.

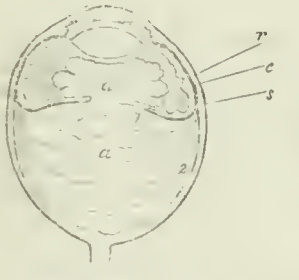
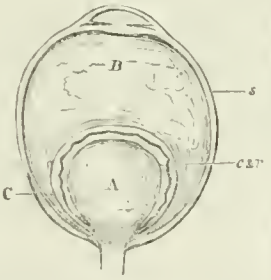


Fig. 2.



A—Medullary mass, filling the back of the globe, covered in front by a layer of the choroid and by the retina, except where it bulges through these tunics up to the lens; c—the choroid, which, traced backwards, splits into —1, a brown layer in front of the tumour; and, 2, a brown layer continued for some distance backwards between the tumour and sclerotica; r, retina, thrown into folds, and continued in front of the tumour; s, sclerotica.

It is a fact full of strange interest, as bearing on the natural history of malignant diseases, that when medullary cancer does occur in infancy it affects almost invariably the parts within the orbit, in which in adult life it is much more rare. Respecting the exact structure primarily affected, various opinions have been broached, and all supported apparently by the results of dissections. Mr. Travers asserts, that, with the exception of the cornea and lens, it may originate in any of the parts of the eye, and states that he has seen it in the layers of the sclerotic. In the case we have related, it evidently began between the choroid and the sclerotic, or, in Mr. Bowman's opinion, in the outer region of the choroid. In some instances the choroid itself has been split into layers by the infiltration of the growth into its substance; and in others again, as in one of the cases previously alluded to, the disease has commenced external to the globe. It may be doubted, however, whether these facts are so conclusively in favour of the doctrine that the preference manifested by malignant growths is for locality rather than tissue, as at first sight they seem to be, and whether, in fact, differences in the direction of after-growth have not too hastily been set down as differences of original seat. There are, we suspect, but few cases in which the evidence is conclusive, that the beginning of the affection did not take place in the optic nerve, either within or without the coats of the eyeball,—a centre from which it is easy to see that it might have grown in very various directions.(a)

We cannot dismiss this case without saying a few words on the very improved method of operating which Mr. Bowman adopted, and which was employed by Mr. Critchett at this hospital during the last summer. By first carrying the scissors round close to the globe, so as to divide the recti muscles at their attachments, the eyeball was deprived of its only important supports, and its removal was effected with great ease, almost without bleeding, and without any of that disturbance of surrounding parts which is necessarily attendant on the ordinary mode of cutting round it with a scalpel. The use of the scissors only is also attended with another advantage, that the danger, however slight, of thrusting the point of a knife through the roof of the orbit is altogether avoided.

CENTRAL LONDON OPHTHALMIC HOSPITAL.

ADAPTATION OF AN ARTIFICIAL EYE,

IN A CASE IN WHICH THERE WAS LOSS OF THE EYEBALL, LOSS OF A PORTION OF THE OUTER WALL OF THE ORBIT, AND INJURY TO THE INTEGUMENTS OF THE CHEEK, PRODUCING ECTROPIUM OF THE LOWER EYELID.

[Under the Care of Mr. HAYNES WALTON.]

THE very limited use of artificial eyes is certainly to be wondered at, and is most probably due to a lack of knowledge of the benefits they may confer; for improvement of personal appearance is not the only advantage derivable from them.

After the eyeball is collapsed, entropium may ensue, and the contact of the cilia with the conjunctiva may be productive of much distress; the lachrymal secretion may also fall over the cheek, because it cannot reach the puncta, and thus prove very annoying. Besides the above, particles of dust falling on the conjunctiva, when it is permanently exposed, may cause a constant state of inflammation, with purulent discharge, and the sound eye may sympathise with this inflammatory affection. All of these are positive evils, that can be removed by the wearing of a false eye.

This class of cases falls for the most part under the hands of the surgical mechanist, and he can effect all that may be accomplished, so long as the eyeball is a little reduced, and the palpebral appendages are in their integrity; but, when the eyeball is enlarged, or the eyelids more or less adherent, or in any way distorted, operative surgery is needed before an artificial eye can be properly adapted. It is the intention of the present report to afford an illustration of what may frequently be done in the way of preparing a collapsed eyeball for the reception of its artificial substitute.

By the bursting of a gun a man lost the right eyeball, a part of the outer wall of the orbit, and some of the skin of the cheek. The cicatrisation on the face consequent on the injury, produced a well-marked ectropium of the outer portion of the lower eyelid, and, besides, pulled the upper eyelid considerably downwards, and threw its cilia on the conjunctiva resting on the floor of the orbit. The deformity was necessarily very great, but that was concealed by a green patch; and the patient's application to the hospital was for the purpose of obtaining relief from the annoyance occasioned by the constant discharge of tears over the cheek, and the irritation produced by the contact of the cilia with the conjunctiva.

An artificial eye was placed between the lids, in the best way possible, to give an indication of the kind of operation required to restore the lids to their proper places, and allow the full benefits that the use of such an eye well fitted, might afford.

This having been ascertained, Mr. Walton left it to the patient to decide, whether that description of operation should be done which would enable him to wear the false eye, by which, most probably, the lachrymal secretion would be carried away through the natural channel, (this, of course, depending on the degree of accuracy with which the edges of the lids could be brought to bear on the surface of the enamel,) and his countenance also improved; or, whether the lachrymation alone should be attended to by the removal of the lachrymal gland. He was also given to understand, that in case the first operation failed to arrest the discharge over the cheek, the lachrymal gland might then be extirpated. The first proposition was preferred.

Mr. Walton proceeded to operate in the following manner:—A wedge-shaped piece, including skin, muscle, cartilage, and conjunctiva, was removed with the scalpel from the most everted por-

(a) We shall hereafter give the details of a most interesting case of melanosis of the eyeball, in which Mr. Bowman has recently removed the globe, and where, we think, there is satisfactory proof that the disease commenced in the choroid,—certainly not in the optic nerve.

tion of the lower eyelid, and the skin of the cheek around dissected from its attachment, so as to admit of being drawn up and transposed. The divided lid was united by sutures, and the whole raised and supported by strips of plaster. By this, the ectropium was entirely removed, and the edge of the tarsus brought nearly to a straight line. The upper lid being now relaxed, the levator palpebræ acted, and the cilia were raised from contact with the conjunctiva. In a few days, the sutures and the plasters were taken away. Three weeks later the false eye was applied, and the expectations of Mr. Walton fully realised. It has now been worn for some weeks, and the tears pass by the natural conduits. The mere button on which it rests is, however, too small to be influenced by the recti muscles, and the eye consequently does not move in unison with the natural one; but, nevertheless, the patient and his friends consider that a very great improvement as to personal appearance has been effected.

LIST OF SCIENTIFIC MEETINGS.

This Evening, Jan. 29.—Royal Institution.—*Subject*:—"On the Philosophy of Chemistry." By Professor A. Williamson. Three o'Clock.

——— ——— Medical Society of London.—*Subject*:—"On the Proximate Cause of Insanity." By Dr. Davey. Eight o'Clock.

Monday, January 31.—Royal Institution.—*Subject*:—"On Organic Chemistry." By Dr. A. W. Hofmann. Four o'Clock.

Tuesday, February 1.—Royal Institution.—*Subject*:—"On Animal Physiology." By T. Wharton Jones, Esq., F.R.S. Three o'Clock.

——— ——— Pathological Society of London. Eight o'Clock.

Wednesday, February 2.—Royal Institution.—*Subject*:—"On Organic Chemistry." By Dr. A. W. Hofmann. Four o'Clock.

Thursday, February 3.—Royal Institution.—*Subject*:—"On the General Principles of Geology." By J. Phillips, Esq. Three o'Clock.

——— ——— Harveian Society.—*Meeting of Council.* Half-past Seven o'Clock.

Friday, February 4.—Royal Institution.—*Subject*:—"On the Results of Recent Calculations on the Eclipse of Thales, and other Eclipses connected with it." By the Astronomer Royal. Half-past Eight o'Clock.

——— ——— Western Medical and Surgical Society.—*Meeting of Council.* Seven o'Clock.

Saturday, February 5.—Royal Institution.—*Subject*:—"On the Philosophy of Chemistry." By Alexander W. Williamson, Ph. D. Three o'Clock.

——— ——— Medical Society of London. Eight o'Clock.

Medical Times & Gazette.

SATURDAY, JANUARY 29.

THE GENERAL PRACTITIONERS AND THE NEW MEDICAL REFORM BILL.

It is our misfortune to disagree with some of our Contemporaries upon the merits of the New Medical Reform Bill, proposed by the Provincial Medical and Surgical Association. But, while fully admitting the right of every person to challenge or disagree with our opinions, we must enter our protest against being misrepresented. We are accused by one of our weekly brethren of the medical press, of having "printed some remarks against the measure that were absurdly ill founded in their nature," and of having "appealed for correspondence in support of our views."

That we have printed some remarks against the measure, is perfectly true, and we shall presently show how far our observations were well founded; but we must first dismiss the charge of having appealed for correspondence in support of our opinions.

The facts are, that, on the 4th of December of last year, we printed at length the Draft Amended Bill prepared by the Provincial Association, and we at the same time drew attention to the measure in a leading article; but that article merely pointed out the general features which characterise the educational and examining bodies in this country, and carefully abstained from offering any opinion whatever upon the merits or demerits of the Bill, which we believed was, at that time, as new to us as to most of our professional brethren, and therefore we did not feel ourselves justified in pronouncing a decided opinion. The article concluded with these words: "In the meantime, we place the Bill of the Provincial Medical Association before our readers, and invite the opinions of the Profession upon its merits."

This can be the only foundation for the charge that we have appealed for correspondence *in support of our views*; whereas we had, in fact, offered no views at all, but had made the subject an open question. The letters which reached us upon the subject, were couched in terms of feeble commendation mingled with great dissatisfaction, and we learned from competent sources that the Bill was by no means unanimously approved, even by its own authors, and that, in some parts of the provinces, it had met with decided opposition. In addition to this, the Bill had undergone material changes since its first promulgation at Oxford. Finding, therefore, that the Bill was faintly advocated by some, decidedly opposed by others, and received with total apathy and indifference by the great bulk of the Profession, and fearing that if such a Bill were allowed to pass into a law in its present form, incalculable injury would be inflicted upon the General Practitioners of England, we deemed it expedient to point out clearly the radical defects under which the new measure laboured, and to warn the Profession of the danger which threatened their interests if it were allowed to slip through the Legislature.

Accordingly, on the 18th of December, a leading article was given, in which our objections were strongly, but we believe fairly urged; and we had the gratification of finding that our efforts were warmly responded to in various influential quarters; and, indeed, while our article was in type, we received, and afterwards printed a letter, embodying several of the objections which had occurred to ourselves.

As our views have so recently appeared, it is unnecessary to repeat them. It is sufficient to state, that, after a careful reperusal of the article in question, our opinions are wholly unshaken. The fundamental defect of the Bill is, that it ignores all representative government on the part of the Profession; it places the ruling power in the hands of the Universities and the Colleges, none of which have ever shewn the slightest sympathy with the cause of the General Practitioners. It is true, that six "Medical Practitioners" are to be added as a kind of makeweight to counterbalance the influence of the Presidents of Colleges, Regius Professors of Universities, and Physicians and Surgeons; but the Bill does not tell us what qualification these "Medical Practitioners" are to possess, as distinguished from the physicians and surgeons. It does tell us, however, that they are to be chosen by the "Secretary of State." The whole of the Council would, therefore, consist of nominees of the Crown, of the Universities, and of the Colleges; and all chance of emancipation for the General Practitioners would be lost.

In the remarks which we formerly made, we imputed none but the purest motives to the originators of the Bill, and we impute no sinister objects to those who may now support it; but we distinctly affirm, that such a Bill is unworthy of the acceptance of the General Practitioners of the

nineteenth century. For the last fifty years, that extensive and influential section of the Profession have been honourably struggling for an independent position. Without any corporate connexion with Colleges or Universities (by which, indeed, they have uniformly been repudiated), they have acquired the respect and confidence of the public; and we maintain that they are entitled to a voice in the management of their own affairs. The chemists and druggists, when forming themselves into a corporation, lately declined the proposition made to them of introducing the members of the Medical Profession into their internal management, on the ground that the members of the corporation were themselves the best judges and the best directors of their own affairs; and inasmuch as the General Practitioners of this country have attained a proud position without the assistance of the University of Cambridge or the University of Oxford, the College of Physicians or the College of Surgeons, we conceive that they can still prosper without the fostering care of those august bodies.

We beg distinctly to disclaim any intention of decrying or undervaluing the time-honoured institutions to which we have just referred. On all appropriate occasions, we shall assert their claims to the respect of the community; but *quoad* the General Practitioners of England, the Colleges and Universities are entitled to no gratitude, and, as far as we know, have never claimed any. To render up to these authorities the liberties of the Profession, would be to commit a suicidal act on the part of the General Practitioners, and to set the seal for ever to their own degradation.

YELLOW FEVER.—DR. WARBURG AND THE MAIL PACKET COMPANY.

In 1849, a Dr. Warburg visited London for the purpose of selling to the inhabitants of England and its dependencies little bottles of a nostrum called "Tinctura Warburgii," or Dr. Warburg's Vegetable Fever Drops. Like other proprietors of secret remedies, or quack medicines, as they are commonly called, Dr. Warburg entered into an arrangement with a commercial man, in order that the nostrum might be brought in the most prominent and tradesman-like manner before the public. It was to be sold for the purpose of gain, price 5s. a bottle. A shop for the sale of the stuff was opened in the Strand, and a large sum spent in advertising it. Pamphlets were published, containing testimonials to its virtues, from numerous foreign nobodies. Dr. Warburg's vegetable drops were declared by their compounder to be a *specific*, a cure for typhus fever in all its forms, for yellow fever, intermittent fever, obstructions of the hepatico-gastric system, rheumatic fevers, cardialgia, neuralgia, colic, acidity of the stomach, and pituitous eructations of confirmed drunkards,—in fact, wherever nervous influence was below par, or wherever it was above the standard of health,—in depression, and in excitement, or wherever a crisis had to be established, then Dr. Warburg's vegetable drops were "the remedy;" at least so said Dr. Warburg. We understand, however, that when Dr. Warburg's partner, a tradesman in the Strand, had expended 3000*l.* in advertising "*the remedy*," he became dissatisfied with the Doctor, and most anxious to be loosed from the connexion, and, after much trouble, he procured a release. At this time Dr. Warburg had, or professed to have, in England, the ingredients for 3,000,000,—yes, three millions of bottles of his nostrum, price, be it remembered, 5s. the bottle. Further advertisement was out of the question. Dr. Warburg is a diplomatist; he procured introductions to a considerable number of hospital physicians, and persuaded some of them to try this advertised secret remedy. In the *Medical Times* for 1851 are several articles strongly condemnatory of the conduct of these gentlemen. The effect of these strictures was the ejection of the nostrum from the wards of our hospitals. However, by some means or other Dr. Warburg gained the ear of the Directors of the Mail Packet Company, and the result is, that they have recently sent him to administer his vegetable drops to those suffering from yellow fever in their vessels at Southampton. We ask these Directors if they sought the advice of competent authorities before entrusting the proprietor of the vegetable drops with the lives of those for whom they are bound to provide medical aid?

For the benefit of these gentlemen we will tell them the result obtained by the employment of Warburg's Vegetable Drops in England:—

1. That they are of no service in the treatment of any form of typhus fever. For the truth of this statement we could adduce the evidence of a gentleman who tried them on a large scale.

2. That in those diseases, ague for example, in which quinine is a specific, these drops are useful, but no more so than quinine.

The following extract from a letter, addressed to Dr. John Davy by a friend in Demerara, and published in the *Medical Times* of Oct. 18, 1851, explains in some measure the reason of the close resemblance in action between quinine and Warburg's Vegetable Drops.

"I mentioned in my last that, in my opinion, and that of several others, Dr. Warburg's Drops are quinine dissolved. The disguise is supposed to be tincture of aloes, sulphuric ether, and camphor. This opinion of the basis of the drug being quinine is not founded on chemical analysis of it, but chiefly from the fact, that, at the time he was publishing the rare merits of his drug over every other febrifuge, he was purchasing from the druggists here large quantities of quinine. In one case, which I will presently relate under the most suspicious circumstances, a little girl came to the drug-shop of Mr. Cross and asked to buy eight ounces of quinine, for which she had the money. Mr. Cross was surprised at the magnitude of the quantity asked for, and inquired whence she came. The girl said she was not allowed to tell, but Mr. Cross's curiosity being excited, he sent a servant after her, who traced the girl to the residence of Dr. Warburg."

Comment on this is needless.

ST. THOMAS'S AGAIN!

We fear that our remarks touching the late proceedings at St. Thomas's Hospital have not been received by the authorities of that Institution so kindly as they were meant. But ours is an "o'er true tale;" and that same rumour which ascribed to the Treasurer a desire to damage the usefulness of the hospital, by rendering its Medical Staff numerically insufficient and personally at variance, now hints at a motion, to be matured under the auspices of a secret conclave, namely, that every member of the Medical Staff is to be annually re-elected, and to cease to hold office at the age of sixty. We are told that to this an amendment is to be proposed; namely, in place of "member of the Medical Staff," insert the word "Treasurer." Perhaps such an amendment, if carried, would arrest these unhappy differences, which render the name of St. Thomas's a byword even among those who wish her prosperity. We will take the earliest opportunity of communicating to our readers the next scene in this eventful performance.

POOR-LAW GUARDIAN LIBERALITY.

We copy from the *Times* newspaper of last week the following paragraph:—

"A Parliamentary paper has just been printed respecting the Tewkesbury Union. The Board of Guardians carried resolutions to reduce the salaries of the several officers, on account of the 'cheapness of provisions.' The officers appealed to the Poor-law Board, and the reasons were required from the Guardians that induced them to pass the resolutions. They urged that the value of agricultural produce had been diminished at least 30 per cent., that the rates had decreased, and that food was cheap. The Poor-law Board replied, that they had 'never recognised the principle that the price of the articles and of the produce referred to are to be the criterion by which the amount of salaries ought to be estimated and regulated, or that such salaries should be liable to vary as the price of food fluctuates.' The Poor-law Board thought that no sufficient reason had been assigned for the reduction, declaring that the fixed salaries of the medical officers remunerated them only for their ordinary duties, and the Board did not see that sufficient grounds had been adduced for diminishing the salaries of either of the officers referred to in the resolutions of the Guardians."

The Poor-law Board have, in this instance, given a very proper rebuke to these hucksters of Tewkesbury; and we believe that the time is not far distant when the position of the members of the Medical Profession will be such as to command a proper remuneration for their arduous duties in attending on the poor, and place them above the control or interference of Poor-law Guardianship altogether.

THE SUDDEN DEATH OF DR. PEREIRA.

With feelings of deep regret we have to inform our readers of the sudden decease of this much-respected gentleman, so well known to the Profession, both at home and abroad, as the author of the best work on the Materia Medica that has ever been published. It appears that about a month since he slipped down the stairs of the Hunterian Museum at the College of Surgeons, and ruptured the recti muscles of both legs. This accident confined him to the bed and sofa, but he was progressing favourably, until the night of Thursday the 20th instant, when, about half-past nine in the evening, he was suddenly seized with great pain in the region of the heart. Some medical friends were immediately in attendance upon him, but all their efforts proved unavailing, and Dr. Pereira expired in about twenty minutes from the time of the attack. It is supposed that the immediate cause of death was rupture of the heart, but this cannot be positively stated, as we believe no *post-mortem* examination has been permitted. The funeral took place on Thursday, the 27th inst., in Kensal-green Cemetery, the deceased being accompanied to his last resting-place by a large number of relatives, friends, and pupils. We intend, in our next Number, to present our readers with a memoir of the gentleman whose loss we so deeply deplore.

DEATH OF DR. GEORGE GREGORY.

This distinguished author and physician died after a severe illness, on Wednesday, the 25th inst. He was well known to the Profession and to the public as the Physician to the Small-pox and Vaccination Hospital, as a Lecturer on the Practice of Medicine at St. Thomas's Hospital, and as the author of treatises on the theory and practice of medicine, and on eruptive fevers, as well as of several papers which have from time to time appeared in the "Transactions" of the Royal Medical and Chirurgical Society, and in our own columns. His first work has been so highly appreciated, that it has not only gone through six editions in this country, but has been most favourably received in the United States of America, and in our East Indian territories, and is still used as the text-book of most of the Army medical officers.

REVIEWS.

The Modern Practice of Physic. By Robert Thomas, M.D. Eleventh Edition. By Algernon Frampton, M.D. Cantab., Physician to the London Hospital. In two Volumes. London: Longman, Brown and Co. 1853.

"Thomas's Practice of Physic" has very long been known as a text-book for the student and the practitioner. The clearness of the descriptions of disease, the sound principles of treatment, and the abundant formulæ given for the administration of medicines, have contributed in no small degree in former days to influence the practice of physic, not only in this but in other countries. The work has gone through several editions in America, and has been translated into the French language. The tenth English edition was published when Dr. Thomas was in his eighty-second year; and after his death the proprietors entered into an arrangement with the late Dr. Algernon Frampton for the preparation of a new and thoroughly revised edition. It is well known, however, that Dr. Frampton died in December, 1851, at which period one volume of the present work was completed, and a considerable part of the second was ready for the press. After Dr. Frampton's death the completion of his intended labours was entrusted to some of his professional friends, all of whom, with one exception, were connected with the London Hospital. We accordingly find that Dr. Herbert Davies has revised some of the articles upon diseases of the chest, as well as some others relating to the skin, the teeth, and the liver. Dr. Parker has written the article on insanity; Mr. Critchett has contributed some articles on surgical matters; Mr. Wordsworth, among other subjects, has prepared the articles on the Urinary Organs and on Cancer; Dr. Henry Powell has revised the sections on the Diseases of Women; and the article on Poisons, which was left in an unfinished state by Dr. Frampton, has been completed by Dr. Letheby. The proprietors, in their preface, express their belief "that the work, in its now very improved state, will continue to merit the approbation of the different members of the Medical Profession, while it may also prove a proper and safe guide to the clergy, and other heads of families residing in situations where medical advice cannot promptly be obtained on the sudden attack of severe disease."

In our humble opinion, clergymen, and the heads of families, unless they have been regularly educated for the profession, would do much better not to read medical books at all, as we conceive that their perusal by unqualified persons is likely to do more harm than good; and a book like "Thomas's Practice of Physic," written as it is by physicians and surgeons, most of whom are teachers in their different departments, and whose language is professedly technical, is especially unsuited to non-medical readers.

Of the manner in which the editors of the present work have performed their respective parts in its preparation we may conscientiously write in terms of general commendation, but, nevertheless, we cannot but regret that so much talent was not employed upon an original work. There is a necessary appearance of patchwork about this book, and although the separate parts are meritoriously executed, they do not fit in and dovetail harmoniously with the rest. The fact is, that although Dr. Thomas's treatise was very good at the time it was written, it has been superseded by other books of far greater value, and many of the views it contained were founded upon premises which are no longer tenable. The new views of medical science are, therefore, engrafted upon the old in the present edition, and a ludicrous contrariety is the result. The whole resembles an old tree, which, although useful and ornamental in its day, is now dry, hollow, and sapless, which the verdure of the surrounding foliage cannot restore to its pristine vigour, although it may afford a semblance of juvenility to conceal the traces of age.

The classification of Dr. Thomas has also been retained, and, as this is almost wholly irreconcileable with modern pathology, not only are the most incongruous materials jumbled together in the same category, but erroneous views are presented to the mind of the learner.

Thus, for instance, we find purpura placed among the exanthemata, and, to our utter astonishment, albuminuria is placed among the phlegmasiæ! This same order of phlegmasiæ, in the class pyrexiæ, contains also delirium tremens, which is not an inflammation at all, and gout,

which is dependent upon the excess of uric acid in the blood. Diabetes, a disease characterised by a perversion of the assimilative functions, and by the discharge of large quantities of sugar in the urine, is placed in the order spasmi and the class neuroses!

Again, by this extraordinary system of adhering to an effete and worn-out scheme of nosology, we find diseases separated from one another which are essentially connected together in their pathological relations. Thus, after describing pleurisy among the phlegmasiæ, we find hydrothorax, which is the natural result of pleurisy, in a totally different order—intumescentiæ, which order (namely, the order of swelling,) contains hydatids, which are parasitic animalcules, and rachitis, which is due to the scanty assimilation of phosphate of lime. The order Tumores jumbles together bronchocele with scirrhus and carcinoma, which latter, however, are separated from fungus hæmatodes.

Among the shortcomings of the work, we can find no mention of laryngismus stridulus, which surely ought to have found a place among the spasmi, and we find no description in any part of cirrhosis of the liver. There is also a general absence of references to the improvements made in scientific medicine by the microscope and by chemistry; and altogether, although Dr. Thomas's "Practice of Physic" was a very good book for our fathers, and served our own purposes in our younger days; and, although we repeat, that the gentlemen who have undertaken the preparation of the present work deserve credit for their individual exertions, yet the whole affair is below the standard at a time when medical science has made remarkable and rapid progress, and when the principles of pathology have been placed upon better and surer foundations than those on which the practice of our ancestors was established.

A Manual of Human Anatomy: Descriptive, Practical, and General. By Robert Knox, M.D., F.R.S.E., Lecturer on Anatomy, and Corresponding Member of the National Academy of Medicine of France. Foolscap 8vo. Pp. 672. London: Renshaw. 1853.

Dr. Knox has so long been known as a scientific and talented lecturer upon anatomy, especially to our northern readers, that he requires no introduction from us; and we need, therefore, say nothing in proof of his fitness for the office which he has imposed upon himself—that of becoming an anatomical teacher through the medium of the Press. For ourselves, we certainly rejoice that the medical public can now obtain a work from his pen, written apparently not only in the spirit with which he lectured and taught, but doubtless improved by those numerous advantages which increased experience and a more matured judgment must necessarily bestow. He knows better probably than most men the kind of book required by pupils in studying the structure of the human frame; and we have sufficient confidence in his abilities and industry to believe him fully capable of supplying the want. To analyse or review Dr. Knox's Manual in the ordinary way is impossible in the limited space allotted to us, and, moreover, it is scarcely necessary that we should do so. We shall probably, therefore, be saying sufficient in pronouncing it to be one of the most complete, as it is the most recent work, on human anatomy which has issued from the publishers. The author, after stating that his present treatise is intended for the class-room, the private study, and the dissecting-room, and that it has been rendered as practical, systematic, and minute as possible, remarks:—

"Study deeply the osteology and myology; compare the descriptions you will find in this work with nature, and your future anatomical studies will prove a pleasant recreation rather than a painful and, it may be, an unsatisfactory pursuit. To the question, frequently put, as to the utility of minute anatomy, I reply, that this invaluable knowledge will enable you to reject many idle speculations in physiology and pathology daily offered you; by it you may at least check, if not destroy, empiricism, and combat rash surgery, come from whom it may. It is, in brief, the only torch which medicine possesses to guide her on the obscure, experimental, conjectural course she seems doomed to follow."—Preface.

Advice so excellent, and of so much real importance, cannot be too widely circulated or too deeply impressed upon the mind. It may not here be out of place to remind our younger readers of the boast often made by Sir Astley Cooper, that he never passed a day, even when in full practice, "without dissecting some part of the body." So it was with Mr. Liston, and the most eminent of his fellow-labourers. It may be positively asserted, that in the present day the man who attempts to become a surgeon without being an anatomist, must fail. He may go through a routine practice without any knowledge of anatomy, just as a parrot might, but his position will always be an unsatisfactory one, and he will have fearful errors to answer for, as every man must have who undertakes responsible duties for which he is unfitted.

It would be unjust to conclude this notice without bestowing a few words of praise upon the publisher. A more beautiful work of the kind and of the same scope, looking at it in an artistic point of view, has seldom, if ever, come under our notice. It is illustrated with between two and three hundred woodcuts from excellent, and for the most part original drawings by Dr. Westmacott, and is altogether admirably "got up."

A new feature in this work is, that the arteries have been coloured red, the veins blue, and the nerves are represented in white lines on a black ground.

An Introductory Lecture Delivered at the Opening of the Medical Session in Marischal College and University, Aberdeen, on November 1st, 1852. By George Ogilvie, M.D., Lecturer on the Institutes of Medicine. Pamphlet pp. 27. Aberdeen: A. Brown and Co. 1852.

Although this Introductory Address is the latest that has been published, it is by no means the worst. In addition to the good advice to students which such lectures generally contain, it is also replete with matter of interest to the practitioner. The following paragraph may be taken as a specimen of the author's style, although we hardly agree with the premises, or with the deductions from them:—

"The charge of a bias to infidelity is one of old standing against our Profession, and there have been times when it would appear not to have been without foundation, though, whatever may have been the case in the last century, I think I may say, without fear of contradiction, that, in the present day, medical men are as little amenable to such an accusation as any class of society. But, in rebutting the charge, as against our Profession in particular, I feel that I cannot deny its justice as applied to the age at large. True, the form in which it now appears is not so grossly revolting as that which flourished under the upas tree of the French Revolution, but it may not, on that account, be the less, but rather, indeed, the more dangerous. True, also, it is not so rife among us as among the continental nations, as well Protestant as Catholic, where the generality almost of men of science seem to hold such principles; yet there is only too much reason to fear that we may not remain long in their wake, considering the talent of the periodical literature by which such views are advocated even here, and the ability and activity of many of their propagandists."—P. 17.

PROGRESS OF MEDICAL SCIENCE.

SELECTIONS FROM FOREIGN JOURNALS.

UPON THE MORBID DESIRE TO KILL.

By Don Raimundo de Monasterio y Correa.

The Spanish medical journals do not exhibit the same amount of vigour as is shown in the weekly literature of both Germany and France. We trust, however, that the time will soon arrive when the Peninsular Press will become more free, and its contributors more conversant with general science.

The author commences with a eulogy on Esquirol's work, ("Sur la Monomanie Homicide." Paris, 1827,) and he quotes examples of this disease from Pinel, Marc, Gall, Mende. ("Annales de Henze," 1821.) These examples show the existence of a partial delirium, whether in the form of a fixed idea on an excited sensibility, extravagance in the passions, or error in judgment. In every instance there has been disturbance of the mind, and hence the words addressed by an advocate to Dr. Marc upon the occasion of a trial, express simple barbarity:—"If monomania be a disease, its

cure is upon the scaffold." The following bit of legal bloodthirstiness also merits being handed to posterity:—"Your so-called homicidal monomania is an hypothesis, a modern and convenient invention to shield the guilty and to withdraw them from the power of the law."

The author proceeds to say, that from the works of Majendie and other physiologists, he can prove that there are certain powers in man, which drive him in definite directions, without his possessing a will sufficiently strong to offer opposition. These powers, which can be reduced to four, reside in the corpora striata, the cerebellum, the crura cerebri, and the medulla oblongata. Injuries to these parts in animals call forth different involuntary movements; and the author concludes therefrom, that there are in man different impulses stronger than the will. Governed by these impulses, the homicidal maniac commits his crime. The definition of the term homicidal monomania is as difficult as it is important, and involves a question, not of mere national, but of universal interest, and capable of affecting us in both social and political relations. We cannot see the application of Majendie or Fleuren's experiments to the elucidation of psychical disturbances, nor comprehend why, because upon division of the crus cerebri, the injured and dizzy animal rolls over and over, a man who commits murder upon a false idea, with powerful impulse, should be considered as suffering from disease in the same part of the brain. We have before complained with justice of the gross ignorance of morbid anatomy displayed by the generality of "mental physicians" in all countries, and we think it hard to have to refute statements made upon no foundation whatever. The examinations of the bodies of criminal lunatics does not confirm in any one point the loose assertions of Dr. Raimundo. Neither the corpora striata nor the crura cerebri are often found in an abnormal condition; the cerebellum is, for the most part, natural in structure; the medulla oblongata unaltered, except that the membranes covering it become thickened when other parts of the encephalic coverings have undergone a similar change. We have no ground whatever for asserting that these parts are especially the seat of morbid actions during life. The cause of insanity is to be sought for further than is supposed by these philosophers of a somewhat materialistic school. The author endeavours, for judicial purposes, to found a formula of diagnosis between the maniac and the responsible culprit, both of whom have committed murder.

Homicidal Monomania.	*Criminal Murder.*
The person is one of weak constitution, of nervous excitable temperament, irreproachable character, working in business for the immediate necessaries of life.	The criminals are mostly persons of strong constitution, sanguineous or choleric temperament, bad education, given to idle courses, and occupied in immoral pursuits.
The monomaniac is alone.	The criminal is rarely alone; has usually accomplices to share the booty.
The maniac kills without interest or passion, without motive, making that man an offering who unluckily comes across him.	The criminal has a motive, has some passion to gratify, and selects his object accordingly.
The maniac disdains to fly, and often gives himself up to justice; he often details the particulars of his act, and seeks punishment more than pardon.	The criminal withdraws from observation, tries to mislead the judge, to cast suspicion on others, and to do his best to avoid punishment.

We doubt if these aphorisms will stand their ground as unerring tests in this difficult question. The records of the criminal department of Bethlem Hospital would point to many an inmate imprisoned for murder, whose constitution was good, and frame powerful and muscular. Many a criminal has had sufficient nerve to take life alone, unassisted by others; even the last who forfeited his life in the Metropolis fell under this class. Should we be justified in asserting that he was mad, because he was *alone* in his wife's chamber when he cut her throat?

Again, the maniac mostly takes life, not by chance or hazard, but in obedience to a fixed though erroneous idea, —sometimes in sudden passion. Who can at all times either discover or appreciate motives? Jealousy, hatred, or revenge, carefully guarded from public notice, would, but for the law, impel many a ruffian to gratify his passion at the cost of another's life.

The maniac does not always disdain to fly, and can even argue cleverly in his own defence. But what can be said of that class of offenders whose lowly-organised and ill-directed minds are equally under the influence of both fear and evil passions. Place them under restraint, they behave respectfully and with decency; give them liberty, and passion soon regains the mastery. Can any aphorisms comprehend the anomalies of this class? We believe not; each case must be determined by circumstances elucidated at the trial, and by the opinions of those on whom the responsibility of the judgment rests.—*Gac. de Madrid*, 238-240, 1851.

UPON THE DEVELOPMENT OF OXALURIA.

By Dr. BENEKE, Gottingen. 1852.

Oxaluria, a condition which accompanies the most varied states of disease, both slight and severe, has its origin in arrested metamorphosis, in an insufficient oxidation of the oxalic acid, formed in the organism, so as to constitute carbonic acid. Oxalic acid comes chiefly from nitrogenised blood or constituents of food. Whatever retards the metamorphosis of these ingredients will cause the appearance of oxalic acid in the urine, and produce oxaluria. Such retardation of the metamorphosis of the blood can ensue from errors in diet; from want of blood discs, and diminished oxidation; from impure air; from whatever impedes respiration and affects the circulation; from conditions of the nervous system, characterised by depression. Excess in the blood of alkaline bases exercises an important part in the production of oxaluria; and it is not improbable, that in consequence of a pathological plus in alkaline bases, accelerated formation of lactic and butyric acid in the digestive canal somehow interferes with the formation of the coloured blood corpuscles, and thus leads to a state of chlorosis which often precedes oxaluria. The course of treatment consists in diminishing in the blood the quantity of nitrogenous compounds and of alkaline bases, and to forward those physico-chemical processes upon which the metamorphosis of the nitrogenous elements of the blood depends.—*Schmidt's Jahrbuch*, 1853-1.

ALBUMINURIA AND ANASARCA IN CONNEXION WITH AFFECTIONS OF THE SPLEEN.

By Dr. SCHMIDT, in Posneck.

A man, aged 18, who had long lived in one district, where intermittent fevers were common, became the subject of anasarca and albuminuria. The anasarca vanished after the appearance of a miliary eruption, accompanied with desquamation over the whole body. The albuminous urine remained unaltered for eight months, when an attack of intermittent fever came on, which yielded to bark. Upon his recovery, it was found that the urine had regained its standard of health.

The author observes, that in affections of the spleen there are often albuminous urine and anasarca; both stand in intimate relation with the affection of the spleen, as the albumen vanishes from the urine, and the dropsy disappears as soon as the affection of the spleen is removed.

Albuminuria is, in these cases, a consequence of altered innervation of the nerves of the capillary vessels of the kidney, and perhaps of the whole body, which may proceed from the affection of the spleen,—an organ so important in the metamorphosis of the blood-corpuscles. That no positive degeneration of the kidneys exists, is proved by the cure of the disease after the administration of proper remedies. —*Deutsche Klin.*, 39; 1852.

INJECTION OF ALCOHOLIC TINCTURE OF IODINE INTO TUMOURS.

By Dr. GIAMBATT BORELLI.

Borelli divides tumours, suitable to iodine injections into two classes. 1. Sacs lined with serous, synovial, or mucous membrane. 2. Cavities, accidental, pathological, non-suppurating, or secondary after the process of suppuration. The first, ascites, hydrocele, ganglion, hydrarthrosis, ranula, and its varieties, he treats with a single injection. The second, cystic tumours, abscesses, fistulæ and their varieties, with repeated injections. He gives a number of cases of hydrocele in which the alcoholic tincture was used, either pure or diluted two-thirds or four-fifths with water. They prove that the diluted tincture was insufficient for the radical cure, and that the pure tincture only excited such inflammation as the case demanded. It is not certain whether the

injection will cause the obliteration of the sac, or merely check hypersecretion. Dangerous consequences are not to be feared from this line of treatment, if undertaken with care. The alcoholic tincture exercises a powerful coagulating influence upon the plastic elements of the different animal fluids, (albumen and fibrin.)—*Gazz. Sard.*, 34, 35, 36; 1852.

IODINE INJECTIONS IN ASCITES.

By CYPR. ORE.

The results of five observations show the harmlessness of iodine injections. Of the five cases, two recovered; and the three who died could not be said to have died of the treatment. The symptoms of re-action,—namely, heat, pain, fever, feeling of weight, loss of sleep, and peritonitis, are not of importance. The first effect is pallor, sinking of the pulse, and acute pain, which lasts for about ten minutes. The fluid used consisted of one-fourth tincture of iodine and three-fourth of any proper vehicle. In the case of relapse, one-third of the tincture may be used.—*Bull. de Thér.* Sept. 1852.

GENERAL CORRESPONDENCE.

VACCINE LYMPH.

[To the Editor of the Medical Times and Gazette.]

SIR,—In the report of the Epidemiological Society, in your impression of the 15th inst., Dr. W. Lewis is reported to have said, that "those results," viz., of Mr. Ceely's, on vaccination, published in the *Provincial Medical Journal*, "had not yet been verified by subsequent experiment." It may be interesting to your readers to learn, that Mr. Badcock, of this town, has gone over precisely the same ground as Mr. Ceely, by performing experiments on the cow inoculated with the small-pox virus, and then transferring the virus from the cow to the human subject, by which means he has succeeding in producing the vaccine vesicle from a fresh stock of lymph. I have vaccinated with lymph thus obtained, and produced the genuine vaccine from it. A gentleman, of much experience in this town, both in small-pox and vaccination, kept up a supply of this lymph thus obtained from Mr. Badcock's cows, and never had the slightest reason to doubt its efficacy and genuineness; other practitioners have done the same. These are facts worth stating. Dr. Finch is reported to have said, that he relied on the negative evidence rather than the positive; the negative being, in this case, the opinion expressed or entertained by the Indian practitioners against the validity of the fresh lymph obtained from cows inoculated with the small-pox. The experience of Mr. Badcock, an expert vaccinator, is however on the positive side, for he has vaccinated above 1000 children with lymph originally taken from cows of his own thus inoculated, and his lymph, thus obtained, is in use by many practitioners in this part of the world.—I am, &c.

J. A. HINGESTON.

22, Clifton-terrace, Brighton.

THE MEN-MIDWIVES OF THE COLLEGE OF SURGEONS.

[To the Editor of the Medical Times and Gazette.]

SIR,—I have read, in your Journal, several excellent papers relative to the new species of men midwives, licensed by the College of Surgeons. None of your Correspondents, however, have touched upon the *fons et origo* of this novel creation. The primum mobile, then, emanated from the office of the Poor-law Commissioners, who have long been particularly desirous of having an inferior grade of medical (?) men to attend the poor and their wives. The present race of Poor-law doctors being by far too well educated, and of course too expensive for pauper attendance. Something between a horse-doctor and a druggist would suit the men at head quarters better, because they would do the thing cheaper; and cheapness is a *sine qua non* in all Poor-law arrangements. When there shall be a sufficient number of these masculine *sages femmes* created, they will receive the Union appointments at much reduced salaries, and midwifery at 2s. 6d per case. Now, Sir, can Englishmen talk of American slave laws after this? Nay, more, the very cattle, when ill, have the best farrier that can be found in the neighbourhood. Human beings,—men, women, and children, are doomed to be excepted, and to receive the attendance of the cheapest taught and the cheapest contractor; the poor having no more voice in the matter than the cattle in a guardian's farm-yard. But, is it not most disgraceful to the Council of the College to connive at such infamous proceedings? What will these men not do to injure the General Practitioners, from whom they have received large sums as pupils, as members, and as Fellows for diplomas? What is the Profession likely to come to under such management? It is high time we carried a unanimous petition to the Home Minister for a separate college, which would protect the interests of its members, before ruin and disgrace overtake us. The excellent letter of Dr. Ramsbotham ought to stir up the Profession throughout the length and breadth of the land; and not rest quiet, until, by merging all minor differences, they obtain, by one grand movement, a college for the General Practitioners. I am, &c. Ανθρωπος.

TRUTH V. ERROR: DR. CRISP'S APOTHECARY-PHYSICIANS!

[To the Editor of the Medical Times and Gazette.]

SIR,—Permit me to correct an error which Dr. Crisp's letter, in yours of the 15th inst., conveys. From it one may suppose that a licentiate of the Apothecaries' Company is a physician, and, as such, can "write prescriptions and practise as a physician." This is a gross mistake. That Worshipful Company cannot create a "physician," nor a "surgeon," only an apothecary; and its licentiates are no more "physicians" than are licentiates of the Royal College of Physicians or University graduates apothecaries.

Every graduate (*i. e.*, M.D.) of our country's Universities is a "physician;" and every L.R.C.P. is a "physician." The University degree may be merely honorary, *i. e.*, marking the rank, but giving no right of practice; but the licentiate of the Royal College of Physicians, while he is a "physician" without the degree—which, however, he may possess independently—has a legal right to practise as such. Many of the licentiates of the Royal College of Physicians subscribe themselves "M.D.;" many of the licentiates of the Apothecaries' Company subscribe themselves "surgeon." Neither has a right to do so, unless separate diplomas be possessed, in virtue of which the title is appended.

It thus stands:—

Every M.D. is a physician; but every M.D. has not the legal right to practise as such.

Every L.R.C.P. is a physician, and has the legal right to practise as such; but every L.R.C.P., *intern* or *extern*, is not a Doctor of Medicine.

Every L.R.C.S. Eng. is a surgeon, with legal right of practice in England.

Every L.R.C.S. Ed. is a surgeon, with a pharmaceutical diploma embodied.

Every L.A.C. is an apothecary, but is neither a "physician" nor a "surgeon." He is a "medical practitioner," like the surgeon or the physician in general practice, *i. e.*, treating all sorts of cases.

Liverpool. I am, &c. M.D. EDTN.

SURGEONS TO EMIGRANT VESSELS.

[To the Editor of the Medical Times and Gazette.]

SIR,—Having been one of your oldest readers, I would beg to call your attention to the mode of appointing surgeons to emigrant vessels, and the importance of the subject, from the extensive emigration now going on, and also from the increased mortality which has recently occurred in vessels sailing to Australia.

It is not generally known, that, according to the "regulations" issued by the "Commissioners of Emigration," the surgeon appointed to these vessels has not merely to attend to the surgical and medical ailments of the passengers, but has various and most heterogeneous duties to perform. Among the variety I will mention two or three. He has to form the passengers into messes, to see that the food is good, properly cooked, and of sufficient quantity; he has to inculcate cleanliness, order, and regularity in their linen, berths, etc.; he has also to read prayers every morning, and, in addition, on Sundays a sermon has to be read or preached. In fact, by the rules of the "Commissioners," he is, or ought to be, the moral, medical, and religious superintendent of the emigrants.

It might rationally be supposed, that with all these important, serious, and onerous duties, the "Commissioners of Emigration" would have taken care that respectable and well-qualified parties should be chosen, and some guarantee for the due performance of what is required of them. The manner in which these appointments are filled up will demonstrate the improbability of obtaining efficient and respectable men.

The last Passenger Act, which came into operation at the beginning of October, contains ninety-one clauses. Out of this number

there are only three or four appertaining to that most essential officer, the surgeon-superintendent, and these clauses are only for the purpose of requiring the surgeon to be properly qualified, and to give him, with the captain, authority over the passengers. The Passenger Act, as regards the surgeon, would be of very limited utility, if the "Commissioners" had not reserved to themselves the power of making what rules and regulations they might consider advisable.

The "Commissioners," in forming the regulations for the surgeon, left the appointment in private vessels in the hands of the charterer or owner, without any guarantee for his good conduct or due performance of his duties, and without any pains or penalties for negligence or inefficiency. The charterer or owner of a private vessel too frequently appears to consider the best qualification for a surgeon is his acceptance of the lowest remuneration,—the offer of a free cabin passage is usually thought very liberal. Now, is it probable that responsible parties will undertake the disagreeable office upon such terms? For, independent of the trouble and annoyances they have to encounter, there is the outfit to be provided, amounting to 15*l.* or 20*l.*, and another 10*l.* or 12*l.* for instruments; and, moreover, if they should not wish to remain in the colony, there is quite a chance of a passage home without paying for it.

The "Commissioners," in the vessels chartered by themselves, pursue a very different course, as they not only pay the surgeon-superintendent liberally, (the remuneration being 10s. for every passenger landed in Australia,) but they also have the best guarantee for the diligent performance of his arduous duties, viz., after the passengers are landed, he has to make his report to the proper officer, and, before receiving the money for his services, to show he has given perfect satisfaction; otherwise the whole, or a portion of his emoluments are deducted. I understand the same guarantee is required from the superior officers of the vessel.

The Commissioners are well aware of the evil resulting from this anomalous distinction; and, I believe, excuse themselves for not placing private vessels on the same system, from the supposed difficulty of procuring a sufficient number of well-qualified men. This opinion is fallacious, as I am convinced, if the remuneration were ample and the treatment liberal, there would be more than sufficient. At the present time, I am acquainted with two perfectly-qualified parties, who would go immediately if their services were properly appreciated. Another plea of the Commissioners is, I understand, the delicacy of interfering with private interests; this plea cannot be justified where the public good is concerned. Until another Eclair occurs, or the mortality increases so rapidly as to alarm the public, private interest will remain paramount.

I am, &c. M.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

Dr. Babington, F.R.S., President, in the Chair.

Dr. Babington returned thanks to the members of the Society for the honour they had done him in electing him President. Dr. Babington observed that he had given his best assistance to the establishment of the Society, and that its first meetings had been held at his own house; and although latterly he had not often been present, yet this was not occasioned by any disinclination or forgetfulness of the Society, but in consequence of a severe attack of fever, from which he suffered in the autumn, the effects of which had hitherto prevented him from going abroad in the evening more than he could possibly help. He believed the importance of pathological investigations was every day becoming more manifest; but he might be permitted to remark that, in his opinion, there was a tendency in the present day to sever the connexion between morbid anatomy and symptomatology, and he conceived that such a tendency might become a source of evil, and was therefore to be regretted. The revelations of morbid anatomy acquired, in his view, their highest value when brought to illustrate the symptoms and phenomena of disease as observable during life; and it was only by comparing the notes of cases taken at the bed-side, with the morbid appearances exhibited after death, that sound and useful pathological knowledge could be established and diffused. Dr. Babington announced that the Council had recommended that a portion of the surplus funds should be devoted to the purpose of procuring photographic drawings of microscopic specimens.

The ordinary pathological business then commenced.

REPORT ON A CASE OF ENCYSTED CANCER OF THE BRAIN.

[By Mr. TOYNBEE.]

The tumour was pear-shaped, and measured four inches long, one inch and a-half in diameter at its larger extremity, and one inch at the smaller. Upon being touched it had the feel of being semi-fluid, excepting at the larger extremity, where it was somewhat more solid. Upon making a section, it was observed to be composed, 1st, of a dense capsule; 2ndly, of a matter about as firm as the healthy recent pons Varolii, and having somewhat its colour and appearance; 3rdly, of a pulpy matter of a dark grey colour, and containing a large number of blood-vessels, which were distended with dark-coloured blood; the whiter matter formed a mass at the larger extremity of the tumour about as large as a walnut, and a small portion of it, about the size of a filbert, occupied the smaller end. Upon microscopic examination, the capsule was found to consist of dense fibres, some placed side by side, others crossing them. The harder portions were almost wholly composed of extremely delicate fibres, among which a few nucleated cells were scattered. The softer gelatinous substance consisted of granular cells, nucleated cells, and some delicate fibres of the same size and structure as those seen in the harder portion. Many of the nucleated cells had fibres prolonged from them. Some of them had a fibre attached to each extremity. In many instances the cell appeared to be so much elongated that it had the aspect of a fibre with granules in its substance. The tumour had the general appearance and characters of encephaloid growths; the granular cells and fibres being more abundant than in ordinary specimens.

Dr. Bristowe observed, that he had submitted a portion of the disease (furnished him by the kindness of Mr. Toynbee) to microscopic examination, and was able to confirm the account which Mr. Toynbee had made. He had made a drawing of the appearances presented, and they would be found very similar to the appearances depicted by Mr. Toynbee.

Mr. Adams considered the aspect of the tumour had been somewhat peculiar, and he thought it was rare to see a disease of that character connected to the brain by so narrow an attachment. The cancer was evidently an example of the encysted form of that disease, and there was a specimen rather similar to it in the museum of St. Thomas's Hospital. Effusions of blood not unfrequently took place in cancerous deposits on the brain, giving them an appearance very similar to apoplectic clots. It was considered by some physicians, that cases of malignant disease of the brain could be distinguished from apoplexy by the symptoms, there being in cancer no sudden seizure but a gradual supervention of cerebral disorder; this distinction, however, could not be relied upon, for he had seen an instance in which a patient who had been suddenly seized with apoplectic symptoms, and who was considered by the physician to be suffering from apoplexy, was discovered after death to have a malignant tumour in the brain.

DISEASES OF THE AORTIC AND MITRAL VALVES.

Dr. Markham presented to the Society two specimens of diseases of the aortic and mitral valves; that of mitral valve disease was taken from the body of a woman about 40 years of age, who died, after a residence of a few days, in St. Mary's Hospital, from the usual symptoms produced by a high degree of mechanical impediment to the passage of the blood through the heart: viz., interference with the respiratory functions, general œdema, and effusions into the serous cavities. The mitral valves were thickened, had coalesced, forming a kind of truncated cone, which projected into the left ventricle; the orifice would not admit more than the very point of the little finger. The case proves the high degree of alteration of structure of the valves of the heart, with which life appears, for a long time at least, compatible. The man in whom the diseased aortic valves were found was 56 years of age, and had been in St. Mary's Hospital about nine weeks. He had never suffered from difficulty of breathing or dropsy, and, in fact, complained of little beyond a pain in the præcordial region, after eating or upon exertion; he was, however, a nervous man, and carried with him an expression of anxiety. A double aortic murmur and increased præcordial dulness were constantly observed whenever he was examined. He died very suddenly after rising at night to get upon the close stool. The aortic valves were found thickened, and the orifice narrowed; the thoracic aorta presented signs of old inflammation; its internal membrane being elevated and corrugated by a deposit of an albuminous character; the orifices of the coronary arteries were obstructed by a deposition of this matter around them, and very much narrowed; the arteries themselves perfectly healthy; the heart much enlarged, weighing 19 oz.; its tissue (muscular) quite healthy. The vessels of the brain were apparently unchanged in structure.

Dr. Sibson observed, that in this case the fourth and fifth inter-

costal spaces over the pericardium were drawn in slightly during ordinary inspiration; and it was stated by Skoda, that this condition was occasioned by an adhesion of the costal and pulmonary pleural layers, and of the anterior surface of the pericardium, in consequence of inflammation; such adhesions, however, had evidently not taken place in this instance, as, when a deep inspiration was taken, the retraction could not be discerned. He had never seen any previous specimen in which so much constriction of the mitral orifice was effected by disease.

Dr. Ramsbotham related the case of a woman who, after having gone through labour in a natural and satisfactory manner, suddenly died. On examination, the mitral valve of the heart was found diseased, and the mitral orifice had become excessively contracted.

MALFORMATION OF THE HEART.

Dr. Hale exhibited the heart of a child, in which there appeared to be no evidence of the existence of a ventricular septum. The specimen was delivered to Dr. Peacock for examination, and a report will be made on it by that gentleman at the next meeting of the Society.

LOBULAR HYPERTROPHY AND SCIRRHUS IN THE SAME BREAST.

Mr. Simon exhibited a breast in which lobular hypertrophy and hard cancer appeared to co-exist. The disease had been of several months' growth, and immediately around the nipple the hardness of the tumour and retraction of the skin furnished unequivocal evidence of the existence of cancer; but Mr. Simon had noticed, before the operation, that the circumference of the breast presented characters differing from the centre,—characters which, at the time, induced him to express his belief, were occasioned by the existence of lobular hypertrophy. The examination of the breast after its removal verified this opinion. Mr. Simon observed, that some time ago he removed the breast of a pregnant woman for a disease which he considered to be lobular hypertrophy. After a while, however, the patient returned to him with cancerous deposits in various parts of her body.

Mr. Fergusson and Mr. Dixon were requested by the President to examine the breast exhibited by Mr. Simon, and report on it at the next meeting.

RUPTURE OF THE JEJUNUM, AND LACERATION OF THE MESENTERY.

Mr. Simon remarked, that the portion of intestine which had sustained this rupture was removed from a man who came into St. Thomas's Hospital with fracture of the fibula. No other injury was suspected at the time of his admission, although the man complained of pain in the abdomen. On the following day he was ordered a dose of aperient medicine, and, as the bowels still remained inactive, they were relieved by injections. The pain in the abdomen continued, and four days after admission it grew extremely severe, and became associated with stercoraceous vomiting. On the succeeding day the patient died. On examination it was found that there was a rupture of the jejunum, and a laceration of the mesentery at its attachment to the ileum. Mr. Simon thought the case was remarkable from the extraordinary absence of symptoms in the first instance.

ULCERATION OF THE INTESTINE.

Dr. Bristowe exhibited specimens illustrating the extreme effects of ulceration in the small intestine. The ileum and lower part of the jejunum presented numerous ulcers, mostly cicatrising. At the commencement of the ilium a cicatrix had formed, reducing the calibre of the intestine to such a degree that the point of the little finger could barely be inserted. Below the seat of stricture the ileum was contracted, above considerably dilated; and in the pouch thus formed lay three plum-stones, which had evidently rested there for some time: the mucous membrane in their neighbourhood was ulcerated, and there was a sloughy opening, three or four lines in diameter, which communicated with the abdominal cavity, and had caused the extravasation of fæcal matter and consequent peritonitis, of which the patient died. It seemed probable that the plum-stones had renewed, or rather kept up the ulcerative process, and that to their presence was to be attributed the comparatively early fatal termination of the disease. The muscular coat at and above the stricture was much hypertrophied, being about a line in thickness; but the chief increase was in the subserous tissue, which opposite the stricture was an inch thick, but gradually diminished upwards, and, with the muscular tunic, resumed its natural dimensions about three or four inches from the seat of mischief. The intestinal parietes below the stricture were unaltered. At the lower part of the ileum two contiguous portions of the gut had become firmly adherent, and a small communication (one admitting readily of the passage of a director) had formed between the two. The remains of ulcers existed in the neighbourhood of either orifice. Opposite these, and indeed most of the larger cicatrizations, the caliber of the intestine was somewhat reduced, and the walls slightly thickened. Throughout the large intestine were numerous cicatrising ulcers. The mucous membrane was softened throughout, and in the sigmoid flexure and rectum patches and longitudinal bands presented almost a sloughy condition. There were a few chalky concretions in the apices of the lungs. The history of the patient, a widow 32 years of age, did not throw any great light on the case. She was in the hospital a week under Dr. Bennett's care, labouring under peritonitis, the result of perforation. She stated that for some years she had been liable to sudden attacks of pain in the abdomen with constipation, which, after continuing for a time, were often relieved by the occurrence of diarrhœa. No allusion was made to any decided attack of fever or dysentery in which the disease could have originated. Dr. Bristowe was inclined to believe that it was most probably the result of an attack of typhoid fever.

Mr. Obré presented a specimen of

ENCEPHALOID CANCER OF THE KIDNEYS.

It was removed from a male, aged 64 years, who had suffered during two years from occasional attacks of hæmaturia, the blood at times being in a fluid state, at others in clots moulded to the caliber of the urethra. Pain was continual in the lumbar region and over the bladder; the urine, for many months before death, was passed involuntarily; the hand, when pressed on the abdominal parietes, could detect a tumour in the left renal region; the left kidney weighed a pound and a-half, globular in form; the normal structures were quite destroyed, and replaced by a mass of encephaloid cancer; when cut, the numerous bleeding points gave it a general vermilion hue; the destroyed cortical and tubular structure had given place to cancerous matter in various states of consistence, from brain-like firmness to a semi-fluid state; an apoplectic clot occupied its centre; under the microscope it showed abundance of fatty matter interspersed with cancer cells. The right kidney was but little above its natural size; its cortical structure was studded with circular white deposit, firm to the touch, varying from a nut to a pea in size; when viewed under the microscope it showed a larger amount of cancer deposit than the left kidney. No other organ was diseased; the bladder was contracted, so as only to hold a couple of ounces of urine; numerous lumbar glands were enlarged with cancer deposit.

The specimen was referred to Mr. Adams for examination.

CALCULOUS PYELITIS.

Mr. Gay exhibited a specimen of this disease, and gave the following account of the case:—L. P., aged 32, admitted to the Royal Free Hospital Nov. 2nd, 1852, under Mr. Gay. Twelve months before she was a patient of Dr. Todd's in King's College Hospital, for an attack similar to that for which she was received into the Free Hospital; and was so much benefited by the treatment that she went out comparatively well; her symptoms, however, returned gradually upon her. Her face was pale, and her body attenuated; she passed her urine frequently, and with intense pain; there was considerable tenderness on pressure over the region of the bladder, and a constant aching sensation along the inner side of the right thigh; her urine, normal in quantity, contained much ropy pus and some blood, and had an alkaline re-action; her pulse was feeble, and general powers low. The bladder was sounded, but no calculus found. Copaiba, with henbane and nitric acid, was given, during the exhibition of which her symptoms became gradually less severe, and, at the expiration of a month, the pus had disappeared from her urine, and it had become slightly acid; sickness, however, supervened, but was relieved by hydrocyanic acid; diarrhœa followed, and was met by lead and opium; her legs began to swell about the middle of December,—her mouth became aphthous; her intellect faltered; she complained of stiffness in the legs; her urine was slightly albuminous, and she died on the 12th of January in a state of extreme exhaustion. She had not been troubled with any of her urinary symptoms for at least a month before her death, nor had she, according to her own account, ever suffered from lumbar pains.

Post-mortem Examination Thirty-five Hours after Death.—Rigor mortis nearly gone off; old pleuritic adhesions; an ounce of fluid in the pericardium; some fat about the heart, its substance pale; lungs slightly emphysematous; one or two cretaceous tubercles in the apex of the left lung; liver large, fatty, and firmly adherent over the right kidney; spleen flabby; the left kidney was large and fatty, and contained in its cortical texture an hydatid cyst filled with echinococci. The right kidney was converted into a large multilocular abscess; several of the loculi

containing large lithic acid calculi. On cutting through its tissue in several places, considerable quantities of milky pus poured out. The natural structure of the kidney was entirely destroyed, and little else discovered by the microscope (in the use of which I was assisted by Dr. Brinton) but fibrous tissue, with considerable quantities of fat. The bladder, uterus, and intestines were healthy. Mr. Gay remarked, that the case was interesting on account of the symptoms,—those belonging directly to the primary and more serious affections having been so slight as to be masked by those which marked the evacuation of alkaline urine. The hydatid cyst appeared to have caused no great amount of inconvenience to the left kidney. Mr. Gay mentioned the cases of a man and his wife who were under his care a few years since for hydatids, evidently of the kidney. Both complained of uneasiness in the loin, and acute pain in the situation of the anterior superior spine of the ileum. The urine was at first turbid, then mixed with pus and blood corpuscles, and finally with genuine echinococci, the hooklets of which were seen by Dr. Peacock as well as by himself. These persons were both treated with large doses of iron, and ultimately quite recovered.

The President asked Mr. Gay whether any albumen had been detected in the urine, while the patient was in the hospital, as he thought one of the kidneys exhibited an appearance frequently observed in albuminuria.

Mr. Gay said that a small quantity of albumen had always been present in the urine.

LARGE PHLEBOLITHES FROM A HORSE.

Mr. Simmons showed three large phlebolithes taken from the external jugular vein of a horse, which had prevented the blood from entering the vein, and therefore caused the contraction of the vessel. There was also a diseased condition of the liver in the same animal. The specimen was accompanied by coloured drawings of the morbid parts.

Dr. Crisp believed that phlebolithes were generally met with in the human subject, and especially in women, in the pelvic veins, as those vessels were more liable to encounter impediments to their circulation by external pressure, and so to permit the formation of thick concretions, than the veins in other parts. He considered that, in the specimen exhibited by Mr. Simmons, the vein first, from some cause or other, became contracted, and subsequently the formation of the phlebolithes ensued.

Mr. Simon was disposed to regard the phlebolithes as a cause, and not a consequence, of the contraction of the vein. He considered that the entrance of the blood was prevented by their formation, and that the result of this obstruction was the contraction of the vessel.

ATHEROMATOUS DEPOSIT IN, AND RUPTURE OF ONE VALVE OF THE AORTA.—CONGENITAL UNION OF TWO OF THE VALVES.

[Presented by Dr. SIEVEKING.]

This specimen was taken from a man aged 28, who, for eight months previous to his death, had suffered from œdema, ascites, hydrothorax, and hydropericardium. The urine, during life, contained some blood-corpuscles, and a corresponding amount of albumen with fibrinous casts. The kidneys were found enlarged, soft, and œdematous; the left weighing nine ounces and two drachms; the right eight ounces and two and a-half drachms. They contained no morbid deposit, and the microscope exhibited no marked deviation from the normal standard beyond the tubes being choked up with epithelium. About thirty hours before his death extreme dyspnœa and distress suddenly supervened; the beat of the heart and arteries was almost imperceptible, and extreme pallor spread over the lips. Some relief ensued temporarily at short intervals until death closed the scene. The left ventricle of the heart was found hypertrophied and dilated, but no valvular affection was discovered except in the aorta. Here two of the valves were found entirely adherent to one another, so as to form a single pouch, slightly divided by an elevated ridge, corresponding to the former separation. The attachment of the common union of the valves to the aorta was somewhat lower than the other points of attachment of the two valves. The single valve presented a larger pouch than normal, and its capacity appeared even larger than that of the conjoined valves. Atheromatous deposit was interposed between the membranous folds forming the valves, which, under the microscope, presented a fibrinous structure, disposed in irregular laminæ, over which much oil was scattered, as if the former were undergoing a gradual conversion into fat. There was no cholesterine, but some gritty particles contained in the atheroma, which from their behaviour with muriatic acid, appeared to be composed of carbonate of lime. The acid caused an evolution of gas, leaving a fibrinous substratum. One of the adherent valves presented evidence of extensive laceration from the free edge inwards, to which probably the symptoms immediately preceding death could be attributed. In the portion of the aorta attached to the preparation no atheroma was visible, and the origin of the coronary artery was healthy. The specimen was transmitted to Dr. Sieveking by Dr. Weber, the resident physician of the German Hospital. It was instructive, as illustrating the congenital union of two valves of the aortic, and the tendency of this malformation to induce secondary lesions such as that described.

Dr. Ogier Ward presented a specimen of apoplectic clots in the brain, but has neglected to send any account thereof to the Secretary.

The Society adjourned at the usual hour.

MEDICAL SOCIETY OF LONDON.

Mr. BISHOP, F.R.S., President, in the Chair.

LEUCOCYTHEMIA.

Dr. Lankester exhibited under the microscope a specimen of white cell blood. He had taken it from a man who had presented himself that morning at the Royal Pimlico Dispensary. The patient was between 40 and 60 years of age, and had served in the army for twenty years. About five months ago he had an attack of purging and vomiting; afterwards he felt pain in his right side, his appetite had failed him, he got thinner and weaker, and had since his first attack been under medical treatment without much benefit. His bowels were now constipated, his pulse low and feeble, his whole frame emaciated. He had tenderness on pressure below both hypochondria, especially the right, and there was evident enlargement of both liver and apparently of the spleen. He had recently been taking tonics, but with little or no amendment. On placing a small quantity of the blood under the microscope, it exhibited an evident increase in the number of colourless corpuscles. The red corpuscles coalesced more readily than in healthy blood. Dr. Lankester alluded to the researches of Dr. Bennett on this subject, and the conclusions he had arrived at with regard to the cause of white-cell blood, and thought that further evidence was necessary to confirm the theory of the connexion between its presence and disease of the spleen and lymphatic glands. In three cases recorded by Dr. Bennett, no such disease of the lymphatic glands or spleen could be found. It was very desirable to multiply instances of the occurrence of an increase of white cells in the blood, as in this way alone could we make out the true relation of this state of the blood to the general condition of the body, and render it of value as diagnostic of disease. He referred to the view, that the colourless cells were incipient conditions of the red corpuscles, and suggested that we might as fairly attribute this condition of the blood to an arrest of development of the white cells as to an increase of them from excited action of the glands which were supposed to form them.

Some conversation relative to this specimen ensued, in which several of the Fellows took a part.

STONE OF SUGAR-APPLE IN ONE OF THE BRONCHI.

Dr. Crisp exhibited the seed of a sugar-apple, which had remained ten months in a child's lung, and was then suddenly expelled. The particulars of the case were furnished by Mr. Reece, late of Barbadoes: "Rebecca Jane, aged two years and one month, daughter of Thos. Drayton, carpenter, of Christchurch parish, Barbadoes, in playing with the seed of the sugar-apple, contrived to let it slip down her throat. This happened on the 19th of June, 1846. The child suffered great agony, as might be expected, for the seed could by no means be ejected. Her sleep was irregular, and broken by convulsive jerks. She could not bear to be held in any other than a vertical position in the arms all day, and was propped up during the night. She also frequently expectorated small clots of blood. She was removed by her father to Bridge-town, and became an object of intense interest to the medical men of the island; one of whom, Dr. Borell, declared from the first (by means of auscultation) that the seed was lodged in the left lung. Things continued in this state until the 10th of April, 1841, when the child suddenly threw up the seed, which was found to be enveloped in a yellow mass of some gelatinous stuff, oval in shape, and indeed not unlike the cocoon of the silk-worm. I removed this matter, and washed the seed, which I send to you." Dr. Crisp said the seed was three-fifths of an inch long, and about the same in circumference; its exterior surface resembled that of a tamarind-stone. He thought the case of great practical interest, and it was one also of rare occurrence in so young a child. There were numerous cases on record of extraneous bodies in the air passages, but they had

generally occurred in adults, or in children from six to twelve years of age. Nature often managed these matters better than the surgeon or physician, and it was not improbable, judging from recorded cases, that if tracheotomy had been performed in this instance, that the result would have been unfavourable. A case, bearing some resemblance to this, was related by Mr. Travers, jun., in the "Medico-Chirurgical Transactions." A girl, aged 6, had a cherry-stone in the bronchus. From the urgency of the symptoms Mr. Travers was induced to perform tracheotomy on the nineteenth day after the accident. The stone was not found; the wound healed, and on the ninety-sixth day the stone was expelled with a tablespoonful of pus.

Dr. Hassall then read his paper

ON A REMARKABLE CASE OF SARCINA VENTRICULI WITH ANALYSES (MICROSCOPICAL AND CHEMICAL) OF THE FLUID VOMITED, AND OF THE URINE.—ILLUSTRATED BY FIGURES.

This case occurred in the person of a member of the Medical Profession, by whom Dr. Hassall was supplied with a very interesting and detailed history of the symptoms. Its chief features were, occasional severe gastrodynia, constant cardialgia, intense acidity of the contents of the stomach, frequent vomitings, distension from flatus, obstinate constipation, and usually an alkaline condition of the urine from fixed alkali, with copious deposit of the earthy phosphates. Dr. T—— had suffered from this distressing affection, off and on, for upwards of fifteen years, the symptoms having, however, within the last year become much aggravated. He consulted some years since Dr. Elliotson, Dr. G. Tothill, Dr. James Johnston, and, within the last five years, the late Dr. Prout; took charcoal, gunpowder, bismuth, prussic acid, creosote, nitrate of silver, and nitro-hydrochloric acid, without experiencing the least benefit—the latter remedy, indeed, increased greatly the pain, without lessening the severity or frequency of the vomitings. Dr. Hassall subjected the urine and vomited matter to careful microscopical and chemical examination. The deposit of earthy phosphate, usually so abundant in the night excretion, examined by the microscope, was found in one sample to consist chiefly of a great number of long and slender crystals, stretching right across the field of vision, pointed at either extremity, frequently split or divided into smaller secondary crystals, and more or less aggregated into bundles. The deposit procured from another sample consisted principally of the same crystals, although they were very much larger, and of a somewhat different shape. Their form, as nearly as could be ascertained, was that of a six-sided prism, the extremities being usually pointed and furnished with two unequal facettes; not unfrequently, however, the ends were truncated, and occasionally oblique. The deposit was examined chemically more than once both by Dr. Hassall and Dr. Letheby, and was found to consist chiefly of phosphate of magnesia, with some ammonia, and a little phosphate of lime; the latter substances being present as impurities, and forming, in all probability, no part of the composition of the crystals. Dr. Hassall stated, that, on referring to the works of Griffith, Owen Rees, Golding Bird, Bence Jones, and some other writers, he did not find these crystals either figured or described, although they were by no means uncommon, and he had himself detected them in several cases. In the vomited matter placed under the microscope, Dr. Hassall discovered the sarcina ventriculi in great abundance, presenting all its usual characters; intermixed with it were numerous starch corpuscles of wheat, many sporules of the common fungus, penicilium glaucum, as well as some sporules of another kind of fungus, which he had not seen described in connexion with sarcina, and which resembled rather closely in form and size the cholera sporules of Dr. Swaine. In the vomited matter subjected to an able chemical analysis by Dr. Letheby, considerable quantities of free hydrochloric and butyric acids were discovered. Dr. Hassall considered that in the discovery of the sarcina he had obtained an important clue by which many of the most urgent and distressing of the symptoms of the case were to be explained, and by which also the treatment to be adopted with a chance of success must be regulated. Thus the sarcina satisfactorily explained the intense acidity of the contents of the stomach, upon which the vomitings to a great extent depended; these, in their turn, by interfering with nutrition, accounted for the many symptoms of prostration and debility presented, and particularly for the alkalinity of the urine. Dr. Hassall next considered the indications which ought to be followed out in the treatment of this case; one of the chief of these was certainly to destroy the fungus, and this he thought was to be effected by two means; first, by the regular and systematic exhibition of alkalies, so as to neutralise the acidity of the contents of the stomach, and which acidity formed a condition essential to the development of the parasite; and, secondly, to administer some remedy capable of exerting a destructive effect on the fungus. With these objects in view, infusion of quassia and bicarbonate of potash were prescribed in mixture, and doses of the sulphite of soda separately, the diet being also regulated. After the lapse of a short time, Dr. Hassall learned that, although the sulphite of soda had not been taken, but only the quassia and bicarbonate of potash, yet that a marked and encouraging improvement in the symptoms had taken place, the frequency of the vomitings especially being diminished. Subsequently the sulphite of soda was administered; this remedy, together with the potash and quassia, having the effect of stopping entirely the vomiting for a period of five weeks. In fact, up to the date of Dr. Hassall's communication to the Society, not only had the vomitings ceased, but the bowels, before so obstinately confined, had become perfectly regular; there was no distention of the stomach or flatulency; the urine was clear, free from deposit, and passed in normal quantity; exertion does not now cause fatigue as formerly, and the sleep is invariably sound and refreshing.

Dr. Lankester thought the case was a good one, and valuable for many reasons. He considered the circular or ovoid fungiform bodies, represented in the drawings sent round by Dr. Hassall, were curious and worthy of attention, because they bore a great similarity to the pollen grains of a species of thistle, and because he believed that, in many instances, they constituted the cholera bodies so much spoken of during the last epidemic of cholera. It was not impossible that the penicilium glaucum might have been generated, after vomiting, in the matters thrown up. He was not inclined to regard the sarcinæ as originating causes of disease, but rather as accompaniments thereto; but he was quite ready to admit that sarcinæ having been generated in consequence of an existing disease, became frequently, in their turn, the sources of aggravation and continuance of the morbid state, which could only be relieved by their destruction. Sarcinæ were found coincident with very many conditions of disease. Mr. Busk, for example, had recorded an instance of their presence in the matters vomited by a lad who was brought to the Dreadnought suffering from concussion. He thought the relief obtained in Dr. Hassall's case was not attributable so much to the sulphite of potash, because the patient had, it appeared, taken, for some time previously, large quantities of bicarbonate of potash without the slightest benefit; but he felt more disposed to refer it to the salutary influence of the bitter infusion, as it had been mentioned that this alone, prior to the addition of the sulphite of potash, had been followed by considerable improvement. The administration of combined medicines, in many instances, produced perplexity as to which particular drug the curative result was to be referred; and he thought that the Profession would do well to imitate, at least in a proper degree, the practice of Dr. Elliotson, and administer only single drugs whenever it was practicable to do so.

Dr. Hare observed, that he had paid considerable attention to cases of sarcina ventriculi, and had seen the greatest benefit accrue from the exhibition of sulphite of soda. He believed this remedy had been given first at University College Hospital, in accordance with the advice of Professor Graham, that distinguished chemist having observed that it was a salt of peculiar powers in the destruction of certain forms of vegetable life. He had seen examples of the great efficacy of sulphite of soda after patients had been taking considerable doses of carbonate of soda for some time without effect. He remembered the case of a widow who had been troubled for a long time with distressing vomiting, and, indeed, generally vomited three or four times a day. Her symptoms were slightly relieved by the adherence to a carefully regulated diet, and careful abstinence from all fatty food; still she made no material progress till he administered the sulphite of potash, after taking which she had no vomiting for five weeks, when she was again sick. She has subsequently remained apparently quite well. On applying the stethoscope to the epigastrium in this case, he perceived a small crepitant sound, similar to that produced by the effervescence of champagne; and he had no doubt it was occasioned by the progress of fermentation within the stomach. In this instance, the patient was in the habit of pressing her stomach against a table or the back of a chair, by which proceeding her sufferings appeared to be relieved. He would observe, that sarcinæ were most frequently met with in adult life, although instances of their occurrence in children had presented themselves.

Mr. Richardson said, that, in the cases of sarcina related by Dr. Todd, there had always been a constriction of the pyloric orifice; so that the stomach was unable to expel its contents with proper facility; and Dr. Todd thought the sarcinæ had been generated in

fluids which had been long retained in the stomach in consequence of this constriction of the pylorus.

Dr. Camps was acquainted with a case of obstinate vomiting which yielded to no treatment for a long time, but at last appeared to be cured by the administration of cod's-liver oil. He thought the sickness in this case was most probably associated with the presence of sarcinæ, and he mentioned it because Dr. Hassall laid stress on the necessity of abstinence from oleaginous and fatty articles of food in the case which he submitted to the Society.

Dr. Fuller agreed in the opinion expressed by Dr. Lankester, that sarcinæ were not originating causes, but simply accompaniments of gastric disease; although he had no doubt, that, after a time, they became morbific agents, and increased the diseased condition with which they were associated. Sarcinæ seemed by no means confined to one peculiar affection, but were met with in various disorders, and this was of itself a sufficient proof that they did not originate the disease. He (Dr. Fuller) considered that the beneficial results in Dr. Hassall's case might possibly have been due to the infusion of quassia; but he had seen instances in which cures had been effected by the administration of sulphite of soda simply dissolved in water. In these cases of sarcinæ, it was interesting to notice the extreme acidity of the stomach, in contrast to the alkalescence of the urine,—an alkalescence attributable to the presence of fixed alkalies.

Dr. Snow inquired of Dr. Hassall why fatty and oleaginous matters were forbidden in the case he had related. He (Dr. Snow) should have expected that more advantage would have followed the abstinence from farinaceous articles of food.

Dr. Crisp thought it not unlikely that these fungi were generated in the first instance, in consequence of a loss of the reducing power of the stomach, and that they arose during the decomposition of animal and vegetable matter that ensued.

Dr. Radcliffe wished to know whether the food in these cases remained long in the stomach before vomiting took place. He was acquainted with a case in which vomiting was associated with the existence of constipation, and at first sarcinæ were discovered in the vomited matters, but they had not been seen in the later examinations.

Dr. Crisp remarked, that the stomach very rarely ejected its contents completely in vomiting, a small portion of the food generally remaining behind. If this were not the case in some instances, such, for example, as in the morning sickness observed in some pregnant women, the processes of nutrition would fail from want of supplies. He thought they could not be regarded as causes of disease, for they were found co-existent with various gastric complaints, and appeared to prevail at all periods of life, in children as well as in adults.

Mr. Alder Fisher asked whether the patient had been informed of the discovery of these sarcinæ during his sojourn in London, as he conceived it possible that the melioration of his symptoms might be explained, in great part at least, by the relief from anxiety and the improvement of the mental processes consequent on the discovery of these fungi.

Dr. Murphy asked whether sarcinæ had been ever observed in the contents of a healthy stomach, or whether they had been discovered only in cases in which some previous functional disorder could be established?

Dr. Hassall thanked the Society for the attention which had been paid to his communication, and remarked, that a great variety of points had been raised, and a great number of questions asked, to the most important of which he would endeavour to reply, and, first, he would address himself to the observations of Dr. Lankester. Although not at present able to determine whether the large brown bodies detected in the vomited matter constituted merely a form or condition of sarcina, or whether they were examples of a distinct fungus, yet he could confidently state, that they were not the pollen granules of the thistle, as suggested by Dr. Lankester, nor, indeed, of any plant with which the author was acquainted. He agreed with Dr. Lankester, that the sporules of the penicilium were probably developed in the fluid subsequent to its ejection. Dr. Lankester attributed the good effects of the treatment adopted to the infusion of quassia, rather than to the bicarbonate of potash or the sulphite of soda. This idea had been, to some extent, refuted by Dr. Fuller and Dr. Hare, who referred to the influence of the salt, and the good effects experienced from its use in similar cases, and in some when not mingled with quassia. Dr. Hassall was led to employ it, both from reasoning on its action, and in consequence of the success which had followed its administration in the hands of Dr. Jenner. At the time the author prescribed the sulphite he was not acquainted with the observations of Dr. Jenner. He had that day, however, read Dr. Jenner's lecture on sarcina with very great pleasure; and, in doing so, he was particularly struck with the great resemblance of the symptoms in Dr. Jenner's case and his own. Dr. Hare had referred to a case which had come under his own observation, and had alluded to the patient finding relief from the pain and distention by pressing the abdomen against a table or chair. It was worthy of notice, that, in most cases of sarcina, the patients assumed, especially when in bed, the prone position; and the tendency to assume this position, and the relief experienced, were probably to be explained by the support afforded to the over-distended stomach. The *modus operandi* of the sulphite of soda, in cases of sarcina, appears to be this. The sulphite is decomposed in the stomach by the acids generated therein, and the sulphurous acid gas is liberated; the destructive effects of which, upon parasitic formations like the sarcina, was well known. One gentleman alluded to the opinion entertained by Dr. Todd, that the development of the sarcina was consequent upon thickening and contraction of the pylorus. Whether this were so or not, the irritating character of the contents of the stomach, in all cases of sarcina, would be very apt to induce such contraction, and to maintain it where once it had occurred. In the present case, however, no distinct evidence had been obtained, by any of the physicians consulted, of the existence of any organic disease. The temporary recovery, which took place five years ago, during the residence of the patient in London, appeared to show clearly, that, up to that period at least, there was no serious organic mischief. Dr. Crisp referred to the occurrence of sarcina in a variety of different cases, and even in young children, and hence inferred that the sarcina was an effect and not a cause of disease; it must be admitted, however, that it aggravated very greatly the urgency of the symptoms. In every case yet recorded, there have been intense acidity of the stomach, and frequently recurring attacks of vomiting, resulting from that acidity. A clear and undoubted relation subsisted between the sarcina, the acidity, and the vomitings. Other speakers, as well as Dr. Lankester, seemed disposed to attribute the beneficial effects of the treatment to the quassia administered, without denying that this remedy had some effect; yet he, Dr. Hassall, considered that in all these cases the administration of alkalies and of the sulphite of soda was indispensable, and that it was on these remedies that the chief reliance was to be placed. In reply to the question of Dr. Radcliffe, as to whether the author had made any observations as to the length of time after taking food at which the vomitings had occurred, Dr. Hassall stated, that he was not possessed of any information on this point, but if, as Dr. Radcliffe supposed, the food was retained in the stomach for a longer period than ordinary, then such delay in the passage would no doubt favour the development of the sarcina. The author concluded his remarks by observing, in answer to Dr. Murphy and Dr. Snow, that he was not aware whether there was any connexion between sarcina and worms in children. Fatty matters were forbidden, because it was thought probable that the butyric acid, detected in the vomited matter, might be derived from the mal-assimilation of the fatty and oleaginous articles which had hitherto formed a portion of the diet of the patient.

The Society adjourned at the usual hour.

At the next meeting, Dr. Davey will read a paper "on the Proximate Cause of Insanity."

MEDICAL NEWS.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, January 20, 1853:—

Benson, Richard Brownlow, Bayswater.
Hadaway, James, St. Nicholas, Isle of Thanet.
Holden, John Fearne, Kingston-upon-Hull.
Liversidge, Henry, Peterborough Infirmary.
Taaffe, Richard Patrick Burke.
Winter, John Newnham, Brighton.

DEATHS.

Gregory.—Jan. 25, George Gregory, M.D. Edin. 1811; Fellow of the Royal College of Physicians; Physician to the Small-pox and Vaccination Hospitals; Author of the "Elements of Medicine;" "Lectures on Eruptive Fevers;" article, "Small-pox and Vaccination," in "Cyclopædia of Practical Medicine;" author of papers "On the Application of Blisters to Children," in "Medical Repository;" "The Identity of Small-pox and Cow-pox;" "Statistics of Small-pox," etc. etc.

Pereira.—Jan. 20, suddenly, at 47, Finsbury-square, Jonathan Pereira, Licentiate of the Royal College of Physicians, 1840; Fellow of the Royal College of Physicians, 1845; M.R.C.S.,

1825; Assistant-Physician to the London Hospital; Lecturer on Materia Medica at the London Hospital Medical School; Examiner in Materia Medica in the University of London: F.R.S., (Member of Council, 1843); author of "Elements of Materia Medica," "Treatise on Diet," 1843, "Selecta è Prescriptis," etc.

APPOINTMENTS.

MILITARY.—57th Foot: John James Scott, gent., to be Assistant-Surgeon; 73rd Foot: Assistant-Surgeon Wellington Poole, from the Staff, to be Assistant-Surgeon, vice Bolton, who resigns.

MILITIA.—Royal Cheshire: Thomas Brittain, gent., to be Assistant-Surgeon; West Essex: James Stuart Dobson, gent., to be Surgeon.

ST. MARYLEBONE GENERAL DISPENSARY.—Dr. Miller has been elected Physician to this Dispensary, in the room of Dr. Wadham, who has been elected Assistant-Physician to the Consumption Hospital. The other candidates for the office were Drs. O'Connor, Snow Beck, and Vander Bye.

WESTMINSTER HOSPITAL.—Dr. G. T. Fincham has been unanimously elected Assistant-Physician, and Mr. Charles Brooke, Assistant-Surgeon to this hospital.

BIRMINGHAM AND MIDLAND COUNTIES LYING-IN HOSPITAL AND DISPENSARY FOR THE DISEASES OF WOMEN AND CHILDREN.—At a special meeting of the Governors of the above Institution, held at the hospital on Wednesday, the 5th day of January, 1853, V. W. Blake, Esq., M.R.C.S., and W. C. Orford, Esq., M.R.C.S., were elected medical officers, to supply the vacancies occasioned by the resignation of Dr. Elkington and Dr. Mackay.

DISPENSARY AND INFIRMARY VACANCIES. — At the Manchester Royal Infirmary and Lunatic Asylum, a clerk to the physicians is wanted. The candidates must be unmarried, Licentiates of the Apothecary's Company, and are to forward their testimonials on or before the 5th of February, addressed to the Secretary. Salary 60*l.* a-year with board and lodging. At the Preston Dispensary a house-surgeon is required; the salary is 160*l.* per annum, with a furnished residence, coals, and gas. Applications are to be forwarded to the Secretary on or before the 8th of February. The office of House-Surgeon and Secretary to the West Norfolk and Lynn Hospital is vacant. The salary is 70*l.* per annum, with board, lodging, and washing. The election takes place on the 22nd Feb. The appointments of medical officers to the Ledbury Union will also become vacant on the 26th March. The successful candidates will be required to reside in the town of Ledbury, and to conform in every respect to the regulations of the Poor-law Board. The first district comprises the parish of Ledbury and the workhouse; area, 8,057 acres; population, 4,577; salary, 50*l.* per annum. The second district comprises eight parishes, area, 18,645 acres; population, 4,027; salary, 70*l.* per annum. The third district comprises thirteen parishes; area, 20,925 acres; population, 4,537; salary, 90*l.* per annum. The Guardians will provide all drugs and appliances; also a competent person to dispense the same; they also purpose subscribing to the Hereford and Worcester Infirmaries. No extra fees will be allowed. The elections are annual, and will take place at the Board-room, Ledbury, on Tuesday, the first day of February next. Testimonials must be transmitted to Mr. Jesse Hughes, clerk, on or before the 31st inst. The candidates will be required to be in attendance at the Board-room on the day of the election.

GERMAN HOSPITAL, DALSTON.—The office of Honorary Physician to this Institution is vacant.

ROYAL INSTITUTION.—The evening lectures at this Institution were resumed on Friday last, when a lecture was delivered by Professor Faraday, before a brilliant and crowded audience, comprising some of the most distinguished scientific characters of the present day. Among the company we noticed Earl Granville, the Lord Chief Baron, Sir Charles Lyell, Sir John Herschel, Sir Roderick Murchison, Dr. Paris, and most of the professors of natural science at the metropolitan schools. The object of the lecture was to communicate to the public the result of some researches lately made by Dr. Faraday upon magnetic repulsion. The distinction drawn between the paramagnetic and diamagnetic properties of bodies has already been amply illustrated by Dr. Faraday in previous discourses, but his late investigations upon the subject have been directed to the measurement of the exact amount of the repulsive or diamagnetic power. The ingenious apparatus employed for the purpose, which depends for its effect upon the torsion exerted upon a thread, was explained with his usual perspicuity by the learned and accomplished lecturer, whose remarks were listened to throughout with the deepest attention.

ROYAL FREE HOSPITAL.—The office of Chairman of the Committee of Management of this Institution has become vacant from the death of the Rev. Dr. Rice, Head Master of Christ's Hospital. This much-respected gentleman committed suicide, during a fit of temporary insanity, on the 20th inst. His loss will be severely felt.

HANWELL AND COLNEY-HATCH ASYLUMS.—At the ordinary meeting of the Middlesex magistrates, held at the Sessions-house, Clerkenwell-green, Mr. Maude read the Annual Reports from Hanwell and Colney-hatch Lunatic Asylums. From the Report of the former, it appeared that the new chapel and other accommodation sanctioned by the court on a former occasion, were commenced in November last, and will be completed in June. The estimated cost was 4985*l.*, but, in consequence of an advance in the cost of building materials, this sum will be slightly exceeded. The returns made by Dr. Begley showed that 56 men were admitted during the past year, of whom 14 have been discharged cured, 5 much improved, and 5 continue unamended; 25 have died, leaving 411 men now in the asylum. The number of women admitted during the year has been 63, of whom 4 have been previously in the asylum. Of these 43 have been discharged cured, 14 were removed by parishes or friends, and only 4 remain unimproved. The total number of women at present in the asylum was 552, making the total number of patients at present 963. The Committee recognised with great regret the resignation of Dr. Conolly. From the Report on the Colney-hatch Asylum, it appeared, that at present there were in the establishment 515 males, and 729 females. The total number admitted during the year had been 354 males, and 270 females, of whom 42 males and 26 females had been discharged cured, 24 males and 17 females had been removed by parishes or friends, 53 males and 22 females have died, and 235 males and 205 females remain in the asylum. The total deaths during the year have been 119 males and 70 females; but, of these, 68 only survived three months from their admission; and a large majority of those brought to the asylum since its opening had been long afflicted, and confined in private asylums or workhouses. Both the reports were ordered to be printed and circulated, in order to be taken into consideration at the next county day.

THE ALLEGED STABBING CASE AT THE WAR OFFICE.—Dr. Chowne and Mr. Hancock, of Charing-cross Hospital, attended at the Bow-street Police Court, on the 21st inst., to make a statement of their opinions respecting the late supposed outrage; the particulars of which are doubtless known to our readers. These gentlemen observed that, on examining the child after its admission into the hospital, she stated that "while she was obeying a call of nature over the grating one of her feet slipped through the bars, and then something ran into her." She was asked if any one was present or near her at the time, or under the grating, and she replied, "No; but my foot slipped through the grating, and something hurt me." Now, supposing her foot to have slipped through the grating in this way, there is no doubt that the stretching of the parts caused by the accident produced the laceration inside the vagina, which was not more than half an inch long, and was not so serious in its nature as was represented. This is certainly the most probable explanation of this hitherto mysterious occurrence.

FATAL EPIDEMIC AT CROYDON.—The town and neighbourhood of Croydon, in Surrey, are suffering from malignant fever, which, during the last fortnight, has been most fatal in its results, the victims being not, as is usually the case, among the poor, but among the gentry and the principal tradesmen of the town. A great many exaggerated reports have been in circulation. Dr. Southwood Smith and Dr. Sutherland were sent to Croydon to report upon the cause and nature of the prevailing epidemic. The following is an extract from the report made by these gentlemen upon the subject. After some prefatory remarks, the report states —"We have ascertained that a similar disease had prevailed at Oxted, a few miles from Croydon, before any disease of a like kind was observed at Croydon; and we have to add that, from communications received by the General Board of Health, it appears that for many weeks past a similar epidemic has prevailed in various villages and towns both in England and Wales. We apprehend the cause of the disease is to be found at Croydon, as elsewhere, in the peculiarity of the present season, the combination of excessive moisture and heat appearing to have proved, as was anticipated, the generation and spread of a low form of fever. The last official circular of the General Board of Health (No. 8), issued in December, warned the local boards, from the excessive rains and consequent floodings which had even then occurred in many places, to expect unusual

outbreaks of fever, and exhorted them to take immediate measures of precaution against such an event." The Local Board of Health also took steps to have the water supplied to the town analysed by Professor Way, and he reported it to be free from any metallic oxide, and of a pure and wholesome character, and that there was not the smallest ground for supposing it to be injurious to health, or in any way connected with the fever existing in the town; and, therefore, it seems highly probable that the cause is truly stated in the report of Dr. Southwood Smith and Dr. Sutherland. The number of deaths in Croydon last week was 16; and on Saturday, according to the Registrar's report, the number was 17, the greater portion of them being the result of the epidemic. A great many persons are now lying ill, and among them Mr. Harrison, the assistant to one of the medical officers of the union.

Mortality Notabilia.—The number of deaths registered in the Metropolitan districts in the week that ended last Saturday is nearly the same as in the week preceding, being 994. In the ten corresponding weeks of the years 1843-52 the average number was 1084, which, if corrected for increase of population during these years, gives a mortality of 1192 for the present time. Last week's Return, therefore, exhibits a reduction of 198 on the estimated amount. It will be seen from the observations of Registrars, that cases of fever, both typhus and scarlatina, have been numerous and fatal in particular parts, but it is satisfactory to find that, taking the whole of London, the mortality of the epidemic class of diseases shows some diminution when compared with that of the previous week, and that it is also less than the average of corresponding weeks in former years. In the last four weeks scarlatina destroyed successively 67, 66, 63, and 38 lives; typhus, which has been more uniform in its results, was fatal in 51, 43, 52, and 48 cases. Judging from the mortality, diarrhœa shows no disposition to prevail, and no deaths have been recorded from English or other cholera during the last three weeks. But hooping-cough rose from 39 deaths in the previous week to 49 in the last; bronchitis from 67 to 82; phthisis was fatal in the last three weeks in 104, 125, and 134 cases. In connexion with this increase in affections of the respiratory organs, it may be noticed that the mean weekly temperature, which at the beginning of the year was so high as 47·5°, and was afterwards 45°, fell last week to 41·9°. Last week the births of 790 boys and 787 girls, in all 1577 children, were registered in London. In the eight corresponding weeks of the years 1845-52 the average number was 1427.

DEATHS *in the Metropolis for the week ending Saturday, January* 22, 1853.

Causes of Death.	Jan. 22. 0	15	60	All Ages.	Sum of Ten Weeks.
All Causes	446	327	199	994	10836
Specified Causes	446	327	199	972	10768
1. Zymotic (or Epidemic, Endemic, and Contagious) Diseases ...	154	31	11	196	2104
Sporadic Diseases:					
2. Dropsy, Cancer, and other Diseases of uncertain or variable seat ...	4	22	23	49	490
3. Tubercular Diseases	71	121	6	198	1829
4. Diseases of the Brain, Spinal Marrow, Nerves, and Senses ...	50	35	30	115	1236
5. Diseases of the Heart and Blood-vessels	6	20	10	36	357
6. Diseases of the Lungs and of the other Organs of Respiration ...	73	47	51	171	2357
7. Diseases of the Stomach, Liver, and other Organs of Digestion...	22	23	11	56	614
8. Diseases of the Kidneys, etc. ...	...	6	3	9	114
9. Childbirth, Diseases of the Uterus	...	7	3	10	112
10. Rheumatism, Diseases of the Bones, Joints, etc.	2	5	1	8	79
11. Diseases of the Skin, Cellular Tissue, etc.	2	1	...	3	17
12. Malformations	4	...	...	4	35
13. Premature Birth and Debility ...	27	2	...	29	228
14. Atrophy	22	...	4	26	177
15. Age	...	...	40	40	645
16. Sudden	2	...	3	5	106
17. Violence, Privation, Cold, and Intemperance	7	7	3	17	268
Causes not Specified	...	...	...	22	68

BOOKS RECEIVED.

Skoda's Treatise on Auscultation and Percussion. Translated by W. O. Markham, M.D.

Dr. Norman Chevers on the Removable and Mitigable Causes of Death.

TO CORRESPONDENTS.

C. Appleton.—The subject is hardly suited to our columns. It has been stated, that in the ten years from 1812 to 1851 inclusive, capital convictions were obtained in this country, and the sentence of death passed in 612 cases, of which number only 107 were executed. If this be true, it militates against your opinion.

A. W. (Hatton-garden).—Your remarks shall be borne in mind. We are unwilling, at least for the present, to give any opinion as to the utility, etc., of the hospital in question.

A Young Microscopist should study the Hand-book of Human Histology by Kölliker, entitled "Handbuch der Gewebe-Lehre des Menschen für Aerzte und Studirende, mit 313 Holzschnitten." We are glad he has found the two lectures of Dr. Boon Hayes so useful. Let him read all of them carefully as they appear in our columns, and most of the difficulties which now obstruct his progress will vanish.

A Subscriber.—The first festival of the Medical Benevolent College will be held on the 4th May, at the Freemasons' Tavern. The Earl of Manvers will preside.

M.B. (Londinensis).—Before writing further on the subject referred to, peruse Dr. Forbes' account of his visit to Dr. Guggenbühl's establishment for the treatment of cretinism. You will find a most interesting description of it in the admirable hand-book—"A Physician's Holiday; or, A Month in Switzerland in the Summer of 1848."

Alpha.—The Germans have done much towards making science and literature popular. Such men as Liebig, Humboldt, Oersted, Schleiden, Unger, Kobell, and Moleschott, have not disdained to teach the multitude.

A Young Practitioner.—The case as described appears to have been one of hysteria. Had it been true peritonitis, we doubt not that the treatment adopted by the quack doctor would have resulted in a very unfavourable event.

— *Fearn, Esq.*—The "Medical Intelligencer" of Mr. Churchill will give the information required.

L. J. C.—The Treasury Minute of 1840, allowing the admixture of chicory with coffee, was rescinded in the early part of last year. It is, therefore, now illegal to mix chicory or any other vegetable substance with coffee.

The case forwarded to us for publication by *A Young Toxicologist* contains nothing new. Many deaths have occurred from the fumes of nitric acid.

A Subscriber.—St. Mary's Hospital was opened with fifty beds in May, 1851. It now contains eighty-five beds for surgical, and sixty-five for medical cases.

D. C. L., F.R.S., &c.—It is very doubtful when the autobiography of Berzelius will be published. The reason of the delay is said to be the numerous personal allusions and unsparing criticisms of living or recently deceased scientific men which it contains; the laws of Sweden forbidding the printing of works dealing in personalities until several years after the death of their authors.

Studens.—If you are unable to satisfy the examiners at the College and Hall, you had better turn your attention to some other occupation. We fear the Medical Profession is not your calling.

A General Practitioner.—The remuneration when called to attend a patient by the police authorities is 3s. 6d. a visit up to nine p.m.; after that time, and until six a.m., 7s. Send your account to the Commissioners in Scotland-yard.

J. H.—The books which are required to be read by students for the classical and mathematical examination at Apothecaries' Hall for the present session, are the 1st book of Homer's Iliad, and the Gospel of St. Mark, in Greek; the 1st book of the Georgics, and the oration of Cicero against Catiline, in Latin; the 1st book of Euclid, and algebra, including simple equations.

A Diligent Student.—1. Watson's Lectures. 2. Dr. Royle's work will most probably be completed in about two months. 3. A note addressed to Dr. Barlow would procure perhaps the desired information. 4. Wilson's "Vade Mecum." 5. Lindley's "School Botany" contains a sufficient amount of information for the purpose mentioned.

W. H. Peacock (Halifax).—Pillischer's address is 398, Oxford-street. He is the maker of the microscope referred to.

Mr. William Sly, jun., Wincanton, must advertise for the situation he requires.

E. P. J.—The pathological works to consult are those of Craigie or Allison, or the "Principles of Medicine," by Dr. J. C. B. Williams.

One who Pays the Income-tax.—Your case is hard, but the tax as at present levied is so unjust that every professional man suffers

A Subscriber.—The New Series of the "Medical Times" was commenced in July, 1850. The volumes are numbered in regular succession from that date, so that the collected numbers from July to December, 1852, form Volume V.

COMMUNICATIONS have been received from—

Dr. Letheby, London Hospital; M.D., Liverpool; Dr. Dundas, Liverpool; Anthropos; Dr. Waller, Finsbury-square; G. W. North, Esq., York; Mr. William Sly, Wincanton, Somerset; A Student of a London Hospital; Dr. Kramer, Berlin: David Cope, Esq., Birmingham; E. P. J., Lancashire; R. D. Lyons, Esq., Upper Merrion-street, Dublin; Dr. M'William, Trinity-square, Tower-hill; Studens; J. T. H., from Butler and Harding; A Subscriber; Mr. F. Barlow, Westminster Hospital.

ORIGINAL LECTURES.

A COURSE OF LECTURES ON ORGANIC CHEMISTRY,

DELIVERED IN THE

Laboratory of the Royal Institution of Great Britain.

By DR. A. W. HOFMANN, F.R.S,
Professor at the Royal College of Chemistry.

INTRODUCTORY LECTURE.

Gentlemen,—In commencing this series of lectures on organic chemistry, which must of necessity give only a partial and incomplete view of that vast domain of science, I think it will be profitable if I first direct your attention to the subjects which I have to bring under your notice, and to the point of view from which I intend to present them.

Those of you who are practically acquainted with organic chemistry are conscious of the vast extent which this branch of science has reached within the last few years; even those who have but a general acquaintance with the subject can hardly have failed to notice the discoveries made in this department, and all must see how vain must be any attempt to give a full and connected view of organic chemistry in a few short lectures. I am not here to give a systematic course, but to set before you a brief sketch of the most important discoveries in this branch of knowledge, discoveries of older date, the influence of which may be clearly and perceptibly traced in the present aspect of science, and also those very recent researches which, elaborated as they have been under our own eyes, have as yet had scarcely time to be fully appreciated, but which no doubt will materially affect the future progress of chemistry.

I have said that my course must be limited; still I hope to be able so to select my subjects, and to connect them with one another, and to illustrate them in such a manner that if any of you desire hereafter a more particular acquaintance with any portion of the science, you will always be able to recognise the true position of the knowledge which you seek to obtain; and, whilst advancing through the intricacies which may impede your progress, you will never fail in retracing your steps to one or other of the striking points of the science which in this course we shall explore together.

The subject of these lectures, then, gentlemen, may be designated the most important chapters in organic chemistry. Now, let me begin with some remarks on the use of this term. What is meant by this expression? What is the difference between organic and inorganic chemistry? In fact, does any well-defined boundary exist at all? It is far easier, gentlemen, to ask questions than to answer them. I might assume that every one here present could well distinguish an organic from an inorganic substance, that all of you understand well what is generally intended by the terms organic and inorganic chemistry. But let us not thus avoid questions, the answers to which will at once set before you the point of view under which I wish you to regard the subject of these lectures.

Organic chemistry is generally described as treating of the substances which compose the structure of plants and animals in contradistinction to the chemistry of minerals. In order to see how far we may avail ourselves of this definition, let us for a moment examine the substances of which plants and animals are composed. The ultimate analysis of vegetable and animal bodies has proved that their mass is chiefly composed of four elements, namely, carbon, hydrogen, nitrogen, and oxygen. Together with these four elements there occur, in smaller or larger quantities, sulphur, phosphorus, silicium, chlorine, iodine, fluorine, and the metals potassium, sodium, calcium, magnesium, and iron. From this fact, it is obvious that plants and animals have no special elementary constituents of their own, for all the elements which have been enumerated are to be found in compounds of undisputed mineral origin. Nor could it be otherwise; both plants and animals derive their substance from the mineral world which surrounds them.

I have just now stated, that among the twelve or fourteen elements which have been mentioned, there are four which predominate in the composition of vegetable and animal matter; that is, if the vegetable and animal kingdoms be taken as a whole, and those individual plants and animals which exhibit a preponderance of some other element be regarded as exceptional cases. These four elements, let me repeat it, are carbon, hydrogen, nitrogen, and oxygen. They differ from the rest, not only by the prevailing quantity in which they are present, but also by the distinguishing peculiarities exhibited in several other points. If animal or vegetable matter be exposed to a high temperature, free access of atmospheric air being admitted, we find that a part of it is dissipated, while another portion cannot be volatilized, and is no longer affected by the process of heating. Now, analysis shows that in this case it is exactly the carbon, hydrogen, nitrogen, and, to a considerable extent, also the oxygen, which are carried off, while all the rest, whatever their nature may be, remain behind. Take as an illustration the bone of an animal. It contains carbon, hydrogen, nitrogen, oxygen, phosphorus, and calcium. The three former, together with a portion of the oxygen, are present in bones in the form of gelatin or glue; the rest of the oxygen, together with the phosphorus and calcium, in the form of phosphate of lime. Now, if this bone be heated in the air, the whole of the gelatin is gradually burnt off, nothing but phosphate of lime remaining behind. I hold in my hands two pieces of bone of about the same size—the one fresh, still contains the gelatin; the second has been subjected to the action of heat. They are very similar in shape and external appearance; a difference, however, will become at once perceptible if you compare their weights—the burnt being much lighter than the unburnt bone.

A similar behaviour is exhibited by all vegetable and animal substances. When submitted to combustion, their carbon is converted into carbonic acid, their hydrogen into water, whereby the greater part of their oxygen is volatilized; the nitrogen escapes as such, the rest of the elements remains behind, in the form of what is generally called the ash of animal or vegetable matter. And this effect is by no means exclusively produced by combustion. All vegetable and animal matter, when no longer under the influence of vitality, undergoes gradually a similar change, becoming subject to those grand processes of destruction, daily accomplished under our eyes, which are designated by the terms "decay" and "putrefaction." The ultimate result of these processes is similar to that of combustion.

We might accordingly distinguish the elements which enter into the composition of plants and animals as *volatilizable* and *fixed*, or, if you please, as *atmospheric* elements and *earthy* elements; for, when separated in these processes of destruction, the former mingle with the atmosphere, while the latter mix with the mineral matter of the soil. The distinction in vegetables and animals of atmospheric and earthy elements appears even more appropriate if we glance for a moment at the mode in which plants and animals are formed. The researches of agricultural chemistry have shown, that, while the growing plant finds ample stores of all its fixed elements in the mineral constituents of the soil, it is the atmosphere from which it derives its carbon, its hydrogen, nitrogen, and oxygen,—the very elements which, as we have seen, the dying plant returned to the atmosphere. The animal, feeding as it does on plants, likewise receives, although less directly, its carbon, hydrogen, etc., from the atmosphere. The distinction of atmospheric and earthy elements, therefore, appears perfectly justified, whether we consider the origin of plants and animals, or whether we regard the ultimate results of their destruction.

Both the atmospheric and the earthy elements combine with each other to form a very great variety of compounds, which are called the "proximate constituents of plants and animals." Starch, sugar, the various vegetable and animal fats, the great number of acids occurring in plants and animals, such as tartaric, citric, malic, benzoic, hippuric, and uric acids; the host of alkaloids of a similar origin, such as quinine, strychnine, morphine, caffeine, urea, etc.; the various colouring matters, the essential oils and resins, etc., are among the endless variety of proximate constituents that are formed by the atmospheric elements. On the other hand, the earthy elements are associated to compounds less

varied perhaps, but still presenting a considerable diversity of composition,—the sulphates of potassa, soda, and lime; the silicates and phosphates of these bases, the corresponding chlorides, etc., are the most frequently-occurring forms in which the mineral elements either exist in vegetable or animal structures, or are left in their ash after incineration.

These results show that a great portion of plants and animals is made up of truly earthy substances. The necessity of these substances for the development of the animal frame has been long recognised. Their importance in respect to the growth of plants, neglected and underrated but a few years back, is now fully acknowledged, being strikingly illustrated both by the researches of the vegeto-physiologist, and the experience of the practical farmer; and, indeed, one of the greatest modern advances in the theory of manures is based upon the clear recognition of this simple but important fact.

The description of the composition and properties of these earthy compounds being given in every manual on inorganic chemistry, it is obvious that the definition representing organic chemistry as that branch of chemical science which treats of the substances composing the structure of plants and animals cannot be admitted without limitation.

But how is the definition to be limited? Are we to confine organic chemistry to the study of those substances which are combinations of the atmospheric elements—in fact, to the substances composed of carbon, hydrogen, nitrogen, and oxygen? A moment's reflection will show that a further restriction is still necessary. It has been already pointed out that a certain amount of oxygen forms part of those proximate constituents which consist of earthy matter. Again, the oxides of carbon, hydrogen, and nitrogen—viz., carbonic acid, water, and nitric acid—are found so generally diffused, and, moreover, in such enormous quantities in the mineral kingdom, that nobody has ever thought of considering these compounds as exclusively belonging to plants and animals, although, in smaller or larger proportion, they occur in their organisms. The compounds of nitrogen with hydrogen and carbon—ammonia and cyanogen—occur far less frequently in the mineral world; nevertheless, they have been observed under circumstances which so entirely exclude the intervention of plants and animals, that many chemists are inclined to attribute even to these substances a mineral character; while others are of opinion that these nitrogen compounds, and especially cyanogen, belong to the domain of organic chemistry.

You will perceive already, that considerable difficulties present themselves in drawing the line of demarcation between inorganic and organic chemistry. The very fact, that certain substances are considered by some to be organic, while others believe them to be inorganic, sufficiently proves that the division is rather arbitrary and artificial. It is obvious that this division was made at a period when the science had scarcely made sufficient progress to admit of a rigorous definition of the principles upon which this classification was based. In proportion as chemical science advanced, it became more and more difficult to maintain this division upon scientific grounds.

A great many attempts have been made at a rigorous distinction between inorganic and organic compounds. It has been proposed to confine the term *organic* to substances which are exclusively generated by the action of vital processes in plants or animals; while such compounds were called inorganic as could be made directly, without the intervention of life, from the elements of which they are composed.

Now let us examine somewhat in detail the foundation upon which this division rests, and you will see at once that in the present phase of the progress of modern chemistry, this distinction, like the former, is perfectly untenable. It is well known that a great number of substances, which were formerly exclusively derived from plants and animals, are now prepared in our laboratories by artificial means.

I do not allude here to a great variety of metamorphoses or re-arrangements of the constituents of substances, which we are daily accomplishing in the laboratory, and which really are no artificial formations of vegetable and animal compounds, at least not from their elements. If we have succeeded in preparing œnanthic acid, which constitutes the *bouquet* of certain wines, from oleic acid, the principal ingredient of olive oil—if it has been possible to obtain the volatile acid of Valerian root, or the fatty acid of butter, by means of ordinary sugar,—we are still far from being able to build up these substances from their elementary constituents; for the power of inducing carbon, hydrogen, and oxygen to assume the form of oleic acid, or of sugar, is as yet possessed by plants alone. Again, the essential oil, to which the aroma of the spirea ulmaria (the queen of the meadows) is due, is no longer extracted from the flowers of this plant; we prepare it more conveniently, purer, and cheaper from salicin, the crystallizable principle of willow-bark. But are we, on this account, independent of the vitality of plants? Certainly not, we have only substituted one plant for another. The cases which I have just given you are only chemical transformations of one vegetable substance into another. If you compare the composition of the substances transformed with that of the products obtained, you will at once perceive that these changes invariably consist in the removal from the original compound of a certain quantity of carbon, of hydrogen, and even oxygen, frequently eliminated in the form of carbonic acid and water; that they consist in a simplification of the original compound, which, being generally of a complicated nature, is broken up into atoms of less intricate composition.

Oleic acid	C_{36}	H_{34}	O_4
Œnanthic acid	C_{18}	H_{18}	O_4
Sugar	C_{12}	H_{12}	O_{12}
Valerianic acid	C_{10}	H_{10}	O_4
Butyric acid	C_8	H_8	O_4
Salicin	C_{26}	H_{18}	O_{14}
Spirea oil	C_{14}	H_6	O_4

In all these transformations we descend from more complex to simpler compounds.

But it is not difficult to show that frequently we move in the opposite direction; that we actually can rise from the simple to the complex; that a variety of substances of vegetable and animal origin have in reality been compounded, if I may use this expression, from their very elements. Among these may be mentioned oxalic acid, the normal constituent of several varieties of oxalis, rumex, and rheum, and the frequent product of the animal organism; formic acid, the acid excreted by certain species of ants; urea, the crystalline principle of the urine of the mammalia; and, lastly, acetic acid, which, in combination with potassa or lime, is present in the juice of a great many plants, and which the vegetable kingdom furnishes us more indirectly in the destructive distillation of wood, or in the acidification of alcoholic liquors, derived from sugar by the process of fermentation. All these and many other compounds, originally obtained with the aid of the vegetable or animal economy, are now produced without their assistance, by processes perfectly analogous to those which we are in the daily habit of performing in mineral chemistry. But how are these formations accomplished? I need not tell you, Gentlemen, that such remarkable results cannot be obtained simply by bringing the elements concerned into contact. By placing diamond into a mixture of hydrogen and oxygen, you will never produce either oxalic, formic, or acetic acid. These triumphs of constructive chemistry can only be reached through a series of circuitous processes. We have to follow the path whith is indicated to us by the behaviour of the plant itself. The vegetable organism rejects the free nitrogen or oxygen of the atmosphere with which it is surrounded as unfit for its use; free carbon and free hydrogen are never presented to it in nature; but the combinations which these elements produce with each other—carbonic acid, water, ammonia—these are the materials with which it works. Out of these simple materials it forms the endless variety of principles which chemists have discovered, and are daily discovering, in the study of vegetable structures. Now, we are ignorant of the means by which this is effected; but the recognition of the nature of the materials is not the less important.

In artificially building up these proximate principles, we have to avail ourselves of the simplest compounds of their elements, which are readily obtained. A careful study of the habits and propensities of these compounds has furnished us the means of producing further combinations, more complicated than the primary ones.—Some examples will illustrate this mode of proceeding.

In one of my future lectures I shall have to describe to you the circumstances under which carbon may be made to combine with the nitrogen of the atmosphere, the result of this combination being cyanogen, or bicarbide of nitrogen. Cyanogen, when placed in contact with water, gives rise to a

decomposition of the latter, the hydrogen of which uniting with the nitrogen produces ammonia, whilst the oxygen converts the carbon into oxalic acid; again, cyanogen may be united with potassium, forming the well-known substance cyanide of potassium, which may be likewise made to decompose with water. The nitrogen and carbon, as in the former case, combine respectively with hydrogen and oxygen, but we have at our disposal an additional element for the decomposition of water, namely, potassium. This is converted into oxide of potassium, and the hydrogen of the water, instead of being liberated, joins the carbon and oxygen, and thus formic acid instead of oxalic is obtained.

Cyanide of potassium, when fused with substances rich in oxygen, undergoes a further change; it is oxidised. The result of this change is the formation of a new substance, called oxycyanide of potassium, cyanate of potassa. The potassium in this salt is replaceable by other metals; by silver, for instance, or calcium, or sodium. You may replace it by ammonium. This simple series of changes places in your hands one of the most interesting products of the animal organism, urea. I have given to you only the mode of performing these changes. I might have delineated to you the exact quantitative proportions in which these metamorphoses occur; but as we shall shortly return to a detailed study of these compounds, I will confine myself to directing your attention to the formulæ of these substances, which exhibit to you at a glance how, from the very elements, we have risen to substances more and more complicated.

Carbon	C
Nitrogen	N
Cyanogen	C_2 N
Oxalic acid	C_2 O_3, HO
Formic acid	C_2 HO_3, HO
Urea	C_2 H_4 N_2 O_2

Let me give you another example, which is even perhaps more striking—the artificial construction of acetic acid; and as I may perhaps not find time to return to this question, we will examine the subject somewhat in detail. A current of sulphur vapour is passed over ignited carbon, when combination takes place, the result being bisulphide of carbon—an extremely volatile liquid, remarkable for its power of refracting light, and whose many and daily increasing applications have gained for it general attention.

C	+	2S	=	C S_2
Carbon.		Sulphur.		Bisulphide of Carbon.

When exposed to the action of chlorine at a high temperature the sulphide is decomposed, and we obtain another liquid, the bichloride of carbon, corresponding in composition to the bisulphide.

C S_2	+	4 Cl	=	C Cl_2	+	2 S Cl
Bisulphide of carbon.		Chlorine.		Bichloride of carbon.		Chloride of sulphur.

Submitted to the influence of a powerful heat, this bichloride splits into free chlorine and several other chlorides of carbon, amongst which the chloride of carbon *par excellence*, the solid sesquichloride discovered by Mr. Faraday under very different circumstances, claims our special attention.

3 C Cl_2	=	C_2 Cl_3	+	C Cl	+	Cl_2
Bichloride of carbon.		Sesquichloride of carbon.		Protochloride of carbon.		Chlorine.

If you expose these crystals covered with water, in which they are insoluble, to the direct action of sunlight, you will find that they gradually disappear, leaving an exceedingly sour liquid, which contains two acids, namely, hydrochloric acid and a substance very closely resembling acetic acid, but containing chlorine in the place of hydrogen; two atoms of the solid chloride of carbon and four atoms of water contain the elements of three atoms of hydrochloric acid and one atom of chloracetic acid.

$2C_2$ Cl_3	+	4 HO	=	3H Cl	+	C_4 Cl_3 O_3, HO
Sesquichloride of carbon.		Water.		Hydrochloric acid.		Chloracetic acid.

A simple substitution of hydrogen for chlorine completes this series of chemical re-actions resulting in the artificial construction of acetic acid. This substitution is effected by potassium (to moderate the action, an amalgam of this metal is generally employed), which, seizing as it were the chlorine, and simultaneously decomposing water, removes the former, whose place is forthwith taken by the liberated hydrogen, thus forming pure acetic acid.

C_4 Cl_3 O_3, HO	+	6 K	+	3 HO	=	C_4 H_3 O_3, HO	+	3 K Cl + 3 KO
Chloracetic acid.		Potassium.		Water.		Acetic acid.		Chloride of Potassium. tassa.

And thus, remarkably enough, we meet, after nearly half a century, with a new result, emanating from Davy's grand discovery, a fact which is particularly interesting, standing as we do on the very ground on which this discovery was made.

Acetic acid by no means concludes this remarkable series of constructive metamorphoses. When this acid is combined with alkaline bases, and submitted in the form of a salt to the action of heat, we obtain a new body in the form of a transparent, very inflammable liquid, called acetone, of a more complicated composition than acetic acid itself, while an alkaline carbonate remains behind.

2(BaO, C_4 H_3 O_3)	=	C_6 H_6 O_2	+	2(BaO, CO_2)
Acetate of baryta.		Acetone.		Carbonate of baryta.

Submitted to the action of sulphuric acid, acetone loses the elements of water, while a new complication takes place, not less than three atoms of this dehydrated acetone coalescing as it were in the new product of the re-action, which is known by the name of mesitilol, and which contains not less than eighteen equivalents of carbon.

$3C_6$ H_6 O_2	=	C_{18} H_{12}	+	6HO
Acetone.		Mesitilol.		Water.

By treating this compound with fuming nitric acid, you succeed in introducing the elements of hyponitric acid into the place of hydrogen, and obtain dinitromesitilol—

C_{18} H_{12}	+	2 NO_5	=	C_{18} H_{10} N_2 O_8	+	2 HO
Mesitilol.		Nitric acid.		Dinitromesitilol.		Water.

which, lastly, when submitted to the action of sulphuretted hydrogen, by virtue of a most curious process, with the details of which you will become acquainted by and by, is converted into nitromesidine, an organic body forming beautiful salts with the acids, and exhibiting, in its general character, the greatest analogy with those wonderful substances manufactured by the organism of plants, the vegetable alkaloids.

C_{18} H_{10} N_2 O_8	+	6 HS	=	C_{18} H_{12} N_2 O_4	+	4HO	+	S_6
Dinitromesitilol.		Sulphuretted hydrogen.		Nitromesidine.		Water.		Sulphur.

Now let us glance once more at the series of substances which we have built up from the very elements, commencing with carbon and terminating with nitromesidine.

Carbon	C
Bisulphide of carbon . .	C S_2
Bichloride of carbon . .	C Cl_2
Sesquichloride of carbon .	C_2 Cl_3
Chloracetic acid	C_4 Cl_3 O_3, HO
Acetic acid	C_4 H_3 O_3, HO
Acetone	C_6 H_6 O_2
Mesitilol	C_{18} H_{12}
Dinitromesitilol	C_{18} H_{10} N_2 O_8
Nitromesidine	C_{18} H_{12} N_2 O_4

A better illustration of the constructive powers of modern chemistry could scarcely be imagined.

Results like these fully establish the hope, that the progress of chemical science will gradually teach us artificially to produce the majority, if not all, of the substances which are elaborated under the influence of vitality in plants and animals. The same occurrence probably will take place in vegetable and animal chemistry which has been witnessed with regard to minerals. How great a number of minerals have never been produced! It is only within the last few years that the labours of chemists have been engaged in this line of inquiry, in which considerable progress has been already made by the united exertions of men like Bunsen, Ebelmen, and Senarmont. The number of artificial minerals has been greatly increased, because the circumstances have been carefully examined under which these substances are formed in nature. In a like manner the daily increased attention paid to vegetable and animal chemistry cannot fail to produce shortly a similar result.

But even now we see clearly that a distinction of inorganic and organic compounds, on the ground that the latter are producible only by the aid of vital processes, is perfectly inadmissible. Compounds which but yesterday belonged to organic chemistry may become inorganic to-morrow.

All other attempts to draw a line of demarcation between inorganic and organic chemistry have proved equally unsuccessful. It is stated that the composition of organic compounds is generally far more complex than that of inorganic substances. If we admit that such is generally the case, we must not forget that, in pyroxylic spirit, in methylamine, in aldehyde, and in ordinary alcohol, we possess a series of substances hitherto exclusively produced with the co-operation of plants which are remarkable for their simplicity.

Pyroxylic spirit	$C_2 H_4 O_2$
Methylamine	$C_2 H_5 N$
Aldehyde	$C_4 H_4 O_2$
Alcohol	$C_4 H_6 O_2$

whilst in common alum,

Alum . $Al_2 O_3, 3SO_3, KO, SO_3 + 24HO$

we have a compound containing not less than 71 individual atoms, not to speak of the highly complex expressions mineralogists are in the habit of presenting us with, such as that of the potassa harmatome, or of the mineral tourmaline, which are respectively represented by the monster formula on the board.

Potassa Harmatome .	$KO, SiO_2 + 2(CaO, SiO_2) + 4(Al_2 O_3\ 3SiO_2) + 18HO.$
Tourmaline	$4\,Na\,O, 12\,MgO\ 3\,Fe_2 O_3, 29Al_2 O_3, 48SiO_2\ 4BoO_3.$

Again, organic compounds are described as being very readily altered, their equilibrium being very easily disturbed by the slightest external influences. But, is it possible to imagine less stable substances than those fearful compounds of iodine and chlorine with nitrogen, which split into their constituents sometimes, as it would almost appear, spontaneously? On the other hand, some bodies, hitherto exclusively obtained from vegetable or animal structures, present a degree of persistence and stability which is truly marvellous. Napthalin and paranaphthalin, so generally appearing among the products of the distillation of vegetable matter, owe their formation to the very circumstances which destroy some of the most energetic compounds of mineral chemistry.

I should tire you if I were to enumerate all the characters of organic compounds which have been adduced as marks of distinction, but which, in reality, are found to fail; suffice it to say, that a limit between inorganic and organic compounds does not exist; that the separation of chemical science into inorganic and organic is by no means founded in nature, but that it is an artificial division, which, first made at a comparatively early period of the development of chemistry, is now retained for the sake of convenience only.

There is, in fact, no difference in the general properties of mineral substances on the one hand, and of vegetable and animal on the other. Whether you consider their physical or chemical characters, you will find that both kinds of bodies are governed by the same laws. In both kinds you observe the three states of aggregation. They are capable of existing in the form of solids, liquids, and gases, and the temperatures at which the transition from one state to the other ensues, their fusing points, their boiling points, are equally fixed. If we meet with many vegetable or animal compounds, which are destroyed before they are converted into gases, or even before they are liquefied, how large is the number of mineral substances which have been observed in only one or two states? In fact, the great majority are known to exist only as solids.

The faculty of assuming regular geometric forms, while passing from the liquid to the solid state, is equally possessed by both classes; they may be crystallised by fusion or by solution. There are so many familiar instances of this kind that it is scarcely necessary to call your attention to the specimens of spermaceti, (crystallised by fusion), of tartaric acid, of citric acid, and of sugar, which are exhibited on the table. Moreover, the crystalline forms which are thus produced appear indiscriminately among mineral and among vegetable and animal substances. You could not obtain, perhaps, a better illustration of this fact than by comparing these crystals of alum, the composition of which I pointed out to you in a former part of this lecture, with those of codeine, one of the alkaloids of opium containing only carbon, hydrogen, nitrogen, and oxygen; both substances crystallize in regular octahedra.

If many organic compounds, especially the more immediate constituents of vegetable and animal structures, such as albumin and fibrin, have never been crystallised, I need not remind you of the variety of mineral substances which are entirely destitute of crystallisation, such as many metallic oxides, the compounds of phosphorus with boron and nitrogen, the various glasses, porcelain, etc.

Again, the chemical characters are essentially the same in substances belonging either to the mineral or to the vegetable and animal kingdoms, the same constancy, the same laws of composition prevail in both classes. The rough classification frequently adopted for mineral compounds of acids, bases, and indifferent substances, founded as it is upon the behaviour of these compounds towards each other, is equally applicable to the proximate constituents occurring in plants and animals. These proximate constituents are likewise acids, bases, and indifferent substances. The vegetable acids combine indiscriminately with mineral and with vegetable and animal bases, whilst the latter unite just as well with the acids of the mineral kingdom. On addition of citric acid to nitrite of potassa, you displace the nitrous acid, which is evolved in the form of red fumes; in a solution of chloride of potassium, tartaric acid produces the well-known precipitate of bitartrate of potassa, the hydrochloric acid being liberated. On the other hand there are vegetable alkaloids capable of displacing the strongest mineral bases from their saline combinations. A solution of tetrethylammonium not only precipitates the oxides of iron, nickel, copper, exactly as potassa would do, but even baryta and strontia; and under certain circumstances it even displaces potassa itself, which, as is well known, is one of the the strongest of mineral bases.

I am almost afraid, gentlemen, you will object to me, that in denying the distinction of inorganic and organic compounds, I lose the very ground upon which I stand, and that any other title for the lectures I intend to give you would have been better than the one which I have chosen.

But you will recollect, that, while denying the distinction on rigorous scientific grounds, I admitted already the great convenience of this classification. Indeed, the division into inorganic and organic chemistry will be always retained, if only for the purposes of instruction. The proximate constituents of plants and animals, simple as their composition may appear from their generally containing only four elements, present such a diversity of constitution, such a variety in their properties, such a complexity in their general behaviour, that the student who engages in this department should be prepared by a previous study of the simpler relations of inorganic nature.

The preceding remarks, although failing to establish a definite boundary-line between inorganic and organic chemistry, have nevertheless served, I hope, to limit to a certain extent the department which we are going to treat, and to familiarize you in some measure with the subjects which you may expect in the following lectures.

Were I called upon to express myself still more explicitly, I would say, I will give you "the chemistry of carbon and its compounds." In consequence of the never-failing presence of this element in all vegetable and animal structures, the number of the compounds of carbon is greater than that of any other element; perhaps greater than that of all the other elements taken together. Owing to the fact of carbon being the characteristic constituent of the organs of plants and animals; owing to the number of its compounds; owing to the diversity, at the same time, and similarity of these compounds, and their peculiar differences from most other chemical substances, the history of this element deserves to be traced apart from all the rest.

On having the subject thus defined, you might perhaps expect a description of carbon itself, and of its simplest compounds, such as carbonic oxide, carbonic acid, bisulphide of carbon, etc., as the starting point of our inquiries. However appropriate and interesting such an introduction might be, the properties of these substances are already sufficiently known to you, being invariably described together with the compounds of the other elements. Moreover, our time is so limited, that it will be more expedient to proceed at once to the study of more complicated carbon-compounds.

CLINICAL LECTURE
ON THE CONNEXION OF HEMIPLEGIA AND CHOREA
WITH
VALVULAR DISEASES OF THE HEART.

DELIVERED AT

St. Bartholomew's Hospital.

BY GEORGE BURROWS, M.D., F.R.S.

Physician to St. Bartholomew's Hospital.

[Reported by Mr. EDWARD JAMES.]

GENTLEMEN,—The existence of some connexion between diseases of the heart and diseases of the brain has been long acknowledged by pathologists; but the mode in which the diseased heart acts injuriously upon the brain has been variously accounted for by different persons.

In the year 1846, in a work on "The Disorders of the Cerebral Circulation," I published a Table, showing that no less than three-fifths of the cases of apoplexy and hemiplegia will be found to be associated with structural disease of the heart; and I then endeavoured to give some probable explanation of the manner in which the diseased heart brings about the disorder of the cerebral circulation which leads to the apoplexy or hemiplegia. Still, both at that time and subsequently, I often felt that there was a class of cases of hemiplegia connected with valvular disease of the heart which the explanations that I there offered did not satisfactorily account for. I allude particularly to a class of cases of hemiplegia occurring in young and often delicate or cachectic persons, who would generally be deemed least predisposed to such serious cerebral affections, and who, previously to such attacks, had had no symptoms referrible to the brain. Such cases from time to time present themselves to our notice in this hospital and elsewhere; and for many years it has been my invariable practice, whenever a sudden attack of hemiplegia occurred to an individual under thirty years of age, to suspect disease of the heart, and immediately to apply the stethoscope to the cardiac region; and it has seldom happened in such cases that the examination has not revealed the existence of valvular disease.

Within the last twelve months, a new and clearer light has been thrown upon the pathology of these hitherto obscure cases of hemiplegia, through the important discovery, made by Dr. Kirkes, and communicated to the Royal Medico-Chirurgical Society, that hemiplegia and disorganisation of the brain are frequently the direct consequences of obstruction to the passage of the blood through one of the cerebral arteries, (most frequently one of the middle cerebral arteries,) by the impaction of a granule or portion of fibrine in its channel. He has also rendered it probable—nay, almost certain—that the portion of fibrine so situated has been detached from the diseased valves of the heart, and carried into the aorta, and thence onwards in the course of the circulation to the place of its lodgment in the middle cerebral artery. For further information respecting this discovery, which in all its ramifications opens a completely new field of pathological research, I must refer you to Dr. Kirkes's paper, published in the last volume of the Transactions of the Medico-Chirurgical Society. My object to-day in bringing this subject before you is to call your attention to some cases which are or have been recently under your notice in my wards, and which have afforded most convincing confirmation, not only of the frequent connexion between sudden hemiplegia and valvular disease of the heart, but also of the correctness of Dr. Kirkes's explanation of the pathology of such cases.

The first case is that of

George Beresford, aged 11, admitted into John Ward on the 20th of October, 1852. His aspect was languid; complexion dark; skin warm and moist; body emaciated; chest prominent; pulse 96, small, soft, irregular; tongue moist, slightly furred; bowels regular; urine natural; complains of headache, affecting him most in the morning; sleeps badly; has incomplete hemiplegia of the left side; has some cough, and expectorates a tawny, tenacious mucus, mixed with air-bubbles. His fingers are clubbed, and the nails adunque.

Auscultation.—No undue dulness in the præcordial region; heart's impulse excessive, it is seen as well as felt; its action is irregular and intermits; there is a loud systolic murmur at the apex, but not so loud at the base, where the second sound is loud and flapping, not to be detected in the aorta.

Auscultation, right side.—There is loud breathing and large crepitation, amounting almost to gurgling, with a peculiar click in the upper lobe. On the left side the breathing is loud and coarse, almost overwhelmed by the heart's sound. Behind, right side: Some rhonchus, sibilus, creaking, and large crepitation. Left side: Only rhonchus; heart's sounds are transmitted to both sides; slight dulness on percussion in right subclavian region.

History.—He lives with his parents in London; when walking eleven weeks since with his cousin his mouth was suddenly drawn to the right side, and he lost the use of the left arm, partially of the left leg; he said to his cousin he felt as if he were silly; he was able with some difficulty to reach his home; when he arrived there he complained of pain in his head, and was sick; was put to bed; was delirious; and he continued thus for two days, when he was admitted into the hospital, under the care of Dr. Hue. Whilst in the hospital his mind was so deranged that he was removed to a separate ward. Having almost recovered the use of his arm and leg, he was discharged at the expiration of three weeks. He then continued under the care of Mr. Wood, the resident apothecary, for a fortnight, during which time he was able to walk to and from the hospital and his home, a distance of a quarter of a mile, when, having almost recovered the use of his limbs, the pain in his head having much decreased, and his mind having become more collected, he went into the country, where he remained three weeks. On his return his head was again affected, so that he wandered much, and at times talked very incoherently; at the same time, too, he had much difficulty of breathing, with pain in the chest, and cough. About a week after his return his cough continued to increase, and he was altogether getting worse up to the day he was admitted. Previously to the hemiplegia he was always ailing, having a bad appetite, being weak, and constantly complaining of pain in the left side, and frequently of a dull aching pain in the head. He was inactive, and incapable of retaining what he learned at school.

Remarks.—Here was a clear history of sudden hemiplegia, occurring in a boy with an irregular and intermitting pulse, and having symptoms of pulmonary and cardiac disease. What was the diagnosis? The chronic pulmonary disease was probably tubercular. The cardiac auscultation revealed the existence of disease of the mitral valve, with hypertrophy of the heart. But how to account for the sudden attack of hemiplegia, a disease which is very rare in children of his age. The first idea was, that it might be the result of tubercular disease in the brain; but that generally sets in with convulsions, followed by loss of power. Such symptoms were absent in this case. Remembering, then, that he had valvular disease of his heart, and bearing Dr. Kirkes's paper in mind, it seemed most probable that it was a case illustrating his views, and that the hemiplegia was dependent upon the sudden impaction of a mass of fibrine in the right middle cerebral artery, thus cutting off the supply of nutriment from a certain portion of the brain.

The treatment adopted was occasional counter-irritation to the chest; various expectorants and sedatives to allay cough. The cod-liver oil and nutritious diet to support his wasted frame, and ultimately some wine daily to sustain his flagging heart.

He remained in John Ward under observation for six weeks, during which period the auscultatory signs of diseased mitral valve, as well as of the chronic pulmonary disease, suspected to be tubercular, were frequently verified; but he gradually sank and died, Dec. 5th, 1852.

EXAMINATION THIRTY-FIVE HOURS POST MORTEM.

Lower half of body and left arm anasarcous; some œdema of the scalp. The *membranes* of the brain healthy, slightly blood-stained from decomposition.

Brain healthy in its general appearance and texture, and freely supplied with blood, though, at the same time, softer than natural, (probably from decomposition.)

The *right corpus striatum* and neighbouring portions of the lower part of the middle cerebral hemisphere were much softer than other parts of the brain, breaking down, on pressure, into a kind of pulp, from which a thick, creamy fluid exuded. Though thus softened, this portion of the brain substance was not apparently much less vascular than

other parts, and there seemed a fair amount of blood in most of its small vessels. On tracing the vessels of the part to the *right middle cerebral artery*, there, as was anticipated, at or about half an inch from its origin, this vessel was plugged up by a firm nodular mass about the size of a hempseed, which formed a very manifest projection on the line of the vessel; the under part of this plug, which was evidently composed of a fibrinous material, was dark and blood-stained; the upper part firm, white, quite calcareous, and gritty. On laying open the vessel, its canal was found almost, if not quite, blocked up by the coagulum which adhered rather firmly to the interior; it consisted of partly firm and partly soft and reddish fibrine, in the midst of which were numerous grits of calcareous matter.

With the exception of the coagulum in the right middle cerebral, there was no disease of the arteries of the brain.

Cerebral Sinuses healthy, and contained recent coagula.

Heart generally and greatly enlarged; all the valves healthy except the mitral, which was extensively diseased, especially along its free border, and about the attachment of the tendinous cords; attached to the auricular surface of the free edge were several long narrow pedicles of old whitish fibrine, more or less degenerated into a calcareous material; one or two masses were about half an inch long; between them, along the same line, were numerous smaller deposits and granules adherent to the edge of the valve. About the middle of the aortic cusp of the mitral was a large ulcerated opening, extending entirely through the thickness of the valve, but closed up by newly-deposited fibrine. The tendinous cords were much diseased, most of them thickened, matted together, and roughened by deposits of whitish fibrine; several were ulcerated across, the free ends hanging loose, and studded with little granules of fibrine. The lining membrane of the posterior part of the left auricle was roughened by small fleshy-looking growths, slightly elevated above the surface, and here and there intermingled with distinct granular deposits.

Aorta narrow; all the great arterial trunks unobstructed. The large *venous* trunks contained only recent coagula.

Lungs congested; several masses of pulmonary apoplexy, also several lobules, collapsed, devoid of air, and of a darker colour than the surrounding crepitant portions. The general texture of the lungs appeared healthy. No tubercular deposits, but the bronchial tubes contained large quantities of mucus.

Spleen large and congested, the surface puckered and fissured in places; at the bottom of one of the fissures was a firm bright yellow mass about the size of a pea, surrounded by a dark red halo.

Kidneys much congested, especially at the junction of the cortical and medullary portions; there were also one or two ecchymosed blotches on the surface, the cortical parts of which were buff-coloured, the circumference dark-red; there were also several depressions and fissures, at the bottom of one of which was a buff-coloured mass. The surface of the gland generally had a spotted appearance, from dots of intense congestion.

Nothing particular observed in the other viscera.

There are several points of great interest in these changes of structure:—1st. The softening of the brain. 2nd. The impaction of a plug in the artery supplying that part of the brain. 3rd. The disease of the mitral valve. 4th. The character of the plug in the middle cerebral artery, viz., that it was a mass of fibrine which had undergone a calcareous degeneration,—a change which some of the deposits on the valves had also undergone. 5th. That there was no other disease of the vessels of the brain. This case proves more strongly than any yet brought forward the correctness of Dr. Kirkes's views; in most of these cases there has only been a mass of fibrine found in the artery, and other masses on the valves; but here the fibrine had undergone similar changes to that in the valves, and there was no disease of the vessels; in fact, everything seems to point out that the mass could have come from no other source than the deposits on the mitral valve.

The diagnosis, therefore, as far as the hemiplegia is concerned, proved correct. There was, however, no tubercular disease of the lungs, but there was a condition of those organs which would give rise to most of the symptoms and signs caused by tubercular infiltration of the lungs, viz., condensation of the tissue by pulmonary apoplexy: collapse of the vesicles, with profuse secretion of mucus into the bronchial tubes; the external signs, the wasted frame, the prominent chest, the clubbed fingers, the adunque nails, seemed also to indicate tubercular disease.

With these cases of obstruction of the arteries there have been found always masses of coagulated and decolorised fibrine in the spleen, kidneys, etc.; and it is Dr. Kirkes's opinion, that these have been also detached from the valves, carried into the splenic, renal arteries, etc., have been arrested in their course, obstructed the circulation of the blood, and caused the coagulation of the fibrine. The *post-mortem* examination above given is most strong on these points.

Next let us give our attention to another case of hemiphlegia and diseased heart.

Eliza Cushway, aged 19, admitted November 17th, 1852, and yet remaining in the hospital; her aspect delicate, complexion rather pale, lips pallid, skin warm and moist; pulse 72, regular, and of moderate volume; catamenia regular. There is complete loss of power in the left arm and leg, with a pricking sensation on being touched; the action of the left eye in opening and closing does not correspond to the right; the pupil of the right eye does not act so freely as that of the left; at the same time it is slightly intolerant of light; she has no pain, but feels very weak; the fingers of the left hand are flexed.

History.—Is a needlewoman, and says that she has always had delicate health. About two or three years ago she was attacked by what her medical attendant called "nervous fever," but she cannot recollect anything about it. Seven weeks ago, on awaking one morning, she found she had a pain at the back of the head; at the same time she was told by her mother that the right side of her face was drawn up; there was also partial loss of sight of the left eye, which prevented her seeing anything unless it were close to her. She found also that she had lost the power of motion and sensation in the left side, so that she could not move her arm or leg to raise herself in bed; there was no pain, with the exception of the headache. Medical advice was obtained, and blisters were applied, first between the scapulæ, and afterwards at the nape of the neck, and she also took medicine. She recovered the sight of the left eye two or three days after the first attack, the power of movement of the muscles of the left side of the face improved gradually; but now, when she laughs, there is a slight drawing up of the right side. Three or four days after the attack she began to recover the sensation of the left side, which is now far from perfect.

Here, again, was a delicate girl, aged 19, following the sedentary occupation of a needlewoman, attacked with sudden hemiplegia while she was asleep. All this is very different from the usual mode in which hemiplegia occurs, and, according to general opinion, the girl was a most unlikely subject for hemiplegia. My suspicions were, as upon many similar occasions, immediately drawn to the heart, and auscultation detected a harsh systolic murmur at the apex, significant of deposit on the mitral valves.

Guided by the information contained in Dr. Kirkes's paper, and by more recent experience from the case just related and commented upon, my diagnosis, made known to you at the bedside, was, that this was another victim to the sad consequences of valvular disease of the heart, and that probably some fibrinous particles had, at the time of the hemiplegia, been detached from the mitral valve, carried into the circulation, and arrested in the right middle cerebral artery. The immediate consequence had been, arrest of nutrition, and loss of function of a portion of the right hemisphere of the brain, and hence the hemiplegia. In this case, as in *Case* 1, it is probable that the youth of the patient has permitted some nutrition of the affected portion of brain to be carried on by anastamosing branches, and hence, since her admission, there has been a gradual restoration of power to the palsied parts.

Her treatment has consisted of quinine, good diet, occasional purgatives, and quiet. Her improvement continues; she has gained colour to her complexion, flesh, and strength. She can now walk with assistance. The movements of the upper arm are somewhat improved; the condition of the forearm and hand nearly the same. The systolic murmur at the apex remains; and she may, therefore, yet have further mischief in the brain, or she may have some anasarca, or she may die from disease in the lung.

In Dr. Kirkes's paper, in "Transactions of Medical and Chirurgical Society," you will find a history of a case with very analogous symptoms, which had been under my care, and with changes in the brain and heart of much the same kind.

If, therefore, hemiplegia comes on in a young person or child of delicate habit, and without any history of exertion or excess, immediately examine for valvular disease of the heart; if that exists, your opinion would be, that hemiplegia was dependent upon such obstruction of the cerebral artery as I have just described.

I should now proceed, in fulfilment of my promise, to give you an account of chorea, supervening on or complicated with valvular disease of the heart; and will first direct your attention to the case of

Mary A. Rogers, aged 18, admitted into Faith Ward December, 1852, with chorea, partial hemiplegia, and loud systolic murmur at the apex of the heart.

This patient is still under observation, and offers an example of the same kind of cardiac disease as the former two, but here the hemiplegia is associated with those irregular movements termed chorea. This case probably forms a connecting link between hemiplegia dependent upon obstruction in a cerebral artery, and chorea supervening after rheumatic affections of the heart, the pathology of which has hitherto been a mystery in the great majority of instances. On a future occasion, I will bring a series of cases of chorea under your notice.

ORIGINAL COMMUNICATIONS.

CASES OF COMPLICATED POLYPUS UTERI.

WITH REMARKS.

By FRANCIS H. RAMSBOTHAM, M.D., F.R.C.P.

Consulting Physician in Obstetric Cases to the London Hospital.

(Concluded from page 87.)

The next two cases would appear to be instances of a fleshy tubercle projecting internally, and protruding into the vagina, like the one which I have last described. The last case I shall give is a complication of polypus and carcinoma.

Case 21.—On December 2nd, 1844, I was requested by a medical friend to see with him the wife of a tradesman in the city, aged 35, who had borne two children, the younger seven years before, and who had never been pregnant since. The catamenia had been quite natural till the preceding July, when irregular hæmorrhage occurred, but not profusely, nor indeed to such an extent as to occasion her alarm. In August she discovered a circumscribed hard tumour at the lower part of the abdomen, and consulted an eminent obstetrical physician on the subject. He gave it as his opinion that the tumour was a solid enlarged uterus. She continued to increase in size slowly, with frequent discharges of blood, until the day before I saw her, when she was seized with powerful, bearing down pains, and, during the night, a fleshy mass protruded external to the vulva. She was sallow, and her countenance bore very much of the expression of malignant uterine disease. I found the uterus as large as one at the end of six months of pregnancy, and a fleshy substance, highly putrid, the size of a large orange, hanging out of the vagina. It was evident that this mass was attached within the uterus, although the os uteri could not be felt; for a continuation of it filled the vagina, and could be traced nearly up to the pelvic brim, of the same thickness throughout. I passed a ligature around it, as high as I could, by means of the double canula, and drew it tight. It soon cut through the sloughy mass, and the instrument came away the next day, bringing with it all the tumour below the ligature; still there was a considerable portion to be felt remaining. There was no return of hæmorrhage, but large pieces of sloughy matter continued to come away for a week, during which time the uterus gradually diminished in size. She became the subject of fever and tympanitic abdomen while this process was going on; but on the eighth day, when the whole seemed to have come away, she began to mend. The diminution in the size of the uterus was so rapid, that on the 20th it could no longer be felt above the pubes. The os uteri would now admit the finger; and within it, towards the posterior part of the cervix and body, a large, irregular surface could be felt, which had evidently been the point of connexion between the healthy and diseased structures. There was some leucorrhœa; on the 27th, however, she was quite free from any discharge. On February 17th, she was looking comparatively well; the catamenia had appeared twice since the tumour came away, each time lasting five days, the interval between the two eruptions being exactly a month. The os uteri was rather open and soft, but healthy in structure. No part of the original tumour could be felt, but towards the posterior face of the body of the uterus a tubercle larger than a walnut could be easily discovered. For six years she enjoyed a very fair share of health, when, alarming hæmorrhages having occurred, she was induced to apply to another physician. This gentleman informs me that he found the uterus very large, and discovered the tubercle at the posterior part of its body, which I had previously felt, but much larger than when I was in attendance. The os uteri was dilated by means of sponge tents, and soon a fleshy mass protruded through it. This was taken away by ligature, and, within a few months, two others appeared successively in the same situation, both of which were removed by the same means. One of these was partially sphacelated and soft; it had suppurated, and contained an ounce and a half or two ounces of pus within its substance. After that time her health became again greatly re-established; but another tumour came down partially through the uterine mouth, and she died rapidly from a sudden gush of blood which took place about three months ago. There can be no doubt, I think, that these tumours were all instances of the true fleshy tubercle of the uterus, projecting inwards.

Case 22.—On June 2, 1830, assisted by my father, I passed, by means of the double canula, a thick ligature around a hard, smooth, globular tumour, of the size of two fists doubled over each other, that almost filled the cavity of the pelvis, for a patient in the Strand. She was 43 years old, married, but never pregnant. She was reduced to a state of great emaciation, and was losing so much blood day by day, that it was evident, unless that drain could be checked, her life would soon be sacrificed. She had been suffering from pain and hæmorrhage for about two years, and a hard, irregular, knotty tumour was to be felt at the lower part of the abdomen, which had first been discovered about twelve months before, and which bore all the characteristics of a tuberculated uterus. The whole mass was as large as a uterus of between six and seven months' pregnancy. At the time of the operation, the os uteri was too high to be felt; and the stem, if the tumour could be said to possess a stem, was exceedingly thick, nevertheless the ligature took a satisfactory hold; and the bleeding ceased upon its being drawn tight. There was no pain experienced on strangulating the tumour, nor on tightening the string the day following; but on the 4th, violent pain in the abdomen, accompanied by considerable tumefaction, came on. These symptoms were relieved by leeching and purging; but they were not removed, so that on the 5th it was thought right to take away the ligature. Some more leeches were applied with great benefit. Inability to evacuate the bladder, however, supervened, and the constant use of the catheter was required for a fortnight. During this interval the tumour sloughed, and a large portion hung out of the external parts in a sphacelated condition. In about three weeks from the operation, that portion of the mass below where the ligature had been applied, entirely separated, a part being still to be felt in the vagina. Her system was gradually giving way, while this process of decay was going on; the skin over the sacrum sloughed; and she died on July 1st. The late Sir Astley Cooper saw her twice with my father and myself, while the tumour was decaying; but he was unwilling to interfere with the regular course that nature had set up. We all three looked upon the case as one of a fleshy tubercle, which had projected internally; and we believed that others were embedded in the substance of the uterus, and that some had protruded on the outer surface. As the patient was of the Jewish persuasion, a *post-mortem* examination could not be obtained.

Although the combination of polypus with uterine tubercles is a complication of disease far from uncommon, it is a very rare thing to find polypus co-existing with carcinoma, or other malignant disease of the womb. The following is the only case of which I have any record, where I removed a polypus from a uterus affected with cancerous ulceration.

Case 23.—Towards the close of June, 1828, I was consulted respecting Mrs. A., living in the neighbourhood of the London Hospital, about 46 years old, a widow, who had had one child many years before. She first perceived symptoms of uterine disease about seven years previously;

and she had been confined to bed for two months, suffering from extreme pain, frequent hæmorrhages, and constant fetid discharge. She was very much debilitated, and her countenance was expressive of malignant uterine disease. About two inches within the vagina, there was a hard scirrhous ring, running entirely around the canal, which would not admit the passage of more than one finger. Above that the coats of the vagina were tuberculated and ulcerated; and lying within the canal there was a solid fleshy tumour apparently as large as a pullet's egg. The os uteri could not be reached. Per rectum the same tumour could be felt distinctly. Under the belief that the hæmorrhage—the immediate cause of danger—proceeded in a great measure from this tumour, which was presumed to be of the polypous kind, it was agreed that a ligature should be placed around it, and that it should be strangulated. I tied it by means of the double canula without any great difficulty on the 29th. The string was tightened daily; the constricted ring gradually relaxed, so that on July 2nd, it readily admitted three fingers. The polypus, with the canula attached, came away 160 hours after the performance of the operation; it was quite putrid and shreddy, and appeared to have lost at least half its bulk. Two fingers could now be passed, without trouble, up to the pelvic brim, and the os and cervix uteri were discovered to be very extensively destroyed by the ulcerative process. The hæmorrhage, as was anticipated, was considerably reduced as soon as the polypus was strangulated; and it is curious that the patient suffered less pain during the time that the instrument remained within the vagina than she had done for some months previously. She rallied somewhat for a short time; but the malignant disease continued its devastating ravages, and she expired on the 5th of October. Had I been aware at the time, of her death, I should have made an effort to obtain a *post-mortem* examination; but, not being in constant attendance upon her, I did not hear of it till some days after it had happened.

It will have been seen, that all the foregoing cases occurred under my own observation; that of the uncombined cases in which the uterus appeared otherwise healthy; two were remarkable for more than one polypus having been removed at different times from the same patient; two for the occasional recession or retraction of the tumour completely within the uterine cavity, after its entire protrusion into the vagina; and one for such a degree of irregularity and softness, through ulceration at the lower portion, as to give the impression at first of its being a malignant fungus.

In two the tumours were so large, that they remained in the vagina after having been separated by the ligature, and after the canulæ had come away. One of these was removed the same day by a hook; the other could not be extracted by any instrument, lay within the vagina a week without producing much distress, and passed spontaneously after that time. In all these cases except one, where the tumour was twisted off by a pair of slender forceps, the ligature was used; the knife not having been had recourse to at all. In all, the bleeding ceased, or was most materially abated, on the strangulation of the polypus, and in none did the tightening of the ligature give any pain. In all, the tumour parted by sloughing; and in most it was greatly shrivelled before it came away. In one instance it swelled much, and, from being flabby, became very tense soon after it was tied. Many of the patients were brought almost to death's door by the loss of blood, and two were so greatly depressed, that I had a very faint hope of their revival.

Five cases were complicated with pregnancy. Four, at least, were combined with other tumours existing in the same uterus, and one with carcinoma. Fifteen occurred in women who had borne one or more children; five in married women who were barren; and three in virgins.

The deaths of five of these patients may be attributed to the tumour; one where the disease seemed to be uncombined polypus, from her imprudently having used an astringent injection on the day it came away, to stay leucorrhœa; one where the stem of the tumour was calcareous, and where a large mass, that had been imbedded in the substance of the uterus, was drawn away, leaving a cavity that did not fill up and heal; one where pregnancy co-existed; and two where the tumour was a fibrous tubercle deeply imbedded in the uterine walls, and protruding inwardly. Death took place in one of these during the continuance of the sloughing process. In the other, five successive tumours appeared in the vagina during a period of eight years, and she died eventually from hæmorrhage. The patients with carcinoma also died eventually; another in eighteen months from an accidental affection of the brain; and another in three years from diseased liver. This cannot be taken, however, as a fair average of the deaths that have occurred in my practice; for I have detailed every case that I have seen where a fatal termination ensued, except one of fibrous tumour projecting internally, of which I have not the notes; whilst I have not thought it necessary to give the history of many cases of the ordinary kind of polypus that have done well, because of their similarity, and the tediousness that would necessarily attend their recital.

7, Portman-square.

THE LONDON
PRACTICE OF MEDICINE AND SURGERY.

ABSCESS OF THE LIVER.

UNIVERSITY COLLEGE HOSPITAL.

Abscess of Liver,—Rupture into Pericardium ..... Mr. Erichsen.
Hydatid Abscess of Liver ..... Dr. Parkes.

ST. BARTHOLOMEW'S HOSPITAL.

Hydatid Cysts in Liver .....

ST. THOMAS'S HOSPITAL

Abscess of Liver.—Rupture into Abdomen..... Dr. Leeson.
Abscess in Liver.—Rupture into the Lung ..... Dr. Bennett.

The correct diagnosis of diseases of the liver may, by general consent, be ranked among the most difficult of the problems which are offered to the physician for his solution. Nor is this much to be wondered at, when it is remembered that, 1st, the physiology of the viscus is but little understood; 2ndly, that its secretion cannot be collected for examination; 3rdly, that most of the physical methods of investigation, adopted with such advantage in the case of the thoracic organs, are inapplicable to it,—it cannot be auscultated. However uninviting, on these accounts, the subject may appear to be, it has, notwithstanding, claimed, during late years, the attention of some minds of the highest order; and, looking back on several very important modern discoveries respecting it, we incline to hope cheerfully for its future prospects.

Anxious to contribute our little quota, we purpose this week to lay before our readers a few particulars respecting some cases of chronic hepatic abscess which have lately come under our observation. Among the circumstances commonly given as exciting causes of this affection, are blows on the part, exposure to great heat, phlebitis, the presence of entozoa, and dysenteric ulcerations of the intestines. Of these the last-mentioned has, of late years, been had in much regard, on account of the arguments brought forward by Dr. Budd in proof of its frequent occurrence, and in explanation of the means by which its influence is exerted. Dr. Budd believes that the absorption either of pus or of fetid secretion from the diseased intestinal surface, effects a contamination of the portal blood, which, being carried through the liver, there acts as an irritant, producing inflammation and suppuration. Other observers are, however, still inclined to doubt whether the two affections stand to each other in any regular relation of cause and effect. About the fact of their frequent co-existence there is no dispute, but, in many instances, the hepatic symptoms appear to have preceded the intestinal ones. Of the five cases which we shall have to allude to, respecting the cause of two no tangible explanation could be afforded, and, in a third, there was only the questionable one of long-continued vesical irritation. It was certain that no dysentery had occurred in the two former, and in the third it was very improbable. In the remaining two cases the disease depended on the presence of hydatids.

The symptoms by which chronic suppurative hepatitis is marked are usually not in any way pathognomonic of that affection, but are

such as are common to most diseases of the liver:—Pain or sense of weight in the region of the liver, a dry cough, occasional nausea, irregular state of the bowels, pain in the right shoulder, great depression of spirits, various dyspeptic symptoms, and sometimes jaundice, rank amongst the most important; and it will be seen that none of these mark the existence of abscess with any conclusiveness. Occasionally, however, the occurrence of fixed local pain and tenderness, of rigors, jaundice, and rapid loss of health, renders the diagnosis much more easy. In a large majority of cases, however, the existence of an abscess is only suspected when it has attained a size sufficient to be detected by manual examination, as a soft tumefaction, obscurely fluctuating, and occasioning an increased extent of dulness on percussion. The direction in which abscesses of the liver may point are very various, and to specify the organs, cavities, etc., which their rupture may involve, would simply be to enumerate all the parts in anatomical relation with that viscus. Our cases present us with two instances of rupture into the peritoneal sac, two into the external surface, one into the lung, and one into the pericardium. Of these, rupture into the lung is certainly the most desirable, and it is, according to recorded observations, one of the most frequent. Very often the same abscess gives way in more than one direction at the same time, or at different periods. Of this, our cases afford us two examples.

For the whole of the particulars of the first on the series, we are indebted to the notes taken by Mr. Gamgee, one of the house-surgeons of University College Hospital, by whom the *post-mortem* examination was performed. It is a case of unusual interest, affording as it does an illustration of two distinct lesions, each of them of very rare occurrence.

UNIVERSITY COLLEGE HOSPITAL.

ENCYSTED VESICAL CALCULUS. — ABSCESS OF THE LIVER.—RUPTURE INTO THE PERICARDIUM.—DEATH.—AUTOPSY.

[Under the care of Mr. ERICHSEN.]

John Wilson, aged 48, a pensioned life guardsman, became a patient of this hospital for the first time in November, 1849, when he was admitted under the care of Mr. Arnott, suffering from symptoms of stone in the bladder. Since that time he had been under the treatment of Mr. Erichsen repeatedly, and, from the peculiarity of the disease, much interest had been excited in the minds of all who knew its history. Although, from the continued recurrence of severe vesical irritation and other symptoms, little or no doubt could be entertained as to the existence of a stone, yet neither Mr. Arnott nor Mr. Erichsen had ever been able, on sounding, to detect it with sufficient clearness to make an operation justifiable. He had been sounded a vast number of times, and with the greatest care; but, notwithstanding that a distinct tumour could be detected on the right side of the base of the bladder, as well by means of the sound as by passing the finger into the rectum, yet the instrument failed for the most part to elicit from it the peculiar chink produced by striking a stone. On several occasions, however, this sound was obtained with tolerable clearness, twice by Mr. Arnott, and twice, within a few months of the patient's death, by Mr. Erichsen. Soon after one of the former, Mr. Arnott had him taken into the operating theatre, with the intention of performing lithotomy; hut, when on the table, no stone could be found, and it was accordingly thought best not to proceed to the operation. The symptoms of chronic cystitis, for aggravations of which he was on each occasion induced to apply, were usually much relieved by confinement in the recumbent posture, and the adoption of the ordinary measures. He yet, however, never regained a sufficient degree of comfort to allow of his undertaking any employment, and it was evident at each succeeding admission that his general health was declining. Being disheartened by his protracted and severe sufferings, he had of late become very desirous that an operation should be attempted, and frequently importuned Mr. Erichsen to perform it. As, however, the result of his examinations continued to be of the unsatisfactory nature above alluded to, and as Mr. Erichsen had diagnosed the stone to be encysted, and the aperture of the cyst small, he never deemed himself warranted in undertaking what it seemed certain would terminate in disappointment to himself and the patient.

The date of his last admission was October, 1852, when he applied on account of his old train of symptoms. He appeared to be much out of heath, was pale and emaciated, and had the aspect of a person suffering from severe organic disease. The bladder having been again examined with the same success as before, Mr. Erichsen prescribed his remedies with the view to the correction of the condition of the urine, which was alkaline, and loaded with phosphates and mucus. After he had been in the hospital for a short time, indications of the existence of pleurisy on the left side came on, for which it became necessary to employ counter-irritants, etc. About a month after this a fluctuating tumour, the size of a fist, made its appearance over the lower border of the walls of the left chest. This having much increased in size, and evidently containing fluid, Mr. Erichsen punctured it about three weeks after its first appearance, and evacuated nearly half a pint of very fetid brownish pus. In spite of the free use of stimulants he continued to decline in strength, and died on the fourth day after the puncture, Dec. 6, 1852. It had been ascertained, by inquiry a little before death, that he had some months ago been attended at his own home on account of a slight attack of jaundice. Great interest was felt in the *post-mortem* examination, both respecting the original affection of the bladder, and regarding the abscess which had been the immediate cause of death, and which appeared to be quite distinct from the former disease. The following are its results:—The left pleura contained nearly seven pints of slightly turbid serum; and the lung, although crepitant in some parts, was much collapsed. In attempting to remove it, a small opening was made into the pericardium, when a quantity of thin pus escaped. This was found, on further laying open that sac, to proceed from a small fistulous opening through the diaphragm, which was round, and about capable of admitting a goose-quill. The pericardium contained altogether about sixteen ounces of pus. The whole surface of the heart was rough, with deposits of lymph, which over the right ventricle occurred as small bead-like nodules, and over the left side had an arrangement in ridges. Its interior was healthy, and its muscular structure was of a light pink colour.

On opening the abdomen, it was found that the puncture which had been made during life entered a large abscess in the extreme end of the left lobe of the liver, the cavity of which also communicated by means of the before-mentioned fistulous passage through the diaphragm with the pericardial sac. This part of the liver was much enlarged, and adhered all round to the ribs and neighbouring viscera. The cavity of the abscess was lined with flocculent lymph, and was of a size capable of containing a fœtal head. On the right lobe of the liver were several irregularities, due to depressions of its substance, and apparently the result of lymph deposited on its surface at some former time.

The spleen and kidneys were healthy.

The bladder was removed unopened for careful dissection. On its surface, a little above the entrance of the right ureter, was a tumour the size of a pullet's egg, which projected directly outwards, pushing upwards the ureter, which took its course in a groove on its surface. The coats of the tumour were composed of the outer layers of the bladder, the tissues of which were three times as thick in this part as they were elsewhere. The tumour when cut into was found to contain two whitish and slightly rough calculi, which were just visible on looking into the bladder through an opening into the cyst about the size of a pea, and situate an inch above the level of the ureter. The bladder itself was somewhat contracted, and the prostate small and healthy.

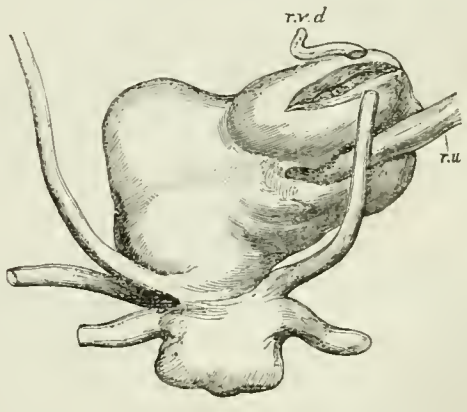


Fig. I. The bladder and its appendages seen from behind. In the protuberance to the right, the groove for the passage of the right ureter (*r u*) is seen. An incision has been made into the walls of the cyst, which shows their great thickness. By this incision the right vas deferens (*r v d*) is divided.

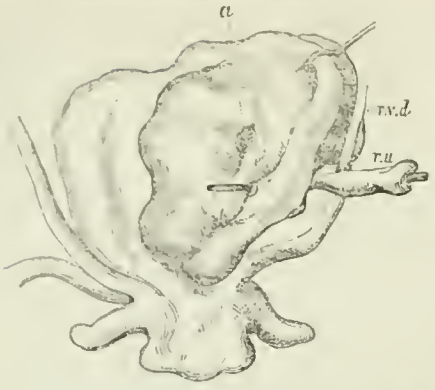


Fig. II. A portion of the bladder having been reflected, its interior is exposed, and the (*a*) aperture of communication with the cyst is seen, and through it a prominent portion of the calculus.

This case is very interesting in a diagnostic point of view, and shows the importance of not performing the operation of lithotomy unless the stone is known to be loose in the bladder. As Mr. Erichsen could rarely succeed in striking the calculus with the sound, and when he did, could only feel a very small surface. never being able to get the instrument round or underneath it; as it was invariably encountered in exactly the same position, and as there was at no time retention of urine or hæmaturia, Mr. Erichsen came to the conclusion that the calculus was encysted, that the aperture of the cyst was small, and that the tumour which could be felt by the sound projecting into the bladder was the calculus covered by the coats of that organ. Under these circumstances, looking upon the extraction of the stone as impracticable, (as after death it was shown to have been,) he very properly refused to operate.

It is somewhat remarkable that the stone, although so completely encysted, had occasioned its possessor very great inconvenience; so much so, that latterly being unable to walk with any degree of comfort, he had been compelled to observe the recumbent posture almost exclusively. Symptoms of vesical irritation, so common in cases in which the calculus is free are usually attributed to its rolling about in the bladder during the movements of the patient, which in the case before us it is plain could not have been the cause. When we remember the size and weight, however, of the encysted mass, it is not very difficult to conceive that it might have produced great uneasiness during exercise, by dragging upon neighbouring parts or falling against the tunics of the bladder.

As an example of hepatic abscess, terminating fatally in an extremely rare manner, this case possesses unusual interest. Another instance in which an abscess of the liver broke into the pericardium, is recorded by Dr. Graves in his lectures on clinical medicine. In it, as in the present one, rupture took place in several directions, three distinct openings having formed in the stomach and one into the pericardium. Another case of similar mode of termination is mentioned by Dr. Smith an American physician. In each, as might have been expected, a very acute pericarditis resulted, and death took place within a few days of the supposed date of the rupture.

We may suggest as possible, regarding the cause of the hepatitis, that from the communications between the vesical plexus and the inferior mesenteric vein, the portal blood might have become contaminated with noxious materials absorbed from the cyst in the bladder. On this supposition its explanation would be similar to that proposed by Dr. Budd in cases in which abscess of the liver follows dysentery.

HYDATID ABSCESS OF THE LIVER.

[Under the care of Dr. PARKES.]

Whilst treating of hepatic abscesses, we are anxious not to omit the mention of an occasional cause of their presence,—we allude to the presence of hydatid cysts. A most interesting example of this form is now under the care of Dr. Parkes; but, as its ultimate result is as yet very uncertain, we shall not do more than very briefly state its chief features, hoping at some future time to present our readers with the full details. The patient is a young woman who has suffered from symptoms of disorder of the liver for more than a year. About two months ago a large tumour, which Dr. Parkes had diagnosed as depending on the presence of hydatids, suddenly diminished, having apparently burst into the peritoneal cavity. A sharp attack of peritonitis followed, but from this she rallied, and three weeks ago the tumour presented externally and was opened. In the pus which was removed were found, on microscopic examination, numerous ecchinoecoci, as well as great numbers of their detached hooklets. For a few days after the puncture she was extremely ill, but has now recovered from the state of depression then existing, and appears to be doing well. Dr. Parkes, however, apprehends the presence of another cyst, and it is impossible to foresee what the termination may be.

ST. BARTHOLOMEW'S HOSPITAL.

HYDATID CYSTS IN THE LIVER, AND ALSO IN THE TISSUE OF VARIOUS MUSCLES.

In the dissecting-room at St. Bartholomew's Hospital, a month ago, there were found two distinct hydatid cysts in the liver of a woman, aged probably 35, who had died of phthisis. The larger one was situate in the right lobe, and was capable of containing an orange; its shape was irregular. The smaller one was the size of a large egg, and seated in the left lobe. Both had almost cartilaginous walls, and contained a clear fluid, in which floated a large number of the little bags or true cysts of the animal. These latter varied in size from a pea to a large chestnut, and had within them numerous echinoecoci. It is worthy of remark, that in the muscles of the extremities were found several very minute hydatid bags. A perfect specimen of the echinocoecus, removed from the gastrocnemius, was kindly shown to us by Mr. Wood, the resident medical officer of the hospital. The woman had not been a patient in the institution, and consequently no history of her ailments was obtained. The case scarcely comes in the category of abscesses of the liver, since the cysts did not contain pus. It illustrates the antecedent stage of that affection, however, much too well to be here omitted. Had the body not been subjected to dissection, it is probable that the presence of the animals in the muscles would not have been discovered. Their detection under such circumstances is suggestive of the possibility that their existence may not unfrequently be overlooked in less careful examinations. Mr. Wood informs us that, on a previous occasion, he has met with hydatids in more than one organ of the same patient, viz., in the lungs and liver.

ST. THOMAS'S HOSPITAL.

ABSCESS IN THE LIVER.—RUPTURE INTO THE PERITONEAL SAC.—DEATH.—AUTOPSY.

[Under the care of Dr. LEESON.]

William Skinner, aged 29, was admitted October 21st, on account of complaints of which he gave the following history:—Five months ago he had begun to be affected with a dull aching pain in the epigastric and right hypochondriac regions, as also between the shoulder-blades, the pain alternately affecting one and the other part, and never both at the same time. He had also much flatulence, and a troublesome dry cough. For these symptoms he had consulted several surgeons, and, receiving no benefit, became an out-patient at this hospital, under Dr. Peacock's care, when he regained his health sufficiently to allow of his returning to work. The benefit, however, was not permanent, and in a short time his ailments had returned, and he was gradually declining in flesh and strength, when suddenly a more acute train of symptoms showed themselves. While sitting at home one afternoon, about five weeks ago, he was seized by a pain in the abdomen, of such extreme severity, that it obliged him to lay down on the floor, with his knees drawn up, and back bent. He was in this state carried to bed, and continued for several days to suffer extremely from pain, attended by general pyrexia. He did not, however, consult any medical man, and after a little time these symptoms spontaneously subsided. (We shall have to show, in the future history of the case, that in all probability this illness was acute peritonitis, caused by the rupture of an abscess). He stated that he was a native of Devonshire, and had lived there most of his life, following the trade of a painter; that three years ago he had come up to London, and for some time had been out of work, and, in consequence, had undertaken, a short time before his illness commenced, some much more laborious duties as a carpenter. He had always lived soberly, and while in the country had never suffered from ill health; had never been abroad, or been affected with ague or dysentery.

He was sallow, of an anxious countenance, and, although not much emaciated, had a very cachectic appearance; his manners were sulky and taciturn, and he seemed much depressed in spirits; tongue pale and flabby; pulse 110, small and compressible; urine scanty and highly coloured. On examining the abdomen a bulging

was noticed in the right hypochondriac space, over which percussion elicited a dull sound; no fluctuation could be detected; the breathing was hurried, and chiefly thoracic, but on auscultating the lungs no diseased sounds were detected; he had no cough, and he could lie without pain in any position; in the right hypochondrium was a dull uneasy sensation, which pressure did not increase.

Diæta lactis. ℞ Mist. potassii iodidi ʒi. ter die.

October 28.—Until yesterday he seemed to be making some improvement, when a diarrhœa came on, attended with pain and griping.

℞ Hydr. cum cret. gr. iij o. n.

31st.—The diarrhœa has subsided, and he seems more comfortable in every respect; sleeps well; pulse 100, and fuller than it was.

November 8.— Slight improvement up to to-day, when he appears weaker. A small abscess has formed just below the umbilicus, and, bursting, has discharged a moderate quantity of thin pus. Catapl. lini.

℞ Quin. disulph. gr. ij.; sp. æth. nit. ʒi.; mist. camph. ʒi.; ter die.

14th.—The abscess discharges profusely, and around its borders there is considerable tenderness. The patient suffers from rigors each evening, and copious night perspirations after them. Much nausea, but no diarrhœa.

As the medicine makes him sick, it is substituted by quin. disulph. gr. ii., acidi sulph. dil. mx. ex aquâ.

18th.—Continues in much the same state; can keep down his food and medicine.

21st.—There is to-day a decided change for the worse; the amount of discharge is increased. He is very sick, and cannot retain his food; countenance anxious; pulse 150, very feeble.

25th.—Has frequent vomiting and severe diarrhœa, and is getting much weaker. He lies in a half comatose state, and there is great difficulty in inducing him to take anything. Tongue dry and brown; lips covered with sordes; respirations 40 per minute; and pulse scarcely perceptible. The abscess discharges very profusely, and its secretion has a fetid and cadaverous odour.

From the date of this note, in spite of the liberal employment of stimulants and astringents, he continued to sink very gradually, and died on the 30th.

At the *post-mortem* examination, all the viscera of the thorax were found in a healthy condition.

On opening the abdomen, the external fistula was found to communicate with a cavity containing a large quantity of thin yellowish pus. This cavity was formed in the upper half of the peritoneal sac, and was circumscribed by the adhesions which the surrounding viscera had formed one to another. These adhesions separated from it a second cavity which existed on its right, and contained a large quantity of brownish green, stinking pus, which had somewhat of a fæcal odour. This smaller cavity was bounded above by the under surface of the right lobe of the liver, near the free edge of which was an ulcerated opening communicating with an abscess in its structure, of which we shall speak directly. Between the small intestines, which lay chiefly to the left side, there existed numerous bands of adhesion, which contained a clear yellow serum in their interstices. In several places, however, between these and the abdominal parietes, were small abscesses containing a thick, creamy pus, separated by adhesions from the surrounding parts. The cœcum had become united laterally to the walls of the abdomen, and the accumulation of pus around it had partially destroyed its muscular tissue, and had, in more than one place, found its way by ulceration into the interior of the gut. This process of ulceration into the intestinal walls had taken place in several parts of the colon also; the small intestines were mostly healthy; the large ones contained a little fæcal matter, but were distended mainly with pus. The liver was large, pale, and normally firm; the upper surface of its right lobe was united to the diaphragm by firm adhesions, excepting a small portion adjoining to its anterior free edge. On the under surface of this lobe, very near the free edge, was an irregular, ulcerated opening, about a square inch in area, and communicating with an abscess; this abscess was irregular in shape, filled with pus, and altogether somewhat larger than a hen's egg; its parietes were formed by a soft opaque substance, in which were few traces of the original lobules.

The common internal and external iliac veins on the left side were filled by an adherent, partially decolorised coagulum, which had softened internally. The vena azygos, for about three inches of its extent, was in a similar condition. The left leg was not œdematous, and had not been so at any part of the illness.

We are obliged to Mr. Clapton, the clinical clerk of the case, for the above particulars. After a careful consideration of them, we are unable to assign any satisfactory cause for the occurrence of the abscess. With regard to those usually mentioned as such, the most searching inquiries were instituted without result. The external opening was, of course, in connexion with a collection of matter in the peritoneal sac, and not with the original abscess. In his taciturn, melancholic manner, and depressed condition of mind, the patient afforded a good illustration of that state of disturbance of the nervous centres, the frequency of which, in connexion with hepatic disorder, has been matter of observation ever since the time of Hippocrates.

ABSCESS IN THE LIVER.—EVACUATION THROUGH THE LUNG.—RECOVERY.

[Under the care of Dr. BENNETT.]

Samuel Forster, aged 42, a tailor, was admitted into Jacob's Ward on February 3, 1852. He was a delicate-looking man, of sallow and icteroid complexion. He stated that his habits were temperate, and that he had always enjoyed good health until four years ago, when he suffered from an attack of jaundice, for which he was three weeks under treatment in this hospital, and was discharged cured. From that time until the commencement of the present illness he had, with the exception of bilious attacks, not suffered any material loss of health. Three weeks ago he was seized with great depression of spirits, nausea, and a dull, aching pain in the right side. His bowels having been costive for some time, he attributed his symptoms to that cause, and procured a mercurial pill and black draught, by means of which he was much purged, and to a considerable extent relieved. The aching pain in the side, however, still continued, and at the expiration of four days his skin had assumed a deep yellow colour. Soon after this the pain became more acute, rigors occurred, and the nausea was attended with some vomiting. During the next fortnight he was under the care of the parish surgeon, his fæces were noticed to be very light-coloured, and the pain continued so severe that he could not lie on the right side or back. As regards his former history, it appeared he had never been out of England, and it was not known that he had ever suffered from any form of dysentery, ague, or piles.

On admission his face and trunk still exhibited the yellow tint of jaundice, though, according to his own account, to a much less degree than it had formerly done. He was in a low, nervous condition, and complained much of pain in the right hypochondrium, which was very tender to the touch. He was much troubled with cough, and expectorated profusely a purulent fluid, which had, he stated at the time of its first appearance two days ago, been of a much darker, brownish-red colour, and attended by much dyspnœa and pain in the side. The sputa possessed a bitter and most nauseous taste, and frequently made him feel sick. The jolting of the cab in which he had been brought to the hospital had much increased the amount of expectoration and the difficulty in breathing. His tongue was moist, but furred; urine copious, high-coloured; bowels open, and fæces of tolerably healthy colour. Pulse rapid, weak, and compressible. No enlargement of the liver could be detected, though there was some general tumefaction of the hypochondrium. On auscultating the chest, the only morbid sign discovered was the somewhat harsh and bronchial character of the respiration in the lower part of the right lung with some mucous rhonchi towards the root of the lung. From the previous history of the case, coupled with the existing phenomena, Dr. Bennett was induced at once to pronounce a decided opinion, that hepatic abscess had existed and was discharging through the bronchial tubes. He was ordered five grains of blue pill and rhubarb at bedtime and a saline aperient draught in the morning.

Feb. 4.—Has passed a bad night; bowels freely purged; evacuations natural; during the last twenty-four hours about twelve ounces of yellowish pus, mixed with frothy mucus, have been expectorated.

℞ Pil. alterat. gr. v., o. n. Mist. rhei alkalin., ʒj.; quin. disulph. gr. ij.; bis die sumend. Lot. acid. nitro-muriat. n. et. m. lat. dext. applic.

6th.—In much the same condition as before. The cough and necessity for expectorating keep him awake most of the night. Ordered in addition wine ʒiij. daily.

9th.—He can now lie on either side without inconvenience, and has slept fairly. The expectoration is much diminished in quantity, and more tenacious; cough relieved; tongue clean and moist

Rep. mist. et. lot. Omitte pil.

11th.—His expectoration, which yesterday only amounted to two ounces and a half, is to-day more abundant; it has, however, less of a bilious and more of a bronchitic character. He complains now of pain over the left clavicle, extending up the side of the neck, which prevented him from sleeping last night, and is much increased by coughing. The part referred to, as also the infra-clavicular region, is much swollen, puffy, and tender, but not red. On listening over

the left apex, mucous crepitation may be heard both before and behind. A linseed-meal poultice is to be applied to the painful part. Pt. med.

14th.—Much improvement in general health, and the sputa, which are now reduced to half an ounce in twenty-four hours, contain no pus. Neither cough nor pain at present exists; pulse full and soft, 72 per minute; aspect pale, but free from the jaundiced tinge which it at first had; appetite good. By means of the poultices the pain about the left clavicle was soon relieved; the tumefaction, however, remained for several days, but is now subsiding.

℞ Pil. quin. co. gr. v. ter die.

March 2.—He now appears to have quite regained his health, and no indications of disease can be detected, except that the breathing in the infra-scapular region of right lung is somewhat harsh and bronchial.

He is discharged.

In commenting on the above case, Dr. Bennett observed that it presented many points of great interest. Viewed simply as a case of hepatitis, terminating in abscess, it was deserving of special attention, for such cases are of comparatively rare occurrence in this country, except when witnessed in persons who have resided in tropical countries, and suffered from the effects of tropical climates. As an instance of hepatic abscess, terminating favourably by discharge through the lung, it was still more rare and interesting. But it might be asked, was this really the nature of the case? was the diagnosis which had been given correct? To this Dr. Bennett replied, that there were but two other cases with which it could be confounded, and these were empyema, opening through the lung, and pneumonia, passing into the suppurative stage. With respect to the first there could be no hesitation or difficulty in deciding; there was an entire absence of any of the ordinary signs of pleuritic effusion. As to the second supposition, more might be urged in its support. It might be said that the case was one of deep-seated and limited pneumonia, with the not unfrequent complication of hepatic disturbance. Now, though it was only in its latter stages that the case had fallen under observation, and though the early history was but imperfectly detailed, all that was known was in favour of the supposition, that originally it was a case of hepatitis. The former history of the man was in favour of this supposition. He had previously had hepatitis and jaundice. All the early symptoms described by the patient himself were those of hepatic diaease; dull aching pain of side, depression of spirits, nausea, vomiting, confined bowels, and jaundice. To these symptoms succeeded more severe pain of side, and then rigors, followed by cough and expectoration, profuse in quantity, and of a character that justified the suspicion, at least, that it proceeded from the liver. The symptoms on his admission showed that the liver had been, and still was, seriously involved in the disease, whatever might have been its original nature. Finally, the physical examination of the chest failed to detect those signs which could scarcely have been absent had there been such an amount of pneumonia as had led to breaking down of the lung to such an extent as to account for the sudden discharge of so large a quantity of purulent matter. Respiration was audible throughout the lung, there was scarcely any appreciable difference on the percussion of the two sides, nor any bronchophony. On the other hand, the somewhat harsh and bronchial character of the respiration in the infra-scapular region and the mucous rhonchi here and towards the base of the lung were what might be expected on the supposition that an extra thoracic purulent accumulation had made its way through the lung. Again, the subsidence of pain of the side and decline of the jaundice were coincident with the occurrence of purulent discharge from the lung. The appearance and strong bitter taste of the expectoration were also confirmatory of the expressed opinion as to its origin. The character of the swelling which subsequently occurred in the region of the clavicle on the left side, Dr. Bennett admitted, was somewhat obscure. It was not simple inflammation of the integuments, nor had it the decisive characteristics of either œdema or emphysema. There were, however, an indistinct crackling and sense of crepitation conveyed to the touch, which were very like emphysema. That it was in some way connected with the lung appeared pretty evident by the simultaneous occurrence of submucous rhonchi in the corresponding apex of the lung. The absence of more severe symptoms, and the speedy subsidence both of the external swelling and of the signs of irritation in the lung, militated against the supposition that there was any communication with the fistulous opening into the lung and the cellular tissue of the mediastinum. But, after all, this appeared to be the most probable explanation of the phenomena.

We have to thank Mr. Blackett, one of Dr. Bennett's clinical clerks, for the notes of this very instructive case.

GUY'S HOSPITAL.

MR. COOPER'S CASE OF OBTURATOR HERNIA.

We are glad to be able to state that Mr. Cooper's patient is progressing favourahly. The bowels, which at the date of our last report had not been relieved, acted freely on the ninth day after the operation, and have done so repeatedly since. The wound looks remarkably well, and is rapidly closing. During the last day or two she has suffered from symptoms of bronchitis, attended with some feverishness; but they are apparently merely an aggravation of her old-standing asthmatic complaint, and have nothing to do with the abdominal lesion.

LIST OF SCIENTIFIC MEETINGS.

This Evening, Feb. 5.—Royal Institution.—*Subject:*—"On the Philosophy of Chemistry." By Professor A. Williamson. Three o'Clock.

——— ——— Medical Society of London.—*Subject:*—"On the Fibrinous Element of the Blood in relation to Disease." By Mr. Richardson. Eight o'Clock.

Monday, February 7.—Royal Institution.—*Subject:*—"On Organic Chemistry." By Dr. A. W. Hofmann. Four o'Clock.

——— ——— Epidemiological Society.—*Subject:*—"On the Influence of Noxious Effluvia on the Origin and Propagation of Epidemic Diseases." By Mr. R. D. Grainger. Half-past Eight o'Clock.

Tuesday, February 8.—Royal Institution.—*Subject:*—"On Animal Physiology." By T. Wharton Jones, Esq., F.R.S. Three o'Clock.

Wednesday, February 9.—Royal Institution.—*Subject:*—"On Organic Chemistry." By Dr. A. W. Hofmann. Four o'Clock.

Thursday, February 10.—Royal Institution.—*Subject:*—"On the General Principles of Geology." By J. Phillips, Esq. Three o'Clock.

Friday, February 11.—Royal Institution.—*Subject:*—"On the Influence of Material Aggregation upon the Manifestations of Force." By J. Tyndall, Esq. Half-past Eight o'Clock.

Saturday, February 12.—Royal Institution.—*Subject:*—"On the Philosophy of Chemistry." By Alexander W. Williamson, Ph. D. Three o'Clock.

——— ——— Medical Society of London. Eight o'Clock

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Medical Times & Gazette.

SATURDAY, FEBRUARY 5.

THE VACANT EXAMINERSHIP AT THE UNIVERSITY OF LONDON.

We alluded last week to the death of Dr. Pereira, and in our next Number we intend to present to our readers a memoir of that distinguished physician. Without possessing what may be called genius, and without any *prestige* from birth or connexions, he nevertheless made his way to the top of the Profession by the mere exertion of untiring energy and perseverance; and his great work on Materia Medica and Therapeutics is no doubt the most elaborate and learned production which has ever appeared upon that subject. Such a man was peculiarly well qualified for the post of Examiner in his favourite science at the newly-established University of this Metropolis; and his well-earned reputation contri-

buted in no small degree to uphold the dignity of the Faculty of Medicine at that seat of learning. The loss will be supplied with great difficulty, and we are writing nothing but justice when we state that the late Dr. Pereira stood alone as a writer, a teacher, and an examiner in Materia Medica.

The vacancy thus caused in the Examining Board of the University may appropriately form the subject of a few remarks upon the constitution of that learned body, and upon the practice which has hitherto been followed in the appointment of the Examiners.

At its establishment by Royal Charter, the University of London was constituted of thirty-six Fellows, whose duty was to consist in examining for degrees, and in certifying to the attainments of the candidates. The Fellows, forming collectively the Senate, then appointed from among themselves gentlemen whom they considered competent to examine candidates for degrees, and associated with them others, not members of their own body, who were eminent in literature and science. The plan was well devised and equally well executed ; the system has worked successfully, and the result has been that the degrees of this University are held in well-merited estimation. Their possessors, scattered over this country or migrating to our distant colonies, are reflecting upon their Alma Mater the lustre which they originally borrowed from her, and the ancient Universities, stimulated by the example of their younger sister, are introducing such reforms in their curricula and in their examinations as are suitable to the requirements of the enlightened age in which we live.

Confining our attention to the Medical Graduates of this University, we find them already occupying posts of honour and responsibility in many, if not in most of our educational establishments, and in our hospitals and dispensaries ; and the rigid requirements of the Examining Board, the extent of the curriculum, and the stringency of the examination itself, have undoubtedly tended to produce that amount of close reasoning, of extensive study, and of practical knowledge, which is eminently serviceable to those who embrace the profession of medicine, either for the purpose of healing disease or of instructing youth. We do not urge it as a reproach against the Senate of the University, that they have up to the present time appointed none of their own graduates to the offices of dignity which are placed at their disposal, because, as the University itself is of modern origin, its alumni must for the most part be young men, who, however great may be their scholastic attainments, have hardly sufficient standing to lend weight to a great national institution. Sufficient time, however, has now elapsed to enable those who were the learners, to become the examiners; and we cannot but think that some one might be found among the Graduates of the University of London to fill the honourable post which has been left at the disposal of the Senate by the death of the gentleman whose loss we deplore, in common with the whole body of the Profession.

DR. MARSHALL HALL AND HIS CIRCULAR.

For some time past there have been numerous rumours in circulation amongst the members of our Profession as to the retirement of Dr. Marshall Hall from practice. To these reports, as to others affecting the same gentleman, we have at all times turned a deaf ear, partly because many of them appeared to be founded solely on erroneous conjectures, while the others alone concerned the eminent physician to whom they referred. Dr. Marshall Hall, however, having now taken a public step, which, in our estimation, is deeply to be deplored, we feel that we should be shrinking from our duty if we failed to make known to our readers the facts of the case. These will probably be best understood by the following copy of a circular which has been printed and distributed amongst the Doctor's patients. It is taken *verbatim et literatim*, and runs thus :—

EXTRACT FROM A LETTER BY DR. MARSHALL HALL.

"My dear Sir,— * * * * * * * *

"I now leave you in the care of Dr. Reynolds, in whom you may, as I do, place an unbounded confidence.

"Dr. Reynolds has gone through all my experiments with me, and has been constantly present lately at all my consultations, and knows my views perfectly.

"Dr. Reynolds' grandfather was physician to George the Third. What is more to the purpose, Dr. Reynolds distinguished himself both at University College and the University of London, taking five Gold Medals and two Scholarships, and early took a special interest in the nervous system and its diseases. I published an Observation of his so long ago as 1848.

"My intention for the present is to travel. I shall probably return to London yearly, during the months of May, June, and July, joining my friend Dr. Reynolds during those periods.

"During my absence, Dr. Reynolds will correspond with me relative to my patients.

"I fully expect that Dr. Reynolds will pursue with energy, and with advantage to the public, the career of investigation of the diseases of the nervous system which I have begun.

"I am, my dear Sir,
"Yours very truly,
"Marshall Hall.

"38, Grosvenor-street, January 1853."

Now, without discussing, on the present occasion, the propriety of a consulting physician thus attempting to transfer his practice into the hands of another—into the hands of a gentleman, one of whose qualifications is said to be that his "grandfather was physician to George the Third," we think it must at least be clear, that it is contrary to all sound principle and rule for members of a learned profession thus to advertise themselves. That the Circular is an advertisement, both of Dr. Hall and Dr. Reynolds, cannot be denied, let it be taken how it may; especially inasmuch as it is designed to show, that, notwithstanding the "unbounded confidence" which may be placed in the latter, the former may still be consulted by letter, or personally during three months in each year. We will not say that such a mode of advertising is unfair, because it is simply so much worse than unfair that we should be sorry to characterise it as it appears to deserve. It certainly does not assert in so many words, that Dr. Reynolds is superior to all the physicians of the day, and that Dr. Marshall Hall is superior to Dr. Reynolds, but the whole tone of the letter is very like it.

Again, there is another point of view from which this extraordinary proceeding must be regarded. The author of the Circular is a Fellow of the Royal College of Physicians, and as such has sworn to obey the laws by which this learned body is governed. How does it happen, then, that he can so thoroughly violate the rule which very properly forbids Fellows or Licentiates of the College consulting with physicians who do not belong to the Institution? Dr. Reynolds's qualification—the degree of Doctor of Medicine from the University of London—is most honourable; but it must be remembered, that it gives him no right to practise as a physician. He is, indeed, a surgeon, having obtained the diploma of the College of Surgeons in 1850. Now, we should be the last to insist too particularly upon class distinctions of this kind ; but we think we shall hardly be accused of doing so in the present instance, when we remember Dr. Hall's position in the Profession as a long-established consulting physician. However, this is a question

—in fact the whole matter forms a subject—for the consideration of the President and Court of the College of Physicians; and we willingly leave it in their hands, knowing that by so doing full justice will be meted to the Profession, and no less so to Dr. Marshall Hall.

THE "GRANT" TESTIMONIAL.

About two years since, a Committee was formed, embracing many of the most eminent Naturalists and Medical Professors, for the avowed purpose of adding to the scanty income of one of England's most successful investigators of an important but unremunerative branch of science; and, with the assistance of other eminent men, they have happily concluded their labours, by presenting to Professor Grant a good microscope and a deferred annuity of 50*l.* per annum. We have, during the same period, lent our assistance by giving publicity to the scheme in several leading articles, in which we urged all our readers who are zealous in the cause of science, and the prosperity of the labourers in the great field of natural history, to contribute to so desirable an object, and we have good reason to know that our efforts have not been unsuccessful. When we reflect that much of our physiology is based on comparative anatomy; that all our important physiological experiments are performed on the lower animals; that the progress of development and complexity of organization are traceable from the lower to the higher animals up to man; we cannot ignore the great importance of comparative anatomy to the knowledge and perfection of physiology and scientific medicine. Professor Grant, leaving the more lucrative path of medical practice, has devoted his entire mind, from his student life to the present time—a period of nearly half a century—to the cultivation and dissemination of comparative anatomy and zoology; has during that period made important discoveries in the structure of several tribes of animals; and, what is even of greater importance, has sent from his class-room many pupils who have assisted in diffusing a taste for natural history, and some who have ardently followed in his footsteps. We cannot refrain from noticing one of his trains of research—that on the structure of the sponges, which, however unimportant it may at first sight appear to human physiology, has led the way to the recognition of vibratile cilia in the higher orders of animals and in man himself. Dr. Grant was the first, we believe, to discover vibratile cilia, which he found on the gemmules of the sponges. They were subsequently noticed and described in the infusorial animalcules, then on the mucous membranes of the vertebrata, and the similar parts of man, in whose organs they perform important offices. Such was the accuracy with which Dr. Grant described the structure and development of the sponges, that little has been added on that subject by subsequent observers; but the consequences flowing from this apparently barren investigation have, like those of Oersted on electro-magnetism, proved of great practical value. It must be remembered, that all his numerous labours have been undertaken and carried out under the adverse circumstances of an extremely limited income—a sufficient discouragement to most minds, but insufficient to one possessing his great intellectual powers. We may truly say, that his has been emphatically the successful pursuit of knowledge under difficulties which would appal even earnest men.

The Committee, knowing fully the circumstances of the learned Professor; knowing, further, Dr. Grant's limited resources until the Council of University College must liberally added to his stipend a fixed sum of one hundred pounds per annum, set earnestly to work, and gradually collected, with little solicitation, a sum amounting to nearly four hundred pounds, which, with the full approval of Dr. Grant, they have, as we have already said, expended in purchasing for him an annuity and an excellent microscope. In the midst of their labours, the Swiney Professorship of Geology became vacant, by the resignation of Dr. Carpenter, when Dr. Grant was urged to become a candidate, and we know that several of the leading members of the Committee were untiring in their exertions for his success. Dr. Grant received the appointment, by which his income is considerably increased; but as he can hold this Professorship only five years, it was considered that the funds collected by the Committee would be best laid out in purchasing for him a deferred annuity, commencing at the termination of the Swiney Professorship. Such have been the proceedings of the Committee, which have terminated, as our report at another page will show, most successfully. Before, however, the Committee resigns its functions, an urgent memorial will be transmitted to the Government for some portion of the 1200*l.* annually given to eminent scientific discoverers and authors, and we hope with the success that has attended its earlier labours.

DR. HOFMANN'S LECTURES ON ORGANIC CHEMISTRY.

We have great pleasure in laying before our readers to-day the first of a series of Lectures on Organic Chemistry, now in course of delivery at the Royal Institution in Albemarle-street, by Dr. Hofmann, Professor at the Royal College of Chemistry. The Lectures will appear regularly until the completion of the course, and will be revised by the Professor himself.

It is unnecessary for us to expatiate upon the importance of the science of Organic Chemistry, especially in the present day, when the attention of the Profession and of the Public is powerfully drawn to the subject by its innumerable applications to medicine, as well as to the more ordinary arts of life.

From the very nature of Organic bodies, and the fluctuating and changeable character of their components, it necessarily results that new fields of investigation are perpetually presenting themselves to the chemical analyst, and new light is continually being thrown upon the relations existing between the human frame and the objects by which it is surrounded, and of which it is indeed built up. It is, therefore, the duty of a scientific medical periodical to present to its readers the successive improvements which have been effected in this important department of natural science; and we are extremely gratified at being enabled to enrich our pages with the valuable lectures of Dr. Hofmann, whose high reputation in Giessen, and afterwards in London, is a sufficient guarantee for their excellence.

The late Dr. Pereira.—Our memoir of this distinguished physician is in type, but, as the delay of a few days will enable us to obtain still more information than we at present possess, we have preferred postponing its publication until next week.

The Asylum for Idiots.—The spring election and annual meeting of this charity will be held at the London Tavern on the 28th of April, when 15 idiots will be elected for care and education out of 200 candidates. His Royal Highness Prince Albert will lay the first stone of the new building for the asylum early in the spring.

PRESENTATION OF A TESTIMONIAL TO PROFESSOR GRANT.

A meeting took place in the Museum of Materia Medica, University College, on Saturday last, for the purpose of presenting to Dr. Grant a microscope of the value of fifty guineas, accompanied by a deferred annuity of fifty pounds. Dr. Marshall Hall occupied the chair, and, in presenting the microscope, said: In the year 1812, just forty years ago this very year, I gave some lectures on diagnosis in Edinburgh, and you kindly and generously became my pupil. Two-fifths of a century have since passed away, and it is still reserved for me to be the giver and you the receiver of this splendid microscope, the offering of your warm and sincere friends and admirers, in testimony of your devoted, unremitting, and successful labours in the cause of your favourite sciences. I know of *no one* who has so sacrificed every object usually, I may add universally, dear to men's hearts, or who has shown such single-mindedness, such constancy in the pursuit of science, or such eloquence and ability in its exposition. I know not whether your pure love of truth has been mingled with a desire for fame, and honour, and admiration; but I do know that you have earned and obtained them all both at home and abroad. Your name is emphatically European; it is not unknown, as I can testify, in the kingdom of the ancient Goths and Vandals; it is not unrecorded in the modern archives of the capital of Attica and the schools of Eastern Empires. Your many scientific labours, and especially your papers on the Sponges, your lectures published long ago in the *Lancet*, your Outlines of Comparative Anatomy, etc., etc., form a noble part of our scientific literature. If any proof of our great esteem for you were required, I would say, look on this table, and around this table. Please to accept, then, Professor Grant, this microscope, on which you will find engraved the following words, dictated by three of your admiring colleagues:—

Presented to
ROBERT EDMOND GRANT, M.D., F.R.S., L. and E., F.L.S., F.G.S., etc.,
Professor of Comparative Anatomy and Zoology in University College, London.
By his Friends and former Pupils.
As a testimony of their esteem for his private worth, and of their sense of his eminent services in the cause of science.
1853.

Accept this microscope as a part of a testimonial borne by your friends to your great merits. I know that in your hands it will be the instrument of further research and discovery; and I wish you, most cordially, many many years of health, for the increase of your fame, or, rather, for the enjoyment of your already well-earned laurels.

Professor Grant then rose and said: Gentlemen, I was yesterday informed by my friend and colleague Dr. Sharpey, that it was your intention this day, to bestow upon me the valuable and highly-esteemed present I have just received. I accept with pleasure and gratitude this kind token of the regard and consideration of the many friends and former pupils who have contributed towards the donation. There is no form of compliment which you could have proposed to me, had I ever felt the smallest claim to any, more congenial to my taste, or which could have been more highly appreciated, or which would be more likely to prove of valuable service to me than the complete and splendid microscope you have now placed before me. And let me add, that the highly complimentary and gratifying inscription you have caused to be engraved upon it, very greatly enhances the value of this rich gift in my estimation. For the last forty years of my solitary pursuits in natural history, on the continent and at home, no source of scientific improvement, or of intellectual gratification, or of refined and enduring pleasure, has equalled that derived from the marvellous instrument which has revealed to me so many novelties, and beauties, and wonders, in the part of nature's works to which I have ever been most fondly attached. The numerous and complicated improvements which the advances of science and the arts have of late years added to the microscope, have greatly increased its value as a means of philosophical research, but they necessarily tend to place it beyond the reach of mere naturalists, and to render it less easy to keep pace with the march of improvement in that direction. In earlier years, it has more than once been proposed by my pupils in this College to confer upon me some mark of their esteem, which I have systematically opposed, upon the obvious ground, that its burden would necessarily fall upon the very few pupils who then attended my classes, and to whom I was already specially and doubly obliged. But, on the present occasion, the view laid before me by my early pupil, Dr. Ayres, of the kind intention of my friends and former pupils, did not appear to me liable to the same objections; and the very complimentary sentiments just delivered by my greatly-esteemed friend, Dr. Marshall Hall, confirm his view. As a token of regard from gentlemen so competent to judge, and who so long have had the means of knowing and estimating my career as a teacher and as a man, and with several of whom I have been intimately connected by the ties of friendship, and by many pleasing associations of early life, the worth of your donation will be more highly appreciated, and this instrument will ever claim to be prized by me beyond its high pecuniary value. In regard to the sacrifices to science alluded to by the learned Chairman, and to the remunerative character of zootomical and zoological pursuits, I may now, at this late period of my career, presume to form an opinion, as next year I shall have been forty years an author on comparative anatomy, and also exactly thirty years a public teacher of that science; and I must say, for those who may follow, that my whole past experience convinces me that no avocation to which the human mind could be directed, approaches, in its remunerative character, in the sense of affording the most pure, elevated, and durable happiness, to that to which my past life has been devoted. And had I now life to recommence, and my selection of a pursuit again to make, I could have no hesitation in choosing that which has crowded into my existence the greatest quantity of the highest enjoyment which can fall to the lot of frail humanity. The very kind respect ever shown me by my fellow-labourers in this rich vineyard of science at home and over Europe; my habitual contemplation of the most marvellous and beautiful scenes presented by the material or intellectual universe; the proud feeling of acquired superiority in the comprehension and the interpretation of a portion, however small, of the book of nature; the perfect union through life of my private tastes with my agreeable and healthful public duties; the consciousness of having been useful within my circumscribed sphere to the progress and the diffusion of a neglected science among my fellow-men; and the great and unceasing pleasure of communicating daily to the uninitiated the knowledge which has been accompanied with so much pleasure in acquiring. Were such a life of pastime also accompanied with lucrative emoluments, who could be found to prefer to it any of the routine professional avocations indispensable in human society? Such accessory advantages it is useful to pursue chiefly when they have been rendered necessary to satisfy artificial wants, to comply with a demand for ostentatious display, or to gratify a taste for public glorification, but they fail to add a single charm to the views or the contemplations of the student of nature. I will not now trespass longer on your time by entering on a narration of the past incidents of my public or private career, to some of which your illustrious Chairman has so honourably and so feelingly alluded, as they have been fully and faithfully recorded in the biographical sketch of my career, published by the active and intelligent Editor of the *Lancet*, about two years since, in his highly-esteemed professional Journal, but shall only again most sincerely thank you for this free, liberal, valuable, and most acceptable testimonial of your kind and indulgent estimation of my private character and my public career.

J. S. Bowerbank, Esq., F.R.S., then rose and said, that he had experienced much gratification in the performance of the duties of his office as treasurer; that he could assure Dr. Grant that the contributions to the Testimonial were spontaneous, and were truly the result of the high estimation in which his character was held by the subscribers, as an ardent and disinterested teacher of the natural sciences amidst many difficulties and discouragements. He would not repeat the kind and laudatory expressions that the Committee had received, in letters, from places as distant as Bombay and Calcutta, as well as from others nearer home; but it could not be otherwise than agreeable to Dr. Grant to know that there were many former pupils who entertained a grateful remembrance of the sound information they had derived from the numerous and valuable courses of lectures

he had delivered in the building in which they were now assembled and elsewhere; and there were old friends and contemporaries in science who appreciated his long-continued and arduous services as the author of the many original and valuable papers and volumes which have emanated from his pen on obscure and difficult subjects connected with natural history, among which he could not refrain from more particularly alluding to those on the organization and functions of the spongiadæ, which abound in new and accurate information of the utmost value to naturalists.

Dr. Webster, as an old friend and contemporary of Dr. Grant at Edinburgh, spoke in the most laudatory terms of the moral and intellectual worth of the illustrious Professor.

Professor Sharpey briefly proposed a vote of thanks to the Chairman, which was briefly responded to by Dr. Marshall Hall.

Dr. Lankester proposed a vote of thanks to the Treasurer, J. S. Bowerbank, Esq.; and the Secretaries, Drs. Webster and Ayres, for their exertions in the good cause.

APPRENTICESHIP CLAUSE IN THE ACT OF 1815.

The following letter has been addressed by Mr. Upton, the legal adviser of the Society of Apothecaries, to a correspondent who inquired whether he could be admitted to examination by the Court of Examiners without producing an indenture of apprenticeship:—

Apothecaries' Hall, Jan. 22, 1853.

Sir,—The inquiry contained in your letter is so fairly and properly made, that I depart from an established rule, and reply to an anonymous inquirer.

The necessity for a five years' apprenticeship arises, not from any regulation of the Court of Examiners, but from the express requirement of the Act of Parliament. The Court of Examiners, therefore, have no power to dispense with the requirement. At the same time, the Court have always been anxious to carry out the spirit of the enactment, and not to put a narrow or exclusive construction upon it; and they are, therefore, prepared to admit any candidate to examination who can adduce satisfactory evidence of his having served after the manner of an apprentice with a qualified apothecary. What evidence would be deemed by the Court satisfactory in any given instance must depend upon the circumstances of the particular case; but if the Court are satisfied that the student has conducted his medical studies under the direction and control of a legally qualified apothecary, in such a manner that the relation of master and apprentice has substantially existed between the parties, the Court will admit the candidate for examination, notwithstanding the absence of an indenture of apprenticeship.

The Society would be exceedingly glad that the requirement of an apprenticeship in all cases should be no longer demanded; and they have omitted no fitting opportunity of representing to the Government the desirableness of a change in this respect; but, while the law remains in its present state, the Society are, of course, bound to conform to it.

I am, Sir, your obedient servant,

Robert B. Upton, Clerk to the Society.

The Seamen's Hospital.—The thirty-second anniversary dinner of this charity (established on board the Dreadnought) will be held at the London Tavern on the 23rd of February, Sir James Graham, Bart., M.P., in the chair.

Milbank Penitentiary.—An inquest was held at this prison on Tuesday, the 25th ult., on the body of a man named Callicheo, aged 20, who committed suicide. A verdict of "Temporary Insanity, brought on by separate confinement," was returned by the Jury. This makes the second case of suicide which has occurred during the month of January in this penitentiary. Surely the Government will not allow these cases to pass by without further notice, or without earnestly considering the propriety of continuing the punishment of solitary confinement as at present carried out.

REVIEWS.

A Treatise on Auscultation and Percussion. By Dr. Joseph Skoda. Translated from the Fourth Edition by Dr. W. O. Markham. London: Highley. 1853.

The thanks of the Profession are due to Dr. Markham for having made Skoda's Treatise on Auscultation and Percussion accessible to the English reader. Manuals and treatises, on these subjects, it is true, are not scanty in our language; but works like Skoda's, bearing the impress of originality, deep thought, and great experience, do not abound among us.

It is well that we should be, from time to time, called upon, and stirred up by publications of this nature, to review our opinions, to try and to prove them. It may be that the student of auscultation has already been reposing too long and too contentedly, under the broad shadow of Laennec's authority, which, as the translator observes, "would naturally tend to immortalise even error." Doubts and errors and difficulties enough still cling around the study of this special branch of diagnosis to warrant us in asserting, that the last word concerning auscultation is not yet spoken.

Skoda, on many important points, is totally opposed to Laennec. He rejects Laennec's account of bronchophony, of ægophony, of pectoriloquy. His interpretation of many of the râles differs widely from that of the French physician. His views on percussion, and his statements thereon, will be found heterodox to those in ordinary acceptation, etc. All these topics we can but hint at in our limited space; we have no doubt that they will elsewhere receive the due consideration to which their author's position entitles them. Certainly, if Skoda's views are correct, Laennec's must be modified in many particulars; time and further observation will decide which of the two observers is right.

We are well pleased with the translator's preface. It contains, in short, a general summary of Skoda's chief doctrines, and, moreover, some judicious remarks concerning the nomenclature of auscultation at present in use among us. We have long felt, that the terms we employ are so vague and ill-defined as to render impossible any correct understanding of them. It is high time that some master hand should be brought to bear upon this subject.

On another topic we dissent from Dr. Markham. His pen is too bold and too acutely sharpened when he attacks over-refinement, as he calls it, in auscultation. Too great nicety may frequently produce error, we doubt not; but we must not forget, that it is only by minute and careful and close appreciation of facts, that high excellence is reached in any science, and fresh additions added to knowledge. Failure should teach caution, not produce scepticism. In the former case it urges a man onwards in the pursuit of truth, in the latter it engenders lassitude and indifference. We should not have objected to the following if it had come from one of greater years and more extended experience than Dr. Markham:—

"If I might venture, out of my own experience, to offer advice to those commencing the study of auscultation, I would strongly warn them from putting their confidence in that kind of teaching which boasts that auscultation can demonstrate the hidden workings of the thoracic organs, with something of the same degree of certainty as if they were the direct objects of the vision. I would rather say, approach the subject with a caution somewhat akin to fear and trembling; fix your faith as clearly as you please on clear, broad, and manifest positions, whenever you are certain that you have gained them, but play the sceptic's part with doubtful signs; assign them whatever just value may fairly attach to them, but never let them *rule your judgment*, for you will find them only too apt to do so when the diagnosis is difficult."

The stethoscope may at times lead us astray, and misguide our judgment, but let us remember how much more often it is to us a sure and certain monitor. We must be content here, as elsewhere, to receive together the good and evil which is the attribute of everything human. Uncertainty is not a charge to which medicine is more obnoxious than any other calling in life. Men are forced, every instant of their lives, to judge and act upon a sum of probabilities.

We cannot conclude this notice without saying, that the translation of Skoda is close to the original, and conveys well and clearly the author's ideas. As a literary production it does credit to the translator. Skoda's name is now so well known in connexion with auscultation, that it is almost superfluous for us to say, that his work should find a place in the library of every physician.

PROGRESS OF MEDICAL SCIENCE.

SELECTIONS FROM FOREIGN JOURNALS.

UPON CYSTIC SWELLINGS.

By Dr. PETRALI.

Cystic swellings, with watery contents, occurring in the neck, arise either from the thyroid body, (where they have been described by Porta under the name of "hygroma,") or from other structures in the neighbourhood of the larynx or trachea; in which case they have received from Maunoir the name of "hydrocele colli." The author relates the particulars of two cases:—A strongly-built man, aged 50, had an elastic fluctuating swelling on the right side of the neck, composed in front of two lobes, and extending from the chin to the sternum; the skin was unaltered, but the tumour was rapidly increasing. The author performed the following operation: the skin was divided longitudinally over the tumour, when a shining tendinous cyst was exposed, and opened in its entire length; there flowed from it an orange-yellow, inodorous, clear fluid. Through a fold of membrane in the lower part of the cyst, the pulsations of an artery could be clearly felt; it was supposed to be the internal mammary, or one of its branches. The whole sac was filled with charpie, and the edges of the wound were united by adhesive plaster. Soon a second cyst began to show itself beneath the mastoid portion of the sterno-cleido-mastoideus muscle, extending from the os hyoides. The author divided the skin over the muscle, separated its fibres and the fascia under it, and then saw the cyst, as a wedge between the carotid artery and the nervus vagus on one side, and the jugular vein on the other. An assistant dragged aside the artery and nerve with a hook, while the author made an incision into the cyst, whence flowed a quantity of limpid fluid. He then, by means of a trochar, made the two cysts communicate, and introduced a seton. Some other cysts were subsequently opened in the middle of the neck. The patient recovered.

A girl, aged 20, came to the author (August, 1843) with an elastic swelling in the right supra-clavicular region, extending from the cornu of the os hyoides and thyroid cartilage to the posterior border of the sterno-mastoid. An incision being made over the tumour, there was exposed an elastic and livid, but pulseless cyst, whence flowed a quantity of rusty-brown coloured fluid. The cyst contained some pale-red jelly-like substance, resembling coagulated fibrine. The cavity was filled with charpie. The discharge, at first bloody, became in a few days purulent. Iodine injections were used, and the patient recovered after a protracted convalescence.

The author thinks iodine injections most useful when the cyst is single, has no pouches, contains serous fluid, and can be punctured in its most depending part.—*Gazz. Tusc.*, 11; 1851.

REMARKABLE TUMOUR SPRINGING FROM THE INFERIOR MAXILLARY BONE.

By Professor STEIN.

A working man, aged 36, came to the Friedrich Hospital, 1846, for the following disease:—Six years ago he suffered pain, of remittent or intermittent character, in the first molar tooth of the lower jaw. After three years and a half, he had the tooth extracted; it was, however, sound, a small portion of the gum being adherent to it. Soon there sprang from the exterior of the torn gum a swelling, which increased slowly and without pain. When it had reached the size of a walnut, it was tied. It soon sloughed and fell off; but without pain or hæmorrhage. Again it grew, and without pain. It came between the front teeth, so as to prevent the patient shutting the mouth, or masticating food, and the saliva flowed in great quantity. His sleep was good. The author, upon examination, found that the morbid growth not only filled the entire mouth, but it extended forwards between the teeth. The upper part of the tumour was in contact with the hard palate; behind, it touched the soft palate, which was pushed backward into the pharynx; below it pressed upon the tongue, which, with the other soft parts at the floor of the mouth, bulged downwards towards the neck. In the act of speaking, the tip of the tongue was barely visible in the right angle of the mouth. The cheek was full and distended; there was no fluctuation. The swelling appeared to spring from the horizontal part of the inferior maxilla, and it concealed the back teeth completely from view; the canine and incisor teeth were loose. The operation of extirpation was performed in the following manner. An incision was made through the lower lip downwards to the chin; a second incision, at right angle to the first, extended from the chin along the lower border of the jaw; the flap was dissected from the tumour. The prominent parts of the tumour were then removed. The surface of the bone being now exposed, it was remarked that the tumour not only sprang from both sides of the lower jaw, but that it occupied the alveoli, whence the teeth had been partly detached and loosened. The rest of the bone seemed to be sound. The author, however, very properly determined that the whole of the bone in the affected region should be removed, that there might be no chance of return of the disease. With Martin's rotatory saw he took away the whole left half of the horizontal portion of the inferior maxilla, cutting through perfectly healthy bone and periosteum at both ends. The wound was properly brought together, and the patient recovered. Union took place in eight days.

The substance of the tumour was homogeneous. On the surface it was a little tougher than elsewhere. In many parts there were small bits of bone. It was laminated, the laminæ springing from the bone to the circumference of the tumour; and in that direction it was easily friable. No blood-vessels could be found. The alveoli were disfigured; the septa had disappeared, and their porous walls were occupied by the morbid substance. The periosteum was blended with the tumour.—*Hospitals Meddelelser, Bd.* 4, *H.* 3.

STRYCHNINE IN INCONTINENCE OF URINE.

By Dr. PANEL.

A man suffered from incontinence of urine for five months, in consequence of paralysis of the neck of the bladder, brought on by being disturbed in micturition. The urine flowed from him in drops. After the fruitless administration of strychnine internally, a solution was injected into the bladder (0·50 centig. of strychnine to 500 centig. of water). The patient recovered in thirteen days.—*Journal de Bord., Sept.* 1852.

STRANGULATED DIAPHRAGMATIC HERNIA.

By Dr. E. BUJALSKY.

On April 17, 1852, a young girl, aged 14, died in the Pawlow Educational Institution, Russia. Her father, a staff-officer, commanded a fortress in the Caucasus, which was stormed by some of the native tribes (Tscherkessen). Both father and mother were slain, and the child, two years old, received many incised and stab wounds, the scars of which were visible on the hand, leg, and left side of the chest, between the eighth and ninth ribs. The Tscherkessen took the child and reared it. After five years, its freedom was purchased by its relatives, and from the age of seven years it was placed in the Institution as one of the Crown pupils. The little girl often complained of severe pain in the left side of the chest, which was sometimes accompanied by sickness. April 15, severe pain, attended with sickness, suddenly came on. On the day following there were symptoms of enteritis. All remedies were unavailing, and death ensued on the 17th. Upon opening the body there was found in the diaphragm opposite the space between the eighth and ninth ribs, an aperture capable of admitting three fingers. Through the aperture a portion of the transverse colon with omentum, had inserted itself, and become strangulated. The strangulated portion was full of fæcal matter, and partly adherent to the opening in the diaphragm. The wound had in all probability been made by a dagger.—*Med. Ztg., Russl.* 26, 1852.

UPON INTERMITTENT FEVER.

By J. N. BASTING.

The author gives the results of his observations, which extend over 410 (mostly young) men, 123 women, and 63 children. The author found sex and age of influence, in so far that the tertian type never occurred in women or children. In men there were found complications with bronchitis, tuberculosis, etc.; in women, complications with bronchitis, scrophulosis, tuberculosis, chlorosis, scurvy, anæmia, hysteria, with menstrual disturbance; in children, complications with hydrocephalus, toothache, enteritis, croup, pneumonia, helminthiasis; in every age, with syphilis,

from the primary to the tertiary form. The tertian type was the most common.

The intermitting process can conceal itself under the appearances of most known forms of disease. The periodicity of the attacks can guard the practitioner against error. The simple tertian or quotidian intermittent fevers make their attacks mostly in the morning; the quartanæ mostly in the afternoon. The intermitting process can take footing on every ground, and no known dyscrasy or cachexy in Holland excludes it. The tertian form easily passes into the quotidian. The pain in the back, so often spoken of, is unimportant, and of no pathological signification. The enlargement of the spleen, so much insisted upon by Piorry, is very rare in recent cases, and not always present in the chronic. It is rather a consequence than a cause. Sulphate of quinine is no prophylactic against Asiatic cholera, between which and intermittent fever there is no relation. Relapses occur, if there are no special disturbing causes at work, on the 7th, 14th, and 21st days after the last attack. Salts of quinine are usually sufficient to master these morbid processes. Arsenic ranks far behind quinine, and is not to be recommended on account of its poisonous qualities. Sulphate and muriate of cinchonine, and sulphate or muriate of quinine, have equal curative properties. The first, however, deserves preference over the second, because its taste is much pleasanter, its medicinal effects less burdensome, and it is cheaper. In children, the muriate of cinchonine is preferable. —*Nederl. Lanc., III. Sen., No. 2.*

GENERAL CORRESPONDENCE.

THE COLLEGE OF SURGEONS AND ITS RESULTS.—MAN-MIDWIVES AND INCOMPETENT PERSONS.

[To the Editor of the Medical Times and Gazette.]

Sir,—The letter of Dr. Ramsbotham, in your number for Jan. 18, on the scheme lately put forth by the Royal College of Surgeons for the creation of licentiates in midwifery, demands and deserves the attention of the Profession,—every sentence ought to be pondered by the Council. What do the sapient gentlemen mean? With one hand they wish to throw upon society an indefinite number of men—men-midwives; with the other they attempt to allure by the *ignis fatuus* called a fellowship. I am really astonished at some of the well-established surgeons of this city, who, since the recent alteration of the charter, have asked and paid for the fellowship. The meaning, consistency, or advantage of this I cannot comprehend. Is the recommendation of half a dozen fellows and a 10*l.*-note better than examination and 10*l.*? Progress in thought and intelligence tells me No! I can obtain the requisite certificate, signed by twelve or fifteen fellows; but what earthly good a man can secure by changing an M into F, as an appendage to his name, I cannot apprehend. Perhaps some of my citizen professionals can tell me.

The College, if it rightly understood its function at this time, should legislate for the General Practitioner, who is the man for the present and for all future generations; and the question is, not what constitutes a surgeon or an apotheeary, but how is the General Practitioner himself to be confidently assured that he is qualified to practise, both in medical and surgical cases? or how are the public to know that he possesses the knowledge sufficient to make him a consultant in whom they may safely confide? It is impossible that any rightly-constituted mind can be satisfied with the very meagre examination instituted for the membership of the College; and the licentiateship of the Hall does not include any examination in surgery.

I say to a pupil, "You must pass the College and Hall—or the College and London University—or the latter only, as the examination there is a sufficient guarantee for the possession of knowledge in both departments—or the College and one of the Scotch Universities—St. Andrews is perhaps the best. You had better pass the Hall, as it confers the *legal right;* but if you object, take two examinations somewhere."

The Council of the College know well—they must know—that the line of demarcation betwixt the principles of treating external and internal diseases cannot be defined—they are too closely and inseparably amalgamated.

A step in the right direction of public professional feeling would have been to do what Dr. Ramsbotham recommends, to incorporate with the examination the subject of midwifery, and not only so, but those of chemistry, materia medica, and the practice of physic, and the examination should imitate that of the London University—be both *viva voce* and written—strict, extensive, and practical.

The College has heretofore positively inundated our towns, villages, and hamlets with incompetent practitioners. This is the rule. To allege that some of our first metropolitan surgeons have possessed its diploma alone, is mere sophistry—it is simply a fact which forms the exception to the rule. In this city there are nearly thirty practitioners with the diploma of membership only. A large proportion of that number I know, and I hesitate not to say that there is not one amongst them but would pass the Hall if he felt himself capable; but, from want of a preliminary classical education,—as in the case of some formerly druggists; or from time badly spent, misused, or squandered during their studentship,—as in the case of others; the examination at the Hall dare not be faced. The history of the latter is this. A youth enters to the medical school and hospital, and to those lectures the attendance upon which is required both by the Hall and the College. Unhappily, instead of pursuing a regular system of plodding, the lecture hours are spent in pelting his fellow-students with orange-peel; and the hours which ought to be used at home in study are murdered at the theatre, or billiard-room, or public-house. He falls in love with some servant girl or dressmaker, marries her, and, the necessities of a family coming upon him, he opens a druggist's shop, prescribes, and attends midwifery. For a time, the most ignorant are often the most successful; but in time, like the prodigal son, having fed upon husks, he comes to his senses, tries to return to his legitimate home; puts himself under a grinder; passes the College. Beyond this he does not go. In future, such a character will be content with the man-midwiferyship.

The history of the former is this:—He is a druggist, placed in a low locality, consulted "behind the counter;" and, having performed, as it is supposed, some "wonderful cures," believes he has the "gift of healing." He enters the medical school; grinds, and passes the College. Some fortunate event places pecuniary means in his power, perhaps the interposition of "death's fortune," or a rich friend; but beyond the College he does not go. He purchases a brougham, and, by the aid of that and the diploma, he overrides many of his more worthy competitors. These cases are not fictitious,—they are the unexaggerated histories of many of the mere members of the College in this and in other towns. It is to the credit of two or three, formerly druggists, that they have passed the double examination; and most heartily do I wish them the success which is due to the pursuit of knowledge, and its attainment "under difficulties."

Amongst the many so unqualified, it is not to be wondered at that several have been convicted of malpraetiee. One sat in the room of a patient in labour until he found her nearly dead from hæmorrhage. Not comprehending the cause, he sought advice. She died, and he was censured by a jury, and fined. Another has been repeatedly dogged and cautioned by the Medico-Ethical Society of this city,—which, by the way, I may observe, is better so employed than in circulating abstract and useless questions. Another, not long ago, committed himself by giving an overdose of opium to a child.

Nevertheless, these occurrences affect them not; they go on, and will do, till either the public or some unfortunate case of neglect or ignorance arise to bury them in deserved oblivion.

In this communication I set not "aught down in malice." I have arrived at that age when I am so established, or, peradventure, so un-established, that I cannot be affected either by the increase or decrease of these pseudo-practitioners. But their competition has great influence upon the success of young men fully qualified.

Two commence together in the same locality: the one has been steady,—strictly systematic,—industrious,—emulous,—a prize-man in the schools; the other is one of the class I have depicted; both have "surgeon" on the door-plate. The public know not but that they are equally qualified, and very often the more deserving finds himself supplanted by the less.

The anomalies now existing in the Profession are greatly to the injury of the public and of ourselves,—no wonder that homœopathists, and hydropathists, and gullists exist in abundance. I believe the time is rapidly coming when the Profession will unanimously insist upon the double qualification, or upon one uniform, equalised, and imperative.

I conclude, hoping that the attention of the younger members will be turned to this subject, and that they will agitate, and continue to agitate, until "equality, liberty, and fraternity" be the positive emblems of their competition in the honourable race of life. I am, &c. A. W. Close.

Manchester.

REMARKS ON MR. DE BERDT HOVELL'S INSTRUMENT FOR UTERINE HÆMORRHAGE.

[To the Editor of the Medical Times and Gazette.]

SIR,—In your number for January 8, page 35, is the description of a very ingenious instrument, invented by Mr. De Berdt Hovell, for the prevention of that form of uterine hæmorrhage which frequently occurs after the separation of the placenta. That it will prove a very useful and efficacious instrument for London practice I have no doubt, and, were it always obtainable at a few minutes' notice, would be almost invaluable; but it can be of little or no use to the country practitioner, whose patients frequently live in remote situations, probably four or five miles from his own residence. I have frequently sent this distance for the forceps in tedious labours, where the delay of an hour or two is of little consequence; but a case of hæmorrhage after delivery is a very different affair. The remedy, to be of any service, must be on the spot, and Mr. Hovell's truss is too bulky to be carried in the pocket to every midwifery case. I have been many years engaged in country practice, and have seen numerous cases of frighful post-partum hæmorrhage. Mechanical pressure has been my chief reliance, and to keep up this pressure for several hours my great difficulty. At last, however, I devised a plan, which has never yet failed me, and, what renders it of incalculable value, is, that the implements are always to be found, at a moment's notice, in every house, from the Palace of the Queen to the cottage of Her Majesty's meanest subject. This plan I described in the *Medical Gazette* for 1846, Vol. II., page 219, in answer to a plan devised by Mr. Pretty; but as this volume may not be accessible to many of your readers, I will, with your permission, transcribe the principal parts of that communication.

"Suppose, for instance, hæmorrhage to an alarming extent occurs immediately after the expulsion of the placenta, I instantly turn the patient on her back and grasp the uterus firmly with my hand, through the parieties of the abdomen, till I feel it contracting; then take a small bowl, or basin, capable of containing twelve or fourteen ounces, and having a thick, smooth edge. This basin I invert over the body of the compressed uterus, taking care that the whole of it is compressed within the cavity of the basin. I now confine it steadily by a towel folded lengthwise and passed under the hips of the patient, from right to left; then brought up over the basin and secured by three or four strong pins; or, in lieu of the towel, two strong silk handkerchiefs may be used in the following manner:—Let each handkerchief be folded separately, as a man folds his neckcloth; fasten them together at one end by a reef-knot, allowing the other two ends to remain free; pass the reef-knot under the hips of the patient, from right to left; bring it up over the basin, which should be firmly pressed down by an assistant. Now, take one of the free ends, and pass it through the loop, or bight, as a sailor would call it, formed by the reef-knot; draw it firmly down, and with the other free end tie a slip-knot exactly as the tapes are tied round the splints for securing a fractured limb. Thus confined, it is impossible the uterus can be again distended, and any further hæmorrhage must appear externally. Perhaps it will be as well to place a thin, soft napkin, or allow the patient's under-garment to remain between the surface of the abdomen and the basin, to prevent the possibility of its acting as a cupping-glass." I am, &c. G. HARVEY.

Castle Hedingham.

THE NEW MEDICAL REFORM BILL.

[To the Editor of the Medical Times and Gazette.]

SIR,—Six weeks since you did me the favour of printing some observations upon the New Medical Reform Bill, which I find from your leading articles of that day, as well as last week, are in unison with your views. I might, therefore, leave to your superior advocacy the cause of the General Practitioners, did I not feel that quiescence and apathy, even in the best cause, are damnatory of success, and that the reciprocity of sentiment freely and fairly expressed, is the only means of arriving at what is best to be done.

I quite agree with you, that the Bill in its present shape, is not worthy the acceptance of the General Practitioners; but I have not yet heard of any proposition or suggestion to make it so; and before I offer one it will be well to clear away difficulties by which we are beset. It is easy to point out defects, though difficult to prompt remedies; so also, when you have a good foundation, is it easy to raise a superstructure. Now, the third clause of the New Medical Reform Bill is the foundation whereon the subsequent clauses are to rest; let us, therefore, see that it be a good one, and that the General Practitioners are not excluded by a side wind (being called in the clause as it now stands MEDICAL PRACTITIONERS), and that they are not numerically so insignificant.

It will be necessary to define, before proceeding further, who are General Practitioners, for every one with any qualification at all, and numbers without the slightest pretensions, are usurping their functions. Graduates of Oxford or Cambridge, Licentiates of the Royal College of Physicians of London, Edinburgh, etc.; Members or Fellows of the Royal Colleges of Surgeons of London or Edinburgh; Licentiates of the Apothecaries' Company, etc., are not, in their single capacity, General Practitioners. Two or more of these qualifications combined, the apothecaries' licence being a *sine qua non*, constitute, in my opinion, the claim to be a General Practitioner. If this be conceded, we shall have a groundwork whereon to work; but will this definition settle the point? We have no college of our own, and to whom, therefore, are we to look to press our claims upon the attention of the Legislature, should the Bill come before Parliament this session? We cannot look to the Committee of the Provincial Association, as I think the majority of that Committee are not General Practitioners. In the present chaotic state of our Profession, unless the National Institute can be called into activity, we have only the Medical Press as the exponent of our views and feelings.

I have already trespassed so much upon your space without offering any practical suggestion, that I must, by your permission, defer doing so until next week, when I will resume the subject.

I am, &c.

A GENERAL PRACTITIONER, M.R.C.S. and L.A.C.

Norfolk.

[We have omitted one passage in our Correspondent's letter, which is founded upon a misconception.—ED.]

REMARKABLE LOSS OF TEETH IN THE UPPER JAW.

[To the Editor of the Medical Times and Gazette.]

SIR,—Having read the interesting communication of Dr. Thomas Inman, it struck me that a description of almost a similar case in my own person might be acceptable to that gentleman. I will therefore briefly state, that, a few years since, I began to suffer great pain in a handsome set of teeth, all of which were more or less affected, particularly when the stomach was out of order, when the pain at night was so intolerable, that I have frequently got out of bed, and scarified the gums freely, and, on one occasion, removed (of course with great pain, not having any assistance) one of the molars. I obtained the advice of that distinguished dentist, Mr. Bell, who recommended the application of leeches to the gums. This afforded great but only temporary relief, and, soon after, portions of the alveolar process began to exfoliate. I then consulted the late Mr. Liston, telling him that Drs. Koecker and Mitchell, whom I had previously seen, recommended the removal of several teeth, and drilling the antrum—an operation I had not the courage to encounter. This distinguished surgeon paid great attention to my case, and urged me to decline the operation, saying they (the teeth) were easier taken out than put in. I next consulted Professor Paget, who agreed with Mr. Liston, and recommended a trial of the potassii iodidum and ex. sarzæ Jam., and to refrain from all stimulants. Still I obtained little or no relief, and an offensive discharge from my gums compelled me to consult Professor Fergusson, who gave precisely the same advice as Mr. Liston. I then requested the opinion of Mr. de Méric. He informed me that some distinguished French surgeon, whose name I now forget, recommended drilling the antrum with a red-hot iron. This I thought was not so pleasant as Drs. Koecker and Mitchell's advice. At last I mentioned my case to Dr. Ayres, who kindly gave me a letter of introduction to Mr. Robinson, of Gower-street. That gentleman, after a careful examination of my mouth, at once told me he must remove two of the front upper teeth, which he assured me were imbedded in pus. Now, as these teeth were quite firm, and apparently free from disease, I hesitated to adopt his suggestion. After a few minutes I consented, and found, as he had predicted, that the fangs were quite dead, and pus immediately poured out, and continued to drain from the gums for some days. The teeth, which were previously loose and most painful, became firm and free from pain; and I am now enjoying the use of my masticators, including the two removed by Mr. Robinson, which he inserted in a gold plate, as well as any one could desire.

I should add, that I have no recollection of receiving any blow in the face severe enough to cause the serious injuries I suffered from so long, neither have I ever been salivated, or had the slightest touch of syphilis, or been exposed to the fumes of lucifer matches, as suggested by some of my medical advisers; and my general health is excellent. I am, &c. NEMO.

THE GENERAL PRACTITIONERS AND THE NEW MEDICAL BILL.

[To the Editor of the Medical Times and Gazette.]

Sir,—Your article of January 29 on this important subject, answering the accusation of "having printed some remarks absurdly ill founded," and "of having appealed for correspondence in support of your views," is, I believe, quite sufficient to silence such petty cavilling as well as to elicit more than approbation from every well-informed general practitioner. I trust, having taken up the subject, you will not relinquish it while any legislation is looked for, and, if you can place before us any advice or plan in regard to the position we should occupy in such legislation, I shall feel much obliged to you in common with many. I confess I feel a predilection with your correspondent "Anthropos," for an independent college, and which we should have gained if the National Association had stood its ground; but now, I fear, we may not rally for that; still, shall it be our fate to be cast in the mould made for us by the old colleges? We must take care to have a part and consent in the cast of our own professional character.

I am, &c. A General Practitioner.

Nailsworth.

REPORTS OF SOCIETIES.

MEDICAL SOCIETY OF LONDON.

Mr. Bishop, F.R.S., President, in the Chair.

No member having any morbid specimen or preparation to exhibit, the President announced that the Society would be happy to hear the remarks of any gentleman who might have anything of interest to communicate.

Mr. Dendy drew the attention of the Society to the eccentric forms of prevailing disorders, the consequence, probably, of the peculiarity of the season. He especially alluded to the extreme prevalence of sloughing abscess, marked evidently by degeneration of the crasis of the blood, and also by very peculiar states of the sensory nerves. This form of abscess in many cases was unusual to us, not assuming the characters of either anthrax or furuncle. The first stage in many instances was not a papula or tubercle, but a bulla, like that of pemphigus; the disease subsequently more resembled the condition of "anthracion," or "Persian fire." Mr. Dendy rejected the incision of the scalpel for the *free* application of the nitrate of silver from the first, which, by circumscribing the abscess, diminished the quantity of slough, at the same time not preventing the depuration of the blood. Tonics, as quinine and port wine, might be taken in most cases, almost without reservation. One lady suffering under a very large carbuncle on the nuchæ, took as much as two bottles daily, and this without much intoxicating effect. The most eccentric symptom, however, is an extreme hyperæsthesia of the skin, closely allied to that of hysteria; in the vicinity of the abscess, the touch of a feather, or the mere approach of the finger, creating intense pain. The depression of mental energy and natural fortitude was often extreme. One gentleman, of great moral courage, could not submit to an operation, without praying for the administration of chloroform.

Mr. Richardson had noticed the great prevalence of furunculoid disease alluded to by Mr. Dendy, and agreed with that gentleman in the particulars he had stated respecting it. He (Mr. Richardson) had observed, especially, that it attacked diseases otherwise of a simple character, and made them run a long and painful course. Thus he had a patient under his charge for the affection denominated as "housemaid's knee," in whom the tumour became inflamed and very painful, and at length presented many of the characters of a carbuncle, bursting and discharging itself by many apertures. In common with Mr. Dendy, he had noticed the morbid sensibility displayed in these cases, especially adjacent to the disease. Good diet, wine, and tonics were, in his opinion, the appropriate remedies; but he thought change of air was the most salutary of all, as he had seen a most obstinate case cured by its influence.

Mr. Hancock had met lately with several examples of the pustular affection adverted to by Mr. Dendy, and he was unable to satisfy himself that they presented all the characters of true anthrax. He thought, however, they were generally found associated with a disordered condition of the digestive canal, and an imperfect performance of the assimilative functions. His experience was adverse to treating them by incision. He had formerly adopted the plan, but he believed a boil thus treated was always followed by an eruption of two or three others. It was, he considered, far better to let the original boil run its course, and eliminate from the blood the morbid material which had caused it to arise. In common with the other speakers, he had employed good diet and tonics; but the remedy which he had found most serviceable was the nitro-hydrochloric acid.

Mr. Borlase Childs observed, that cases of this disease had fallen under his notice among the police,—a body of men whom he found peculiarly liable to epidemics. He agreed with Mr. Hancock in thinking that it was better to abstain from surgical interference, and let the disease run its course; and considered that the appropriate treatment consisted in enjoining a nutritious diet, accompanied with wine and tonic medicine.

Mr. Canton remarked, that he had seen several examples of the disease referred to, and was inclined to impute its prevalence to the humid and relaxing state of the weather. He had found great benefit follow the administration of the chlorate of potash,—a remedy which, he believed, destroyed the morbid material circulating in the blood on which the furunculoid eruption depended. He thought, with Mr. Hancock, that the disease should be suffered to run its course and exhaust itself; and treatment pursued with this object was, in his opinion, preferable to the application of caustics or other agents by which the eruption was sought to be repelled.

Mr. Hawkesley had uniformly observed a large quantity of oxalate of lime in the urine in these cases; and he was anxious to know if any of the Fellows had met with a similar formation in the cases that had occurred to them.

The President asked Mr. Dendy whether he had investigated the quality of the urine in any of the cases he had witnessed?

Mr. Dendy said he had not.

Dr. Davey read a paper on

THE PROXIMATE CAUSE OF INSANITY.

After briefly adverting to the difficulties as well as the prejudices which have beset psychological studies, and, after alluding to the writings of Hobbes, Locke, and others, whose opinions, he said, were thrown pretty much in the shade by more recent investigators, viz., Priestly, Lawrence, and more particularly by Gall, he proceeded to show that the doctrine of the reality of the mind so successfully taught during the last century by Haller and Bichat, had very properly given place to the more scientific, because more truthful conclusions of Gall himself. "There are yet, I fear," said Dr. Davey, "many medical men who refuse to insanity a physical cause, and remain content to recognise this dreadful infliction as one of an immaterial or spiritual nature." Dr. Davey demonstrated at considerable length, "the various *post-mortem* appearances observed within the cranium of the lunatic, together with the importance attached by various eminent writers in this and other countries to each of them, and their several connexions, with particular forms of mental disease;" and, having pointed out in the most conclusive manner the numberless contradictions and discrepancies to which Drs. Bayle, Calmeil, Foville, and others, had committed themselves, he presented for the inspection of the Society a series of tabular forms, designed to illustrate the facts disclosed on examination *post-mortem* of one hundred insane persons, who, he said, had died when under his own care at the Hanwell Asylum, during the period which he held office at that establishment, viz., from 1840 to 1844 inclusive; and these "facts," he argued, were in themselves confirmatory and demonstrative of the erroneous impressions of the pathologists named above. These "tabular forms," Dr. Davey assured the Society, showed the practical results of his own investigations into the primary cause of insanity, carried on in the dead-house of the Hanwell Asylum, and were commenced and carried through without any preconceived views or theory in relation to this department of our Profession, "If," said the author, "we will be at the trouble to observe what particular portion or portions of the brain and its investing membranes, etc., are found diseased, whether it be in cases of mania, or dementia, or melancholia, complicated or not with either epilepsy or general paralysis, it will be seen that the appearances *post-mortem* are such, and so united the one with the other, whether of this or that structure, that nothing definite can be made of them, regarded only as causes of mental derangement and its complications; *e. g.*, mania my be and is found with or without disorganization of the membranes,—with or without effusion into the sac of the arachnoid,—with or without appreciable disintegration of the vesicular neurine or grey matter,—with or without abnormal changes in the white or medullary matter; and similarly of dementia and of melancholia, and so of both the complications of mania and dementia with either epilepsy or general paralysis." The second part of Dr. Davey's paper, designed to reveal his own views on the subject, commenced with a brief exposition of the physio-

logical uses of the brain, introduced with the view of rendering the succeeding pathological remarks the more easily understood. "The brain is that portion of our organism," observed Dr. Davey, "by means of which the adaptation of man to the external world is in an especial manner made manifest. The external senses, ever on the alert, as good and trustworthy sentinels, supply to the brain an unceasing stream of knowledge of all the facts and circumstances which may surround us; and by means of these, and their relationship to the brain,—the central organ,—the affections of man are called into being, and his sympathies awakened; the emotions, also, are similarly excited to action, and the deep passions of our complicate nature aroused. Upon the integrity of the external senses man relies also for the stimuli necessary to the development and perfectibility of his intellectual powers. The cerebral mass itself is in every way adapted, by its peculiar organism, to the performance of these wondrous offices in the animal economy, composed, as it is, of various and dissimilar parts, each one ministering in an especial manner to the mental entirety of the individual." After a rapid sketch of the physical properties of the cerebral mass, and its heterogeneous and complicate form, etc., regarded as a fair indication of the very peculiar and exalted functions it was called on to perform in the human economy, it was asserted that the peculiar power of the nervous system resides in the grey or cineritious portion, and that the office of the medullary is simply that of a conductor. Dr. Davey proceeded: "If the production of the nervous power in a state of health is due, as it undoubtedly is, to certain and oft-recurring physical changes taking place in the cerebral organism—and this the result of nothing more or less than the difference of both the organic and chemical properties which distinguish the grey and medullary substances respectively—it must follow that any cause calculated to interfere with such certain and physical changes, whether it operate by either increasing or diminishing their frequency, or altering their order of succession, must, if it exceed certain limits, lead to the secretion of a "nervous power" of so altered a quality or quantity as to induce disease—insanity; or, to go further, if the organic or chemical properties which distinguish either the grey or medullary substances become altered in any way, if the "fatty matter," or "osmazome," or "albumen," or "water," bore their legitimate or normal form of combination, or relative proportion, in either one or the other, or both of these structures, and were to assume another character, and present *en masse* a dissimilar colour or consistence, and so on, it must follow that the same physical changes must be materially and injuriously affected thereby; and if these occur to the grey matter,—which is, I think, more commonly the case, this being the source of power to the other parts of the brain,—then will one or more of the affective feelings or propensities, or of the intellectual powers, give evidence of deranged action, according to the location and extent of the convoluted surface brought under the influence of the disease. The application of the facts and principles above insisted on to the every day history of individual cases of insanity is alone necessary to verify the origin and seat of this dreadful malady." Dr. Davey believes, that in mental derangement the "nervous power" becomes converted into "morbid sensibility;" thus "long-continued mental exertion, protracted anxiety, or excessive action of any one or more of the cerebral faculties, lead ere long to a morbid susceptibility of a portion or portions of the cineritious neurine; this, the source of power, intellectual and emotional, if overtasked, loses like any ordinary muscle the capacity to respond duly to the too frequent and long-continued calls made on it;" and hence is disease set up in this structure. Dr. Davey considers that insanity is proved to be a disorder of the nervous rather than of the vascular system, because of its frequency among the poor and half-starved in the lower classes, and not less by the general state of health of its victims in the middle and upper classes of society. All those appearances found on examination of the heads of insane persons Dr. Davey views in the light of effects rather than causes of disease. He quotes Dr. Billing as an authority to prove that disease commencing in the "nerve matter" ultimately involves the capillaries, and there becoming congested, inflammation and its consequent disorganisations may or may not succeed, according to the success or otherwise of the treatment pursued. After drawing a comparison between insanity and other disorders strictly called nervous, such as hysteria, chorea, etc., and showing, that in his judgment it—that is, insanity—is more closely allied to these than is generally imagined, Dr. Davey remarked, the same principles of treatment should be recognised in all; that in insanity, as in chorea, tetanus, and so on, it was of the first importance to establish a normal action of the primæ viæ, thereby insuring a healthy state of the secretions and excretions, both as regards quality and quantity, to counteract the debilitating influences of diseased action in the system by the use of tonic remedies, and in each one was it essential to be on the look out for any local inflammatory condition of particular parts. "In each and all of these affections," said Dr. Davey, "the adoption of that physical regime calculated to supply pure air to the lungs, appropriate food to the stomach, power to the muscular system, agreeable and varied occupation to the mental faculties, and tone to the perspiratory apparatus will be held as an essential element of treatment."

QUARTERLY RETURN OF THE MARRIAGES, BIRTHS, AND DEATHS IN ENGLAND.

Marriages, July, August, September, 1852.
Births and Deaths, October, November, December, 1852.

The births were 616,251 in the year 1851; and 624,171 in 1852. The deaths 395,933 in 1851, and 407,938 in 1852. The average annual rate of birth is 3·282 per cent., or nearly 1 in 30. In 1852 it rose to 3·472 per cent., or 1 in 29. The average annual rate of death is 2·242 per cent. (rather less than 1 in 45); in 1852 it was 2·269, or slightly above the average (1 in 44 nearly).

MARRIAGES.

76,582 persons were married in the quarter ending September, 1852, giving a considerable excess on the numbers (74,310) married in the corresponding quarter of the previous year. The number of marriages was 38,291, while in the summer quarters of 1840-3 the number of marriages never exceeded 29,397.

The rate of marriage is still high in London, and the marriages were 7109 in the last, 7345 in the previous, September quarter; whereas they amounted only to 5747 in the corresponding quarter of 1848.

BIRTHS.

152,066 births were registered in the last quarter of the year, whereas the numbers in the quarter ending December, 1851, were 149,155. The births registered in London, in the west midland counties, and in Yorkshire, increased; in the other divisions, the numbers scarcely exceeded those in the previous year.

Increase of Population.—As the births in the quarter were 152,066, the deaths 99,946, the natural increase was 52,120. The number of emigrants who sailed in the quarter from London was 12,322, Plymouth 1676, Liverpool 41,317; from the three English ports 55,315. The total numbers who sailed from the ports of the United Kingdom at which there are Government emigration agents, amounted to 57,913. Many who sailed from other ports are not in the return, and it is well known that a large proportion of the emigrants who sail from Liverpool are by birth Irish. At present it is probable, taking all circumstances into account, that the emigration from England is not equal to its natural increase. The number of emigrants who sailed during the year 1852 from the ports of the United Kingdom at which there are emigration agents, amounted to 350,647, or certainly not less, taking the year through, and other ports into account, than 1000 a day.

State of the Public Health.—9,946 deaths were registered during the last quarter of the year 1852. In the corresponding quarter of 1851 the deaths were 99,248. The annual rate of mortality in the last quarter is at the rate of 2·197 per cent., which is higher than the average rate, or than the mortality in the corresponding quarters of 1842-45, in 1848, in 1850-51, but much lower than 2·545 and 2·389, the rates of mortality in 1846-47. On dividing the country into two large divisions, the first of 117 districts, comprising the chief towns, and a population of 7,795,882, the second of 506 districts, having a population of 10,126,886, it is found that mortality in the town districts was, during the quarter, at the rate of 2·514 per cent. per annum, which is below the average (2·579), while the mortality in the country districts was at the rate of 1·982 per cent. per annum, or somewhat above the average of the corresponding quarter (1·941).

The unfavourable condition still prevailing in the towns is, however, too evident; to every 4 deaths out of a given number living in the country, 5 deaths occurred out of an equal number living in the towns during the last quarter, and on an average, out of equal numbers living, 4 die in the towns during autumn to every 3 who die in the country. The causes by which this mortality is wrought affect the whole organization of children, and must ultimately produce a degeneration of large numbers of the English race.

In *London*, the mortality was below the average; 13,861 deaths were registered in the December quarter.

The mortality in *Surrey*, *Sussex*, and *Hampshire* was below the average; in *Kent* about, in *Berkshire* above, the average.

The mortality was below the average in several districts of the *South Midland Counties;* but Uxbridge, Peterborough, Huntingdon, and a few other districts were exceptions to the rule.

The registrar of Middle King's Lynn, where the births of 235 living children were registered, has ascertained that, in the year 1852, 24 still-born children were interred by the sexton.

The mortality was below the average in all the *South-Western Counties*, except Wiltshire.

In the sixth division the deaths in *Herefordshire* and *Staffordshire* are above, while the deaths in the other counties are below, the average.

In the *North Midland Division*, the mortality in the counties of *Leicester*, *Nottingham*, and *Derby* is above, in *Lincoln* below, the average.

In *Cheshire* and *Lancashire*, the mortality is above the average. The deaths in Liverpool are fewer, in Manchester more, than is usual.

Yorkshire experienced the average rate of mortality.

The *Nothern Counties* have been less healthy than usual.

In *Wales*, 6005 persons died. Small-pox, through the neglect of vaccination, has been prevalent and fatal.

The meteorology of this unusual season is thus discussed by Mr. Glaisher:—

"The daily temperature was below its average value till October 19th, and it was alternately in excess and defect from October 20th to October 29th. On October 30th a period of weather set in, of higher temperature and longer continuance, at this season of the year, than any on record. The mean temperature of the month of November was 48·9° being 6½° in excess of the average of 80 years; during which period one instance only of a higher temperature has taken place, viz. in 1818, when the average temperature of this month was 49°. The mean temperature of December was 47·6° exceeding the average of the month by no less than 8¾°, and being of higher temperature than any December, so far as our records extend. The nearest approach to this value was in 1806, when the mean temperature of December was 46·8°.

"The quarter has been remarkable for a continuance of heavy falls of rain, which characterized the preceding quarter. In some places as much rain has fallen within this quarter as occasionally falls in the entire year. The fall in the year has greatly exceeded its average, amounting to 50 inches in depth nearly in the counties of Cornwall and Devonshire; between 30 and 40 inches at most inland places; and exceeding 58 inches at both Stonyhurst and North Shields.

"During the whole of the quarter the weather has been unsettled, the reading of the barometer has been subjected to great and frequent fluctuations, and has been generally low; the amount of water mixed with the air, in the invisible shape of vapour, notwithstanding the continued rain, has been that only due to the season, and, therefore, on account of the much higher temperature than usual, the degree of humidity has been less than that common to the season."

MEDICAL NEWS.

Royal College of Surgeons.—The following gentlemen having undergone the necessary examinations for the diploma, were admitted members of the College at the meeting of the Court of Examiners, on the 28th ulti:—

Balding, Daniel Barley, Barkway, Herts.
Ancell, M. Currie, Norfolk-crescent, Hyde-park.
Philpott, Henry Gray, Brighton.
Handsley, T. Artindale, Alford, Lincolnshire.
Barnes, G. Robinson, Leadwell, Oxfordshire.

At the same meeting of the Court, Messrs. George Fletcher Banks and John Norie passed their examinations for naval surgeons; these gentlemen had previously been admitted members of the College, their diplomas bearing date respectively November 26, 1847, and July 30, 1849.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, 27th January, 1853:—

Moore, Charles Frederick, Dublin.
Thousdale, Alfred, Gainsborough, Lincolnshire.
Woodd, Charles George, Bromley, Kent.

APPOINTMENTS.

Dr. Septimus Gibbon, of 7, Liverpool-street, Broad-street, Physician to the Metropolitan Free Hospital, etc., has been appointed Medical Examiner to the Lancashire Insurance Office.

Militia.—South Herts: Charles Drage, gent., to be Surgeon, vice Wm. Lloyd Thomas, gent., resigned.

DEATH.

Hills.—On the 21st ult., in his 62nd year, after a few days' illness, Mr. Monson Hills, cupper and surgery-man to Guy's Hospital. The death of Mr. Hills will be felt with as deep regret by those who have, for many years past, been educated at this school as it is by the present generation of students. He was a man who universally won, not merely the esteem, but the respect of all who knew him. To the professor, to the student, and to the patient, he was always the same. The same mild disposition, the same kind, unassuming, and strictly attentive manner, marked his career throughout, stamped on his appearance an air which in itself commanded respect, and gained for him that regard which he received during life, and that marked demonstration of esteem,—the last tribute that could be paid to him on this earth. The day of his funeral was a complete blank as regards medical studies at the hospital. Many old faces had assembled, and, at two o'clock, all collected on the colonnade, and formed a double line, consisting of the present students, with many of their predecessors, and most of the medical and surgical staff of the hospital, who all stood uncovered in hooour of the dead that was borne along amidst the profoundest silence. From the hospital, his remains were conveyed to the Norwood Cemetery, where he was interred, and whither a great number repaired to assist in the conclusion of the obsequies of one who had been long known to them as "Old Governor Hills,"—a title under which he usually went amongst students.

VACANCIES.

Dispensary and Hospital.—At the Warrington Dispensary a house-surgeon is wanted, whose salary will be 100*l.* per annum, with residence, fire, candles, and attendance. He must be a Licentiate of the Apothecaries' Hall, and must apply by letter on or before the 15th inst. At the Wilts County Lunatic Asylum, Devizes, there is a vacancy for a medical assistant to act under the direction of the superintendent. The salary is 60*l.* a year, with board and apartments. Application is to be made immediately.

Medical Prizes.—At a recent sitting of the Academy of Medicine in Paris, M. Orfila announced that he had made a gift to the Academy of 28,000 francs, to found a prize of 2000 francs every two years, to commence in 1855. This prize is to be awarded alternately for a question of toxicology and for some other subject of legal medicine. If on any occasion the prize is not given, the sum is to be 4000 francs the next time; and, if once more held back, 6000 francs the third time. If that sum should remain on hand, it is to be paid over to the funds of the Association des Médecins de la Seine, founded by M. Orfila.

Rejections at the Royal College of Surgeons.—No fewer than eleven candidates out of sixteen who presented themselves for examination were on Friday week remanded to their studies for various periods.

Dr. Dalton.—A proposal is on foot to erect a statue in memory of the late Dr. Dalton, the author of the atomic theory, in the Ardwick cemetery, where his remains were interred, and to found two scholarships in Owen's College, Manchester, one in chemistry and the other in mathematics, the learned doctor having been eminent for his success in applying mathematics in the elucidation of chemistry. The Mayor and the Bishop of Manchester are earnest in supporting the proposed subscription.

Microscopical Society.—On the 26th of January, G. Jackson, Esq., in the chair, a paper was read "On the Stellate Bodies, called Sporangiæ, found in some Fresh-water Algæ," by the Rev. W. Smith. In opposition to the opinion of Mr. Shadbolt, who first described these bodies, the author doubted if they could be regarded as sporangiæ, as he considered that they were rather parasites than any natural product of the plant. He proposed to give them the name Asteridia. A paper was also read by Professor Quekett "On the Occurrence of a Fungus and Crystals in the Heart of an Oak Tree."

Dr. Taylor on the Medical Evidence in the Case of W. B. Kirwan.—The number of the *Dublin Quarterly Journal of Medical Science*, just published, contains an interesting article

on the case of Kirwan, by Dr. Taylor, of Guy's Hospital. After commenting upon the evidence, it is remarked:—"I assert, as my opinion, from a full and unbiassed examination of the medical evidence in this case, that, so far as the appearances of the body are concerned, there is an ENTIRE ABSENCE OF PROOF that death was the result of violence at the hands of another. Persons while bathing, or exposed to the chance of drowning, are often seized with fits which may prove suddenly fatal, although they may allow of a short struggle; the fit may arise from syncope, apoplexy, or epilepsy. Either of the last conditions would, in my opinion, reconcile all the medical circumstances of this remarkable case. It is the result of twenty years' experience in the investigation of these cases, that the resistance which a healthy and vigorous person can offer to the assault of a murderer, intent upon drowning or suffocating him or her, is in general such as to lead to the infliction of a greater amount of violence than is necessary to insure the death of the victim. The absence of any marks of violence or wounds on the body of Mrs. Kirwan, excepting such small abrasions as might have resulted from accident, may be taken in support of the only view which it appears to me can be drawn, namely, *that death was not the result of a homicidal drowning* or suffocation, but most probably of a fit resulting from natural causes."

MEDICAL BENEVOLENT FUND.—At the meeting of the Committee, on Tuesday, the 25th ult., after the customary business had been gone through, and the various acknowledgments of grants had been read, the Treasurer made his usual report of the state of the finances, by which it appeared that the Fund was largely in debt to their Treasurer for advances. The Treasurer also reported, that he was in communication with a benevolent gentleman from the West of England, who was about to erect six small houses, which he proposed placing at the disposal of the Committee, for the reception of some of their annuitants. It was resolved that such offer be gratefully accepted. The following cases were then presented:—1. A medical man, with wife and five children, accustomed to a seafaring life, and destitute of employment, to assist him in obtaining such employment, and the means of acquiring a livelihood, 10*l.* to be placed in the hands of Mr. Toynbee, the Honorary Secretary to the London Committee. 2. A gentleman, aged 74, possessed of the highest testimonials, who had lived the laborious life of a faithful assistant, but who now, as years had increased upon him, as well as the infirmities of age, was incapacitated for active duty, and found himself, at an advanced age, without the means of support. It was resolved to make a grant of 15*l.* to him in two half-yearly portions, and to place him upon the list of candidates for an annuity. 3. This case was miserably poor, disabled from obtaining employment by paralysis agitans. Had been previously relieved, and was now voted only 5*l.*, in the hope that he might yet find employment as a writer. Cases 4, 5, 6, 7, 8, were referred for further inquiry, or as being incomplete from one cause or other. The following new subscriptions and donations were announced at the last meeting of the Committee as having been paid in the month of January:—

	Dons.			Subs.		
Miss Grant, Lackfield, Nairne, N.B., per Dr. Cormack	1	1	0			
Dr. Cormack, Putney	1	1	0			
Lutton, John, Esq., Newark	0	15	0			
Burnett, Dr., Alton				2	0	0
Irving, W. B. Esq., Newark				0	10	0
Marsh, John, Esq., Newark				0	5	0
Paris, S. M., Esq., Farnham (additional)				1	0	0
Blowen, B., Esq., Liverpool	0	10	0			
Toynbee, Joseph, Esq., London	5	5	0			
Stephens, Henry, Esq.				1	0	0
Ambler, Edward. Esq.				0	10	0
Brown, Henry, Esq.				0	5	0
Smith, Henry, Esq.				0	5	0
Godfrey, J , Esq., Liverpool	0	10	0	0	10	0
Martin, Peter, Esq., Reigate				0	10	0
Adamson, John, Esq., Rye				1	10	0
Smith, Robert, Esq., Whitehurch	3	3	0			
Kinderdine, Lieut., Macclesfield	0	10	0			
Kinderdine, J. B., Esq.				0	10	0
Ditto, (a Friend by)	0	10	0			
Morgan, Miss, Chester	1	0	0	2	2	0
Thackeray, Miss	0	10	0			
Pudford, Miss				1	0	0
Beck, Richard, Esq.				0	5	0
Parker, W., Esq., Woburn	0	10	0			
Evan, W. H., Esq., Ditto				0	10	0
Doosier, Dr., Caius College, Cambridge				1	1	0

LUNACY IN MARYLEBONE.—The report of the auditors of this parish, made recently to the vestry, states an extraordinary increase in the number of lunatics and idiots in the parish. In the first half of 1851 there were 316 persons so afflicted in the various asylums and in the workhouse of the parish; in the first half of 1852, that number had increased to 494, being an addition of 180 lunatics to those already chargeable on the funds. No cause is assigned in the report for this sad increase of insanity.

OBSERVATIONS ON SOME OF THE ABORIGINAL TRIBES OF NEW HOLLAND.—An interesting paper on this subject was read by Dr. T. H. R. Thomson, R.N., before the Ethnological Society, on the 12th ult.; Sir Benjamin C. Brodie, President, in the chair. The author stated, that, "of many tribes which, not sixty years ago, existed in the neighbourhood of Sydney, (each numbering from 200 upwards,) several have already entirely disappeared,—as the Botany Bay tribe; the Five Islands tribe; and of others only a trace exists in the debauched, enervated beings to be seen occasionally wandering about the streets of the metropolis of New South Wales." An account was then given of the intellectual and moral faculties of these tribes, together with their habits and domestic and social customs, the paper concluding with the remark, that there is but little doubt that many of the aborigines of New Holland are anthropophagous.

POISONING BY DIGITALIS.—A sad occurrence has happened at Glasgow, through the incautious prescription of a powerful drug (digitalis) by an unqualified person, in an enormous overdose. The unhappy victim, an intended Australian emigrant, suffering from a slight headache, applied to a friend, an assistant at a druggist's, for a certain medicine, containing a proportion of digitalis, which, he said, had always previously relieved him. It was prepared and taken, and immediately afterwards some doubtful symptoms became evident, and rapidly increased, so as soon to be very alarming. Although medical aid was speedily obtained, death took place in a few hours. The dose of the digitalis given is not stated in the *Glasgow Constitutional*,—the paper whence we derive these details,—but it is stated to have been so large as to astonish the Profession. The writer adds, "That the result is an accident cannot be doubted; but it becomes a grave question, how far parties professing to administer potions should entrust the manipulation of them to half-fledged students of chemistry or medicine." It is further stated, that the quantity of digitalis was so much in excess, that the wonder is, death did not ensue as quickly as if the patient had swallowed prussic acid. We last week recorded a case where the reckless exhibition of a monstrous dose of tincture of colchicum, used without professional assistance, deprived an individual of life; and there can hardly exist a doubt but that these accidents are of far more frequent occurrence than is generally supposed. Persons unacquainted with the properties and powers of drugs most certainly ought not to be trusted to prepare prescriptions, or even family recipes.

DEATH FROM GLANDERS.—An entire family, residing at Mangherow, near Lisadell, have been carried off by glanders, contracted from a horse purchased from the fairs in Mayo by the head of the family, who was soon infected with the distemper from the beast, then his wife and four children caught it, and they all died in great agony.

MORTALITY NOTABILIA.—The deaths registered in London in the week that ended last Saturday were 1011. This return exhibits a very inconsiderable increase on the previous three weeks. In the ten corresponding weeks of the years 1843-52 the average number was 1068, which, if raised in proportion to increase of population, would give a mortality for the present time of 1175. The deaths of last week are therefore less than the estimated amount by 164. During the month of January the mortality has been low for the season, 965 deaths having been registered in the first week, and in the subsequent weeks the number not having attained or having scarcely exceeded 1000. In the Table of Fatal Causes the results of last week correspond nearly with those of the preceding, the chief difference being in diseases of the respiratory organs, the cases of which, terminating fatally, become more frequent. These rose in the two weeks from 171 to 199. Epidemic diseases do not discover any remarkable feature. Typhus numbers 50 deaths, the largest contribution to the mortality of this class. In the sub-district of Brompton, at 1, Farmer's-place, on 25th January, the daughter of an ostler, aged 2 years, died of "hydrocephalus, dentition, pertussis." Mr. Stone says:—"This is the second death in one family in less than 3 weeks; the former occurred on 6th January, on which occasion I stated that the houses in Farmer's-place were in a state highly prejudicial to the health of the occupants." Last week the births of 902 boys and 810 girls, in all 1712 children, were registered in London. In the eight corre-

sponding weeks of the years 1845-52 the average number was 1440. At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·750 in.; the mean daily reading on Monday was 30·022 in. The mean temperature of the week was 37·7°, which is about the average of the same week in thirty-eight years. The mean daily temperature was on Sunday 38·6°, after which it steadily declined till Thursday, when it was 36°, or 1·4° below the average. It rose on the two following days to 39·2° and 38·5°. The wind blew generally from the north-east. The mean dew point temperature was 31·8°.

DEATHS *in the Metropolis for the week ending Saturday, January* 29, 1853.

Causes of Death.	Jan. 29. 0	15	60	All Ages.	Sum of Ten Weeks.
All Causes	451	324	235	1011	10683
Specified Causes	450	324	235	1010	10588
1. Zymotic (or Epidemic, Endemic, and Contagious) Diseases ...	150	33	14	197	2162
Sporadic Diseases:					
2. Dropsy, Cancer, and other Diseases of uncertain or variable seat ...	3	22	17	42	493
3. Tubercular Diseases	60	121	8	189	1808
4. Diseases of the Brain, Spinal Marrow, Nerves, and Senses ...	51	23	31	106	1217
5. Diseases of the Heart and Blood-vessels	1	27	14	42	375
6. Diseases of the Lungs and of the other Organs of Respiration ...	84	50	65	199	2216
7. Diseases of the Stomach, Liver, and other Organs of Digestion...	22	20	20	62	587
8. Diseases of the Kidneys, etc. ...	...	8	6	14	103
9. Childbirth, Diseases of the Uterus	...	5	1	6	104
10. Rheumatism, Diseases of the Bones, Joints, etc.	3	2	2	7	75
11. Diseases of the Skin, Cellular Tissue, etc.	1	4	2	7	19
12. Malformations	3	...	...	3	35
13. Premature Birth and Debility ...	31	2	...	33	210
14. Atrophy	22	1	1	24	192
15. Age	...	...	50	50	668
16. Sudden	3	1	1	5	109
17. Violence, Privation, Cold, and Intemperance	16	5	3	24	215
Causes not Specified	1	...	...	1	95

BOOKS RECEIVED.

Haynes Walton on Ophthalmic Surgery.
Kahn's Atlas of the Formation of the Human Body.

TO CORRESPONDENTS.

Dr. Boon Hayes's third Lecture on the Microscope will appear next week.

Errotum.—In the article on Drugs and their Adulterations, p. 63, 1st column, line 19 from the top, *for* "the 'London Pharmacopœia' (1824) directs that a pound of sulphur be boiled with four gallons of water," *read* "the 'London Pharmacopœia' (1824) directs that a pound of sulphur be boiled with two pounds of quicklime in four gallons of water."

M.B., Lond.—Write a brief account of the case, and we will publish it. The cotyledon umbilicus has, of course, failed to give any relief in numberless cases of epilepsy.

H. W. S.—Dr. Lionel Beale's Pathological Laboratory is at 27, Carey-street, Lincoln's-inn.

A Poor Sufferer.—You need not apply to any special glandular or cancer hospital, as you will be equally well attended to, if not better, at the institution named.

Our second article on "Drugs and their Adulterations," will appear next week.

The notice from the Geological Society arrived too late for insertion last week.

Students.—1. The Classical subjects for the next Matriculation Examination at the University of London are the Third Book of Livy and the Eleventh Book of Homer's Odyssey. 2. Chambers's Works on Chemistry and Natural Philosophy would answer very well for the purpose of reading, but it is essentially necessary to have practical instruction, also, in the above subjects.

A Student of a London Hospital.—It is necessary for those who intend to become Fellows of the College of Surgeons by examination, that they should have served the office of House-surgeon or Dresser in a recognized hospital in the United Kingdom, but no period is fixed by the Bye-laws of the College within which such house-surgeoncy or dressership should be comprised.

M.R.C.S.—The preliminary examination in Classics, Mathematics, and French, for the Fellowship of the College of Surgeons, is held in the months of April and October. The Professional examination takes place in May and November. The subjects of examination are Anatomy, Physiology, Pathology, Therapeutics, and Surgery. The candidates have to perform dissections or operations upon the dead body.

One who dabbles in Physic should meddle no longer with what he knows nothing about.

A Subscriber of some Years.—We cannot undertake to obtain the information you require. Apply to some Government official.

Mr. Day.—It has been suggested that in cases of insomnium the treatment should depend upon the condition of the pupil; it having been found that in cases in which the pupil is expanded or dilated, opiates are the most eligible; where it is contracted, belladonna.

A Young Practitioner.—We cannot give you any other advice than to be very careful in purchasing a practice. We know nothing whatever about the gentleman alluded to.

One who does not belong to the College of Physicians.—Apply personally or by letter to the Secretary, and he will doubtless favour you with a card of admission to all the lectures to be delivered in the present year.

A Student with the Microscope.—The drawing sent is a representation of the Acarus sacchari, or sugar insect, which is found in almost every kind of moist or brown sugar. It belongs to the same genus as the Acarus scabiei.

Dr. Turnbull's request shall be attended to.

Mr. Thomas Bickerton.—As you made the *post-mortem* examination without the coroner's order, you are not entitled by law to any fee.

Dr. Edwards Crisp.—We regret that we cannot give insertion to Dr. Crisp's letter. It is no part of our object in conducting this Journal to encourage feelings of animosity between the different classes of the Profession. An apothecary has no moral right to call himself a physician or a surgeon, however lax the law of the land may be in permitting him to do so.

CORRESPONDENCE IN REFERENCE TO DR. BOON HAYES'S LECTURES.

W. R., London.—M. Pillischer's simple microscope *will* distinguish blood, pus, and urinary deposits.

Micrometer.—You are certainly right, and I have no doubt that some uniform plan will soon be decided upon. To the second question, most certainly; we are not only willing but anxious to receive any suggestions.

Eye-piece.—Oberhäuser's eye-pieces are numbered I., II., III., etc., according to their power, several being used with each objective. We certainly seldom use more than two, and these are called "the common and the deep" eye-piece, respectively. The objectives are also similarly *numbered*, instead of being *lettered* A., B., C. Their powers must be determined by means of micrometry.

Histologist.—Read the caution contained in the next lecture, and your eyes will no longer suffer.

Students, Edinburgh.—The sitting is doubtless the only position for continued observation.

J. M'Colahan, Dublin.—The Third Part of Dr. Pereira's Work is not completed, and it is not yet known who will be selected for that duty.

We have been compelled, from want of space, to postpone several Original Communications. The following are in Type:—Observations on a Recently-published Work, entitled "The Fever at Bua Vista, unconnected with the Visit of the Eclair to that Island," by Gilbert King, M.D., Inspector of Hospitals and Fleets. By J. O. M'William, M.D., F.R.S., R.N.—Cases, with Remarks. By C. J. B. Aldis, M.D., F.R.C.P.—Cases of Placenta Prævia. By Charles Waller, M.D.—On the Use of Mercury in Hydrophobia. By Bernard E. Brodhurst.—Also, a Report of the Middlesex Hospital.

COMMUNICATIONS have been received from—

Dr. Hofmann, Royal College of Chemistry; Dr. Burrows, St. Bartholomew's Hospital; Mr. Relfour, Royal College of Surgeons; C. H. R., Harleyford-road, Kennington; H. W. Sibley, Esq., Middlesex Hospital; A. W. Close, Esq., Manchester; J. N. Stevens, Esq., Plymouth; Dr. Edwards Crisp, Parliament-street; Wm. Pinder, Esq., District Surgeon, Clitheroe Union; A General Practitioner, Nailsworth; Dr. Parkes, Harley street; Alexander Thom, Esq., Mauritius; Dr. Letheby, London Hospital; Dr Searle; Dr. Septimus Gibbon, 7, Liverpool-street, Broad-street; A General Practitioner, M.R.C.S., and L.A.C.; Dr. Boon Hayes, 20, Bolton-street, Piccadilly; R. G. Mayne, Esq., Leeds.

ORIGINAL LECTURES.

HISTOLOGICAL ANATOMY AND MICROSCOPICAL MANIPULATION.

By Dr. BOON HAYES.

Formerly Lecturer on Anatomy, Physiology, and Pathology, at the Sydenham College, Birmingham.

Lecture III.

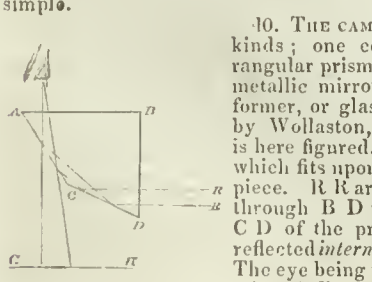
Summary:—37. Accessory Apparatus—38. Achromatic Condenser—39. The Polariscope—40. Camera Lucida—41. Micrometer—42. Dark Chamber—43. Diaphragms—44. Stops and Wells—45. The Bull's-eye—46. Manipulating Apparatus Generally—47. Valentin's Knife—48. Stage Glasses—49. Their Arrangement—50. Over Glasses—51. Histological Drawings—52. Plan of the Field—53. General Rules for Manipulation—54. Illumination—55. Stage Movements—56. Sources of Fallacy in Observation—57. The Purchase of a Microscope.

37. The accessory apparatus of the microscope consist of certain instruments sometimes used in microscopic observation, not already described. They are of two kinds, optical and mechanical. The common optical apparatus are, the achromatic condenser, the polarising apparatus, the camera lucida, the micrometer, the dark chamber, diaphragms and stops, and the condensing lens. The common mechanical apparatus are, various needles and knives, as Valentin's knife, stage glasses and cells, etc.

After briefly describing these and their use, I shall give some general directions upon microscopical manipulation.

38. The achromatic condenser is, *optically*, constructed like all achromatic lenses. It fits or screws on to the bottom or under-part of the stage, and is capable of adjustment by means of a screw or sliding catch. It condenses and achromatises the light reflected from the mirror, before this passes on to the object; so that, when used with the compound achromatic microscope, not only is the light which illuminates the object rendered *colourless*, but any source of error arising from the operation of the stage glass, and the refractive power of the structure itself, is corrected by the objective. This is the most delicate method of manipulation conceivable; and, when the *foci* of the two sets of achromatics are respectively adjusted, you avoid almost every possible cause of mistake produced from chromatic aberration. When employing it, the light must be reflected from the plane mirror. I should not advise you to purchase this piece of apparatus until you have made yourself most thoroughly acquainted with the appearance of several test objects. You will then appreciate its value as a delicate instrument of manipulation. Many very good microscopists, however, do not use it; and it is applicable rather to the most delicate structures than essential for ordinary observations.

39. The polarising apparatus consists of an *analyser* and a *polariser*. The former is fixed above, the other below, the structure under investigation. These have at present been but little applied to the ordinary examination of animal tissues and products, although they form an apparatus which promises much, both of interest and instruction, when so employed. You need not, however, go to the expense of purchasing it *at present*, for you will not want it during the *first* part of this course; and I shall, at a future period, give a supplementary lecture on *its* construction and use alone, especially in reference to urinary deposits. To appreciate its construction thoroughly, considerable attention to the laws of polarised light is required, and detail too minute for my present object. Its mere application is, however, very simple.



40. The camera lucida is of two kinds; one consisting of a quadrangular prism, the other of a small metallic mirror or speculum. The former, or glass one, was invented by Wollaston, and the section of it is here figured. It is set in a cap, which fits upon the top of the eye-piece. R R are rays of light passing through B D to the oblique surface C D of the prism, and are thence reflected *internally* to the surface A C. The eye being placed as in the drawing, that is, above the surface A B, sees the image at right angles to its former position, in the line G H. This particular arrangement of the prism is generally used with the compound body, placed horizontally, and hence is adapted principally to those microscopes with an oblique movement. It can, however, be used with Nachet's instrument. The mirror is turned out of the way, and the object illuminated by *direct* light. The object will be seen anywhere in the lines of light diverging from the eye, as figured in the diagrams, but, of course, will vary in its size according to its position; the nearer the eye the less, and *vice versâ*, differing in size, in fact, from the simple magnifying power of the lens to the size of three or four feet. If you are collecting a series of drawings of microscopic objects with the camera lucida, and wish to preserve them all of the same scale, you must always have the *same distance* between the top of your prism, *i. e.*, the line A B and the paper on which you draw, *i. e.*, the line G H.

The small metallic speculum, or mirror, is fixed above the eye-piece, at an angle of 45° with the surface of the ocular; and, the microscope being adjusted as before, the eye sees the object reflected in this mirror; that is, by that part of the pupil which is not *stopped up* by the speculum. This is a much simpler and less expensive camera than Wollaston's; but there is one objection to its use—at least, as far as my experience is concerned—viz., if the object you examine have to be highly illuminated, the pupil will contract too closely for distinct vision with this arrangement. It would be almost impossible to *describe* how a drawing is manipulated by the aid of this instrument, or, at all events, it would take too much space, and be apart from my present purpose. *This must be shown by the teacher.*

For all ordinary drawings, the eye alone is quite sufficient, especially when assisted by a little arrangement of the field, to which I shall refer in the course of this lecture. (51)

41. The micrometer, (μικρον, μετρον,) or "measurer of small objects," is used for ascertaining the absolute and comparative size of microscopical structures. Its use and application should be especially known by all who are pursuing microscopic research on newly-discovered subjects. It is not of course of so much importance in ordinary structures, because these *have* been measured by various histologists, and their size is, for the most part, agreed upon. There is a very common and useful way of using a natural object as a *micrometer*, as, for instance, a blood globule; your eye soon gets accustomed to its size, and the memory retains its appearance and size very readily; you can then say: such and such a structure is, as a whole, or as to its parts, in size greater or smaller than a blood globule.

There are several kinds of micrometers. I shall give a *simple* illustration of their action only? "The stage micrometer is most readily understood. It consists of a glass slide, on which a number of minute lines are scratched—so many in a given length and breadth;—you may, indeed, have it marked out in lines only, or in squares. To use it you need not know the power of your instrument. Thus, say there are 200 lines in an inch, every one is the $\frac{1}{200}$ of an inch from its fellow, having placed an object upon this slide, examine it with the microscope,—this magnifies both object and lines equally,—you can see that the object just *fits in*, say, between two lines; that object, then, is the $\frac{1}{200}$ of an inch in length. There are other modes of performing micrometry, as with the eye-piece micrometer, etc., and the mode I have referred to, though the simplest, is perhaps the most objectionable. I shall give the minuter details of these subjects in a supplement to these lectures. I do not give them now, *not* because they are unimportant, but, first, because they will be better appreciated after a little acquaintance with the microscope and physiological structures generally are acquired; and, secondly, because I am anxious to overtake what I am sure most of you are especially looking for, namely, "the histiology of the tissues."(a)

42. The dark chamber is a double tube, which fits on to the under part of the stage. It contains a telescopic movement in its interior, by which it can be lengthened at pleasure. The inside of both tubes is blackened. Into its top a series

(a) I may here mention, that Professor Parkes, of University College, Dr. Lyons, of Dublin, and myself, have been greatly impressed with the importance of the *uniformity* of nomenclature in reference to the micrometry of microscopic objects, and, in all probability, some distinct and simple plan will be soon *mutually* agreed upon which may be thought worthy of being made public. If so, this will be referred to definitely when I give a *distinct lecture* upon physiological and pathological micrometry, with a table of the size of microscopic elements.

of diaphragms—or plates of metal with a central aperture—may be fixed, according to the amount of light required; by adjusting the telescope tube you may obtain every possible shade of light, as to amount, *between* one aperture of the set of diaphragms and another. This is the most delicate method of altering the amount of light without moving the mirror, the plant of the instrument, or the light itself, with which I am acquainted. I seldom work without *it, or*

43. A very common kind of DIAPHRAGM, namely, a *circular revolving plate*, fixed to the under-part of the stage; it has from four to six holes in it, placed at certain definite distances, diminishing in size from one nearly corresponding with the aperture of the stage to one not more than the eighth of an inch in diameter; each aperture, when adapted as a diaphragm, is made to stop in its revolution by a small catch, so as to be concentric with the aperture of the stage and the lenses of the compound body. This is adjusted to all the continental types of microscope, and, with the *tubular stand* peculiar to those instruments, gives all the advantages of the dark chamber and circular plate combined. (42)

44. STOPS or WELLS are used with the Lieberkuhns; they may be said to have an action the reverse of that of diaphragms; that is, they cut off the central light and allow the light to reach the Lieberkuhn from *all sides* of the object. One is represented in (19.) The object of the "well" arrangement is to prevent a surface action, which might arise from a disc, otherwise a disc would do for a *stop*. You will require stops of several sizes, according to the power of the lens you are working with.

45. The condensing lens is a large lens, or bull's-eye glass, something like a burning-glass, capable of collecting the rays of light to a focus, for the superficial illumination of objects, or for looking at those structures which are too opaque to be viewed by transmitted light. In the continental type of microscope it is fixed to the compound body by a jointed arm; in English microscopes it is generally separate, on a stand by itself, and is capable of being moved up and down the stem of this stand, so as to allow of adjustment for height, etc.

Now, this condensing lens, a set of diaphragms, Lieberkuhn's condenser, are absolutely essential to a correct appreciation of the subject as you proceed. The micrometer, polariscope, and achromatic condenser, are inessential *at present*; not inessential to you as microscopists, but to your present progress with this course of lectures.

46. It is of no use to go to expense in purchasing MANIPULATING INSTRAUMENTS for the microscope. Any one with the slightest amount of ingenuity can prepare such things on the spur of the moment. Among my own instruments are a couple of sharp old razors fixed firmly in a handle; several sized needles fixed in the end of blacklead pencils, the opposite end of which is kept sharp for writing with, or for drawing the structures you are looking at; half a dozen crochet-needles with their usual handles; a *very fine* metacarpal bone-saw; one or two files, of the variety called "three-square flat;" a hone and razor-strop; besides an ordinary dissecting-case, in which are several *fine forceps;* half a dozen watch-glasses, numbered like the slides or stage-glasses (48); a pipette, which you may make out of a simple barometer-tube; a glass rod or two; and half a dozen small stopple bottles for holding various re-agents, as liquor potassæ, dilute and strong acetic acids, tincture of iodine, nitric acid, etc. But all of these need not be purchased at once; *get them only as you feel the want of them.* The only thing which is essential is *a box to keep your tools and glasses in, and two pieces of wash-leather,—one for cleaning your instruments and the other for drying them after they have been used.*

47. VALENTIN'S KNIFE is employed for cutting sections of injected, semi-solid, and other specimens. It has two blades, which may be made to cut at any ordinary distance from one another by a screw and spring, like the arrangement in spring compasses, or architect's pens for ruling with Indian ink. It is of very little use for ordinary purposes; at all events, do not buy it till you want it. If you make anything like progress, however, in these studies, you must have it.

48. STAGE GLASSES, or the glasses on which you place the structure to be examined, are small pieces of plate-glass, three inches by one, which may be purchased at 8d. a dozen at any of the larger opticians. They are called *stage* glasses, because you place them upon the "stage" when looking at any structure. Their edges are ground for the sake of neatness, and to prevent them cutting the fingers. *They should never be kept in contact*, but in a little box with a rack on both sides to hold them apart. These boxes may be purchased for about 1s. Glasses should always be washed *after* having been used, and again wiped *before* being used.

49. You will find it advantageous in conducting a microscopic analysis to have your stage-glasses numbered 1, 2, 3, 4, 5, 6, 7, 8, etc. You can thus refer to them easily, and, if you take one off the stage to look at another, you are quite independent as to where you lay it down, and need take no further notice of it until it is wanted again. Many other advantages arise from this arrangement. You can number the glasses yourself with a diamond ring, or your optician or a glazier will do it for you at once.

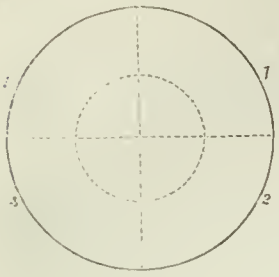
A large piece of clear plate-glass, six inches by four, and ground at the edges, will be useful for a dissecting-stage; several such pieces are useful indeed, and you may suit them to your own stage.

50. OVER GLASSES are thin plates of glass cut into a square or round shape, which may be got for about 4s. an ounce from any of the larger opticians. They must always be used with fluid specimens, when the oblique movement is employed, or when evaporation is likely to be going on, as with recent *post-mortem* specimens. The objectives are thus prevented from being dimmed or wetted. Of course the over glasses slightly interfere with the refraction of the objectives, which are corrected for uncovered specimens. This interference, however, is obviated by the beautiful arrangement supplied with some objectives for covered and uncovered structures.

51. In studying the PRACTICAL USE OF THE MICROSCOPE, if you wish to become an adept in manipulation and an accurate observer, let me advise you to attend particularly to what I am now about to remark. Obtain a small bound book, about the size of an ordinary copy-book, of unruled paper, and having in it about 150 pages. Upon each page near the top draw a circle similar to the one described in section 52. *This should be of the size of the field of your microscope.* In it, in a manner which I shall presently describe, *make a point* of sketching what you see when looking at a structure for the first time. Beneath write whatever remarks may occur to you, or any memoranda of importance. Never fail to do this, and, difficult as it may be at first, in a few attempts it will become so easy that the effort will hardly be perceptible. Do not attempt shading or elaboration at first, but simply *outline*. In my practical classes each student does this for himself; and the drawings and specimens are then compared either with other specimens or the drawings of another observer. It is really astonishing the amount of information which each student picks up in this way; and, by the end of the course, he has *a small work on practical histology, illustrated by himself*, which is to him infinitely more useful than the most exquisitely-wrought book or the most accurate pencillings by another person; and every man who can write his own name can learn to draw sufficiently for all the practical purposes to which I refer.

52. THE PLAN OF THE FIELD.—Illuminate the object-glass of your microscope; now look down the compound body; you see a bright disc of white light bounded by the extent of the field of your microscope; this is determined by the power of your ocular. This field may be regarded as divisible by two diameters crossing one another at right angles into four equal parts or quadrants. These imaginary diameters are represented by the dotted lines in the diagram. A smaller concentric circle is also represented, by which we get eight parts, in two equal sets of four, called 1st, 2nd, 3rd, 4th, as figured, the 1st and 4th being the distant or top quadrants of the field. Now, get in the habit of dividing the field of observation in your microscope into such imaginary quadrants as these, and you will find the utmost convenience from the plan. You should, however, know the size of this field, so as to be able to draw it exactly. This may be readily ascertained as follows:—Take a piece of white pasteboard, six inches long and one broad, and, one inch from the top, draw a well-defined black line; then place it outside the compound body, near the field-glass, or some constant spot against the compound body, and look with one eye down the tube, and with the other upon the card. Draw this card towards you till the upper part of the circumference of the disc of light coincides with the black line on the pasteboard; then carry up the thumb-nail along the card-board until its edge corresponds with the opposite edge of this circumference,—that is, so as to make the edge

of the card-board a true diameter of the disc of light. Divide this, and it gives you the radius, the point of division being the centre of the circle. This having been once measured and noted, you may strike off as many circles as you please without repeating the process, or you may save yourself this trouble by requesting your optician to tell you the size of the field. The advantages of this arrangement are as follow:—First: You can describe the position of objects to other observers exactly; this is an immense advantage to teachers of histology. Secondly: You can economise time and space in the comparison of objects in their behaviour with re-agents—and the marked stage-glasses (48) correspond with the numbers of the quadrants, so that their appearance with different re-agents may be drawn in separate quadrants. Thirdly: You may use it as a rough kind of *micrometer*. You should now exercise yourself with this artificial division.



Example.—I have this moment before me a specimen of urine containing spermatozoa, vesical epithelium scales, blood and pus, and casts of tubes. I am about to demonstrate these to some gentlemen in my class who never saw anything of the kind before. The objects are scattered all over the field, but some specimens are seen *best* here, some there. These are my directions to the student(a):—Look in the *third quadrant inner circle*. There are some spermatozoa, three in number. You can see *one* very distinctly. Now, draw that one in its proper position in the circle in your book. In the fourth *quadrant outer circle* is a magnificent fibrinous cast. It differs from everything else in the field, and one end of it comes into the fourth *quadrant inner circle*, touching some flat scales. Don't notice the scales there, for you see some better in the first *quadrant outer circle*,—and so on. The student thus gets a definite and systematic way of looking at the field of his microscope, and, instead of drawing the *confused* mass sometimes presented to his view, he picks out the best parts and specimens in each observation, draws these, and, as the size of his *paper-field* corresponds with the real field of vision, it directs him almost as well as a micrometer in his delineations.

53. I may group a series of practical hints, which have little connexion with one another, and yet in the observance of which generally is all the difference between the artist and the bungler, as follows:—

1. Choose a steady place and a steady light for the plant of the instrument. No artificial light, *without a shade*, will do; and almost *any* artificial light (candles excepted) with a shade, *will*.
2. *Sit down*; rest your elbows or arms upon the table or support; have your hands and fingers at liberty, and adjust the eye-piece to your eye, so that the angle of the inclination of your head causes no feeling of constraint. This should be done with every make of microscope.
3. Several may work at the same table, but no two should *sit on the same seat*. *Stools should be used in classes.*
4. Never let the lenses of your microscope get dirty, but, if they should, ascertain on which lenses the dirt is, and clean them with water or liquor potassæ,—spirits of wine.
5. If on the eye-piece, the objects or spots of dirt will move when it is *turned round*. If in the objectives, when they are moved; if they are in neither, they are upon the mirror; and, if not there, your eye is slightly congested. Lessen your light, and look at something green for a few minutes.
6. Get in the habit of using the fine adjustment *as little as possible*; beginners and bunglers use it incessantly.
7. If you use the continental make of microscope, in sliding the compound body in the clamp, *always twist it at the same time*.
8. Do with the lowest magnifiers possible, especially in the eye-piece.
9. Use the least amount of light possible, if you are working for any time.
10. Never remove an eye-piece or an objective without putting it away in its proper place.
11. Always look at an object with *both eyes open*.
12. Acquire the habit of looking with one eye as well and as commonly as with the other; and, if you *cannot* accomplish this, use the *left* eye. (This is far more difficult with most people than Rule 11; both are of the greatest importance.)
13. Learn the magnifying power of your microscope with every optical combination you possess. This you may ascertain for yourself, (see "micrometer,") or, what is better at first, learn it from the optician from whom you purchase your instrument.
14. If you have several objects on the field, don't look at them all at once; in ninety-nine cases out of every hundred each object will require a separate adjustment for its most perfect demonstration.
15. When you have got the best demonstration of an object, IMMEDIATELY DRAW IT in its position on your paper-field, and write your observations down AS THEY STRIKE YOU.

54. There are different MODES OF ILLUMINATING STRUCTURES, and various apparatus and contrivances have been employed. The ordinary light produced by the mirrors, or these and the Lieberkuhn, as modified by stops, diaphragms, the dark chamber, etc., which have been, I think, sufficiently noticed, are enough for all the purposes of the Medical man. If an artificial light be used, camphine, oil, or any steady, brilliant light, *with a glass shade or chimney* to keep off draughts, is sufficient. For illuminating objects the plant (15) of your instrument should be selected with three ideas in view—*convenience, light, steadiness;* hence it is, that the same position may not offer all these circumstances both for day and night examinations.

55. STAGE MOVEMENTS.—For producing any alteration in the position of the object under investigation, you must move it in the opposite direction to the one you want. The reason is, of course, that the position of all objects is inverted by the action of the lenses (26). The two thumbs or the two forefingers are sufficient for all the purposes of the Medical man, if he will follow caution 2, section 53. After a very little practice, he will not have to complain of any jerking or jarring. It is inattention to this caution, in my opinion, which has made the complicated stage adjustments necessary to Medical men; but, if he must have a movable stage, I think Pillischer's elliptical stage (a) is the best and cheapest.

56. The COMMON SOURCES OF FALLACY in microscopic examinations arise from one or more of three sets of causes:

1st. Causes originating with the observer.
2nd. Causes originating with the object.
3rd. Causes originating with the instrument;

And, I think, in the order of frequency I have mentioned:—

1st. The observer, from not making himself comfortable, gets congestion of the eye, and sees little things moving in all directions; or his eye-lashes are reflected from the ocular as from a mirror, because he looks *upon* it, instead of *through* it; or he has not got the focus; or has forgotten to arrange the light. It may be he has not put on the objective glass, or even the object itself; or he has not adjusted the magnifiers to the size of the object; or is using the oblique movement without an over-glass; or the over-glass is too thick.

2nd. The object is too large, or too thick, or *unequally* cut, or greasy, or has too much fluid matter on it, or would be better seen without an over-glass, or is exhaling moisture, or has dried up since you began the examination, or disappeared from the action of some re-agent.

3rd. The errors arising from instruments are chiefly those affecting the cleanliness of the glasses. It may be, however, that the smooth adjustment throws the objective out of the concentric axis of the compound body, and thus renders an alteration in the position of the object necessary for the adjustment of the focus.

57. *What microscope would you advise me to buy?*

Allow me to ask you how much money you have to spend, and this will answer the question. I do not believe that either Ross, Powell, Pillischer, or Smith and Beck *could be induced* to sell you an instrument which would not answer

(a) Taken from an actual case.

(a) I am informed by Mr. Pillischer, that this stage was invented by Mr. Toomes.

your purpose.(a) As for the continental microscopes, Oberhaüser and Nachet's are quite enough for the purposes of the medical man. They may be brought over here for about six pounds; and Nachet's, at that price, is one of the most beautiful instruments I ever saw. It is, at the same time, the *basis* of a perfect instrument, capable of receiving every common piece of accessory apparatus.

I have occasionally referred in these lectures to addenda and supplementary notices of certain important points. These will appear at the end of the course, with such other matters as may be suggested to me by the inquiries of the various readers of these lectures, whose difficulties will doubtless suggest many points of improvement in the treatment of this subject, as it is my ambition to make them as *practical* as possible; though it must be borne in mind, that no written description can form a perfect substitute for *viva voce* instruction.

The following list of microscope-makers and specimen-preparers may be useful to gentlemen interested in the study of histological anatomy:—

MICROSCOPE-MAKERS, ETC.

Ady, Princes-street, Edinburgh.
Dancer, 13, Cross-street, Manchester.
Oberhauser, Place Dauphine, Paris.
Nachet, optician, Paris.
Pillischer, 398, Oxford-street.
Powell and Lealand, New-road, London.
Ross, 2, Featherstone-buildings, Holborn.
Smith & Beck, 6, Coleman-street, London.

SPECIMEN-PREPARERS, ETC.

Hett, 24, Bridge-street, Southwark.
Noaman, 10, Fountain-place, City-road.
Topping, Winchester-street, Pentonville.

Specimens may generally be obtained also from the various opticians, as also manipulating instruments, and various apparatus.

ORIGINAL COMMUNICATIONS.

CASES, WITH REMARKS.

By C. J. B. ALDIS, M.D., F.R.C.P.
Lecturer on Medicine at the Hunterian School.

Case 1.—OBESITY, WITH STRICTURE OF THE COLON.

Mr. Firth, apothecary of the Western Dispensary, requested me to attend a *post-mortem* examination of Sarah D., aged 69, residing at the Chapel-house, Little Chapel-street, Westminster, on Dec. 2, 1852. The dissection was performed at the express wish of two surviving sisters, who said that the deceased had suffered for a long period from pain in the left side, with a suffocating sensation, and imagined that a tumour existed "which moved." The body externally did not appear to be very fat; the feet were distorted inwardly, which, with increasing infirmity, had prevented her from leaving her room for six years, excepting to go into the yard. A large quantity of fat was observed on making an incision into the integuments of the chest and abdomen. The vessels and right ventricle of the heart were covered with fat, projecting, an inch in thickness, beyond the apex. A great portion of the left ventricle was similarly coated with fat. The heart itself was small and flabby; valves healthy. On raising the left lung, the diaphragm was elevated by a round substance of the shape and size of a cricket-ball encroaching upon the lung. Indeed, each thoracic cavity was diminished by the abdominal distension, partly arising from tympanitis, and partly from obesity. The roundish substance, above alluded to, was found to consist of a mass of condensed fat attached to the lesser curvature of the stomach. The omentum was unusually fat; the posterior abdominal walls were also densely lined with the same substance; the intestines also being thickly fringed with it. No effusion. On examining the intestines, the left extremity of the transverse colon was seen to be so much contracted, as to admit the little finger with difficulty, and of a gristly character, resembling scirrhus, an inch in length. The intestines otherwise were perfectly healthy, and there was no accumulation of fæces above the stricture. The morbid specimen was exhibited at the last meeting of the Western Medical Society.

Remarks.—Had a careless examination of the above case been made, the strictured portion of intestine being so small, and surrounded with fat, might easily have been overlooked, and the cause of death solely attributed to obesity. It is singular that fatal constipation was not produced, when we take into consideration the very small aperture in the colon through which the fæces must have passed for a considerable time, and which no doubt occasioned the long-continued pain in the side. The patient's idea of the "movable tumour" appeared to have been suggested by the large round mass of fat in contact with the diaphragm, and subject to its movements.

Case 2.—EPILEPTIC FITS.—CHRONIC BRONCHITIS.—ADHERENT PERICARDIUM.—ICTERUS.

James G., aged 52, residing at 2, North-street, East-lane, Walworth, was admitted, under my care, at the Surrey Dispensary, Oct. 21, 1852. Pain in the head; epileptic fits, twenty-three years; rheumatic fever fifteen years ago, when he was attended, at the same Dispensary, by Dr. Whiting; no murmur in the region of the heart, and no preternatural impulse; cough with dyspnœa. In December he had an attack of jaundice.

Dec. 28.—Had passed about a pint of blood; no hæmorrhoids. He sank very slowly, and died on Jan. 11, 1853.

Post-mortem Twenty-four Hours after Death; performed by Mr. Hills, in the presence of Dr. Wilks.—No dropsy; body thin; skull very thick and heavy; dura mater very adherent at vertex, the whole membrane being opaque and thickened; much effusion beneath it on the surface of the brain, the structure of which was apparently healthy; no spiculæ of bone. Lungs filled the chest from adhesion; the left thorax contained a few ounces of yellow serum. Bronchial tubes thickened from old bronchitis. Tissue of the lung healthy. In front the pleura was adherent to the pericardium. Pericardium universally adherent to the heart, from which it cannot be separated without some force. Heart very large; right ventricle enlarged and hypertrophied; the auricle particularly so. Tricuspids and pulmonary valves tolerably healthy. Left ventricle hypertrophied, but more dilated, containing a large quantity of black clots. Mitral valve much thickened and contracted, admitting only the points of two fingers. Aortic valves thick, rigid, and bony. Liver small, nutmeg. No impediment discovered in the bile-ducts. No enlargement or hardening of pancreas and neighbouring glands. Kidneys small, red, contracted, hard, and irregular—Bright's kidney. No evidence of ulceration of the large intestine, which was ecchymosed, as if some inordinate action had been going on.

Remarks.—Notwithstanding the ossified and thickened state of the aortic and mitral valves in the above case no bruit was audible, and although the heart was much hypertrophied and dilated no morbid expulsive action could be detected. The universally adherent pericardium, which also adhered to the pleura pulmonalis, may, in some measure, account for the absence of the usual symptoms indicating these lesions. But one of the most remarkable facts was the deficiency of dropsy during a period of fourteen years, although not only the heart, but the liver and kidneys, were so much diseased. While the patient was under my care, a very slight swelling of the lower extremities occurred, but it soon disappeared. The wife told me that Dr. Whiting said there was disease of the heart in connexion with the attack of rheumatic fever fourteen years previously. It is, therefore, reasonable to assume that the pericardium became adherent at that period.

I, Chester-terrace, Chester-square.

(a) Unless you have a friend on whose judgment you can perfectly rely, take the advice of one of these artists in purchasing your glasses, *and do not mistake magnifying for defining power.*

REMARKS ON THE TREATMENT OF DIARRHŒA BY SULPHURIC ACID.

By S. W. NORTH, M.R.C.S., L.A.C.
District Medical Officer to the York Union.

During the past two or three years diarrhœa has prevailed to a much greater extent than usual, and consequently much labour has been bestowed in the investigation of this disease, and various new methods of treatment have been suggested, amongst which none has attracted so much attention as that by sulphuric acid; and seldom has any single remedy gained so deserving a reputation in so short a time. Nevertheless, in the hands of many this remedy has failed in its results to realise anything like the advantages it was said to possess over other methods of treatment in use for the relief of this affection. This, I think, is mainly owing to a want of discrimination in the choice of cases suitable for its use, for it is too much the custom to treat diarrhœa on a routine plan, without reflecting that similar symptoms may, and often do, spring from widely different causes, and are to be combated by as different treatment.

When diarrhœa prevails extensively, as it did during the summer and autumn of last year, we may clearly recognise two forms of this affection, somewhat similar in their symptoms, but differing materially in their origin, and requiring distinct methods of treatment.

The one, simple diarrhœa, caused mainly by the kind of food abundant at this season, and generally to be attributed either to errors of diet, or some temporary derangement of the biliary system, and the symptoms of which are copious and frequent fæculent evacuation, slight nausea, griping, and tenesmus; the disease frequently being cured spontaneously in the course of a day or two, with no other ill effects than temporary debility, and seldom requiring any other treatment than mild oleaginous purgatives, and sometimes a few doses of chalk mixture and opium.

The other form is the one most deserving of attention, as well from the severity of its symptoms as the tendency which it has to lapse into low fever. The following is the usual history of the case:—The patient was either quite well a few hours before, or perhaps had suffered from slight relaxation of the bowels for a day or two, when, without having committed any errors or irregularities in living, he was seized with profuse diarrhœa, the evacuations consisting at first of the contents of the bowels in a very fluid state, ultimately becoming like dirty water, and containing little if any solid matter; nausea and vomiting of large quantities of fluid; severe spasmodic pain in the stomach and bowels; cramps in the extremities, often very violent; the pulse small and frequent; tongue moist, and either clean or only slightly covered with a brownish fur; the surface cold and clammy; countenance anxious; these symptoms being followed by a continued fever, varying in duration from a few days to a week or two. Such is the general character of this form of the affection, presenting itself with various degrees of severity, from apparently simple diarrhœa, to an extent almost bordering on that of Asiatic cholera.

The symptoms most worthy of note, and which seem to me to be sufficient reason for distinguishing this from the preceding form of diarrhœa, are the peculiarly fluid evacuations, the severe cramps in the extremities, and, above all, the consecutive fever. Add to this, that the cases which have fallen under my observation were most numerous in ill-drained and badly-ventilated localities, where we might expect to find epidemic disease most abundant; that numerous cases occurred in the same locality; and I think we may fairly ask ourselves whether this is not a distinct disease of an epidemic character, the therapeutical indications of which may more appropriately be classed with those of Asiatic cholera and typhus.

It is in diarrhœa having this character that I found the sulphuric acid a most valuable remedy, frequently in a few hours restoring the patient from a condition of extreme distress to one of comparative comfort.

I usually administered the dilute acid in doses of half a drachm, with a drachm of compound tincture of cardamoms, in an ounce of water, at intervals of from one to three hours, according to the urgency of the case; the almost immediate effect of which was, cessation of the vomiting and purging, the surface becoming warm, and the countenance losing its anxious appearance, the cramps in the extremities gradually abating. Six or eight doses generally sufficed to arrest all the urgent symptoms, and, in most instances, the patient was convalescent in two or three days. In similar cases, treated by the ordinary stimulants and astringents, the nausea and diarrhœa often continued for several days, the tongue becoming loaded with a thick brown fur, severe headache, thirst, and other febrile symptoms; the stomach and bowels not recovering their healthy function for many days; or, what was not unfrequent, the diarrhœa assuming a dysenteric character.

The advantages of the acid over other methods of treatment seem to me to be, that it is more grateful to the patient; that it relieves him of all the urgent symptoms more speedily, and that the stomach and bowels assume their healthy functions in a much shorter time than under any other plan of treatment: and, lastly, that this remedy is not expensive—circumstances of no small advantage when we have to treat large numbers of the labouring class; for to them the question as to whether they are to be able to resume their work in a few days, or not for two or three weeks, is not a mere question of bodily suffering and inconvenience, but one to many of comfort or want to themselves and families.

How this medicine acts I leave to others and to future observation to determine. Of its value as a remedial agent in this class of affections, I have no doubt. One caution I would add, viz., that, when a few doses fail to relieve the patient, it is better not to persevere; for a long continuance of the acid, in large doses, is of itself sufficient to set up a troublesome and unmanageable irritation of the mucous membranes of the stomach and bowels. If it is to act satisfactorily will be shown by the result of a few doses.

THE LONDON PRACTICE OF MEDICINE AND SURGERY.

GUY'S HOSPITAL.

CASE ILLUSTRATIVE OF THE CONVERSIÓN OF A SEBACEOUS TUMOUR INTO A SOLID MASS.

[Under the care of Mr. COCK.]

All facts tending to facilitate the differental diagnosis of malignant and innocent tumours are so important, that we shall make no apology for introducing the following case:—In a very instructive Essay, published in the last vol. of the "Guy's Hospital Reports," Mr. Cock has brought forward a series of examples of the solidification of the interior of sebaceous tumours when seated on the scalp and other parts. As is well known, these tumours, of which the common wen is an instance, generally contain a more or less thickened sebaceous secretion. Mr. Cock has, however, directed attention to the fact, that without assuming any character of malignancy, they are liable to have produced within them a solid structure, by which the cheesy sebaceous substance is, to a greater or less extent, displaced. When this change has taken place, they are prone to ulcerate on the surface, after which a troublesome sore forms, which very rarely heals, and often exhibits appearances, which, to the inexperienced eye, are extremely like those of cancer. The only efficient mode of treatment is extirpation either by means of the knife or caustic, of which the former is much the preferable one. A prognosis of the most favourable nature may, however, be given, for they are perfectly innocent, and do not return after excision. The following case completely bears out Mr. Cock's views, and, indeed, in the extent to which the process of solidification had gone, it surpasses what had occurred in any of those which he has recorded:—Ann Hughes, a stout and plethoric woman, aged 48, was admitted on December 1, 1852. On the left side and vertex of her head were several tumours, varying in size from a large marble to a small orange; they were attached to the skin, but movable on the bone, and, with the exception of the larger one, which was unusually firm and hard, they presented no characters which distinguished them from the ordinary sebaceous tumours of that part. The skin, in several parts over the surface of the larger one, was extremely thin, and appeared to be on the point of ulcerating. She stated that it had been seven years growing, and that the others had appeared much more recently. They had given her no pain, excepting when pressed on; but from their increasing bulk had latterly become very inconvenient. A few days after her admission, Mr. Cock removed the greater part of them; for the smaller ones it was sufficient to cut them across; and, having emptied them of their soft,

cheese-like contents, to dissect out the walls of the cyst. The skin over the larger one was, however, so much diseased that it was necessary to remove it by means of an elliptical incision around its base. The section after removal exhibited a very remarkable condition. No trace of cavity, nor any remains of the sebaceous contents usually found, were apparent. It was solid, of a greyish-white colour in parts, and very vascular in others, being evidently composed of an organised structure. In the other tumours, no approach to this state of things was apparent. They were composed of a tough leathery wall, inclosing a half solid sebaceous secretion, and their internal surface was smooth, and free from any kind of growth into the interior. Mr. Cock expressed a confident opinion respecting the sarcomatous one, that it was of an innocent nature; and he grounded his opinion on the facts, that it closely resembled others which he had seen; that it was associated with the common form of follicular disease; and that it had not manifested any tendency to attach itself to the neighbouring parts, having been quite loose and movable on the skull.

The woman made a favourable recovery, and was discharged after the lapse of a few weeks.

It would be very interesting to know exactly by what process this tumour had become solid. In all probability, it was by a kind of intra-cystic growth of lobules which had coalesced into one mass, as the original contents were slowly removed by absorption. The consolidation was, however, too complete to allow any evidence of this mode of origin to remain apparent. The co-existence of the solid tumour with examples of the common cyst appears to be strongly in favour of the supposition, that the former had been by some means developed from the latter, as was inferred by Mr. Cock to have been the case in some instances in which the solid form alone was found. We are not aware whether any observation has been made as to the hereditary occurrence of wens, but it is worthy of note in the present case, that the father, a brother, and a sister of the patient, have each of them suffered from the same disease.

ST. THOMAS'S HOSPITAL.

REMOVAL OF A SOLID TUMOUR FROM THE NECK, POSSESSING PECULIAR CHARACTERS.

[Under the care of Mr. SIMON.]

On Saturday, Jan. 23, Mr. Simon excised, from the neck of a remarkably robust-looking young Irishwoman, a very peculiar tumour, respecting which we do not feel certain that it might not have had a somewhat similar origin to that of which we have just spoken. Before the operation, Mr. Simon stated, that his reasons for resorting to that measure were, not that he believed the disease malignant, but because it was increasing in size, and becoming inconvenient. It was as large as a small orange, and situated subcutaneously in the right neck, a little below the border of the jaw. To the touch it was very firm, and could be readily moved about, being attached neither to the skin nor deep parts. The history given was, that it had commenced seven years previously as a small subcutaneous induration, and had very slowly increased in size. It had occasioned very little pain, and none at all until quite lately.

Mr Simon commenced by making a semilunar incision, the base of which was parallel with the border of the jaw. On dissecting the flap upwards the tumour was exposed, and being seized and held forwards by means of a vulsellum, it was then quickly dissected out. A very profuse hæmorrhage took place, but was soon controlled by the ligature of several vessels, after which the parts were brought into apposition by sutures and plaster. The healing of the wound has since advanced favourably.

Examination of the Tumour.—It was surrounded by a thin adherent capsule, and exhibited obscure indications of division into three large lobes. Its section was firm and almost crunching, the cut surface smooth, and neither concave nor convex; of a white colour, interspersed with spots of light yellow and of greyish semi-transparent substance. It yielded no juice, nor showed any fibrous bands. Under the microscope, it appeared to consist of a solid blastema, of a small quantity of delicate fibro-cellular tissue, and of numerous nucleated cells about the size of small pus corpuscles, mostly round, but occasionally of an elongated form. Mr. Simon remarked, that it was impossible to assert conclusively that it was not of a malignant nature; from the history and general appearances, however, he did not believe it to be so, and had no expectation that it would return. He supposed that it must be classed, for convenience' sake, with those tumours to which, for want of a better, the ill-understood term of sarcomatous growths has been applied.

ST. BARTHOLOMEW'S HOSPITAL.

REMOVAL OF AN EXOSTOSIS OF THE FEMUR.

On Saturday last Mr. Lawrence excised an exostosis the size of a large hen's egg, from above the inner condyle of the femur, in a lad aged 14, who had only known of its existence for four months. Previous to the operation its base appeared to be large, and to extend to very near the knee-joint, and also round the bone towards the course of the femoral artery. As the result of his experience, Mr. Lawrence stated, that these growths almost always were connected to the shaft by a constricted neck, and generally grew downwards rather than upwards. He therefore inferred, that in the present instance the operation would not be attended with either the difficulty or the danger which manipulation of the growth might lead one to anticipate. The event proved the correctness of his conclusion. The integument and vastus internus having been divided, the nodulated growth was exposed, the soft parts easily separated, and a very short but narrow pedicle brought into view, which the bone forceps readily divided. A section of the mass showed that its surface was covered to the thickness of nearly half an inch by greyish glistening cartilage, thus disproving, were any disproof needed, the assertion, that these growths develope into bone from a fibrous tissue. After the operation, Mr. Lawrence remarked on the frequency with which exostoses were formed in the situation of the present one, by far their most common seat. He compared their structure, which was that of ordinary cancellous bone, surrounded by a shell of denser structure, with the very hard and ivory-like growths from the cranium, adding, that so extreme was often the hardness of the latter, that he had sometimes failed in being able to cut away the whole, and much preferred, under ordinary circumstances, to let them alone. With exostoses in other positions the rule was different; they should be removed as early as possible.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST.

PHTHISIS.—SUDDEN DEATH FROM HÆMOPTYSIS.—AUTOPSY.

[Under the care of Dr. PEACOCK.]

In one of Dr. Graves's clinical lectures, referring to the diagnosis of hæmoptysis, we find the following remarks:—"What is the result of sanguineous effusion from the branches of the pulmonary artery? In the first place, the blood is black, as you can perceive when it is spit up. It is also clear, that if this blood be detained in the air-cells and bronchial tubes, it will become coagulated, and be spit up in clots. Many of the worst cases of spitting of blood are attended with this symptom; and it is a mistake to suppose, as you see it stated in books, that blood expectorated from the lungs should always be florid and frothy. You are told gravely that you can distinguish blood discharged from the stomach from that which is discharged from the lungs by the difference in its colour and consistence, and by the presence or absence of air bubbles. No, gentlemen, you cannot. If you see blood spit up which is dark and coagulated, and from stethoscopic examination have reason to think that it comes from the lungs, you will be convinced that the effusion is from the pulmonary artery. I do not mean to say, that when the blood comes from the pulmonary artery it is always black and clotted; but I assert that it is so in the great majority of cases."

John Thompson, aged 40, was admitted as an out-patient, under Dr. Peacock's care, about six weeks ago, on account of cough and loss of strength, attended with some emaciation. These symptoms had been present for several months, but had never obliged him to give up his ordinary work as a smith. He was still tolerably stout, and did not suffer much from dyspnœa. Percussion elicited a naturally clear note from all parts of the chest, and auscultation revealed no deviation from what was normal, excepting about the root of the lungs posteriorly where some rhonchus was present. He had never spit blood.

On the 22nd of January he stated, that he had on the previous day raised, within the space of a few minutes, nearly a teacupful of dark coloured blood mixed with some clots. The attack had not been preceded by any premonitory symptoms, and it had now completely subsided. No material change was made in the treatment which had been pursued, and which consisted in the exhibition of tonics and mild pectoral sedatives. He was ordered to keep himself very quiet, and to abstain as much as possible from using the voice. During the succeeding fortnight no recurrence of the expectoration of blood took place. He returned to his work, and

appeared to be improving in health. About the end of that period, however, he one night suddenly aroused his wife by the exclamation, "The blood again!" She found it spouting from his mouth in a most profuse manner. After a short time it diminished in quantity, but still continued to flow; and, after about five minutes spent in an agony of suffocative dyspnœa, he sank back dead. The quantity of blood lost was very large, but could not be measured; it was of a dark purple colour.

On the following day, a *post-mortem* examination was made. The thorax being opened, the lungs did not collapse at all, being remarkably distended and crepitant. There were a few pleural adhesions on each side; and large portions of the free edges of the lobes were in a state of emphysema. In the right lung no tubercle could be found, but in the middle of the left were two masses of it, about the size of horsebeans, and, not far from them, was a little lump of very hard, chalky concretion. The middle of the lung, around the first divisions of the bronchial tubes, was felt on handling it to be much consolidated, and, on cutting it across, a cavity capable of containing a walnut was laid open. Its roof and walls were composed of diseased lung tissue, free from any kind of false membrane; but its floor was constituted of a layer of tuberculous deposition, immediately beneath which ran a very large branch of the pulmonary artery. In the coats of the latter was a rent, the eighth of an inch long, and having ragged margins. The cavity, as well as the bronchial tubes of both sides the chest, contained much coagulated blood. Several of the bronchial glands were enlarged and tuberculous. The heart was apparently healthy, nor could any disease be detected in the abdominal viscera.

We have adduced this case as an illustration of hæmoptysis of dark-coloured blood, a circumstance the occasional occurrence of which is, we believe, omitted to be mentioned by some of our best systematic writers. Apart from this, however, the case presents several features of interest. It is not very common to be able to find after death the precise vessel from which the effusion had taken place. The limitation of tubercular disease to the middle lobes of the lung, the apices being quite free, and also the co-existence of phthisis with emphysema, are pathological phenomena of not very frequent occurrence.

LIST OF SCIENTIFIC MEETINGS.

This Evening, Feb. 12.—Royal Institution.—*Subject:*—"On the Philosophy of Chemistry." By Professor A. Williamson. Three o'Clock.

—— —— Medical Society of London.—*Subject:*—"On a Mode of Treating Chronic Affections of the Chest by Injection." By Dr. Downing. Eight o'Clock.

Monday, February 14.—Royal Institution.—*Subject:*—"On Organic Chemistry." By Dr. A. W. Hofmann. Four o'Clock.

Tuesday, February 15.—Royal Institution.—*Subject:*—"On Animal Physiology." By T. Wharton Jones, Esq., F.R.S. Three o'Clock.

—— —— Pathological Society of London. *Meeting of Council.* Seven o'Clock.

Wednesday, February 16.—Royal Institution.—*Subject:*—"On Organic Chemistry." By Dr. A. W. Hofmann. Four o'Clock.

Thursday, February 17.—Royal Institution.—*Subject:*—"On the General Principles of Geology." By J. Phillips, Esq. Three o'Clock.

—— —— Harveian Society. Eight o'Clock.

Friday, February 18.—Royal Institution.—*Subject:*—"On the Charge of Refrangibility of Light, and the Exhibition thereby of the Chemical Rays." By Professor G. G. Stokes. Half-past Eight o'Clock.

—— —— Western Medical and Surgical Society.—*Subject:*—"On Spinal Irritation." By Dr. Murphy. Eight o'Clock.

Saturday, February 19.—Royal Institution.—*Subject:*—"On the Philosophy of Chemistry." By Alexander W. Williamson, Ph. D. Three o'Clock.

—— —— Medical Society of London. Eight o'Clock.

Middlesex Hospital.—At the General Quarterly Court, held on the 8th inst., it was determined by the Governors to appoint a second assistant-physician to the hospital. The election will take place on the 10th of next March.

Medical Benevolent College.—We recently announced that the Lord Bishop of Oxford had kindly consented to preach in Vere-street Chapel, in aid of the funds of the College. We have now the satisfaction to add, that the Lord Bishop of London has also generously promised to preach in Trinity Church, St. Marylebone, in furtherance of that desirable object.

Medical Times & Gazette.

SATURDAY, FEBRUARY 12.

THE GENERAL PRACTITIONERS AND THE PROPOSED NEW MEDICAL REFORM BILL.

We are extremely gratified to find that our views, expressed from time to time, upon the merits of the New Medical Reform Bill proposed by the Provincial Medical and Surgical Association, are in accordance with those entertained by a great mass of our professional brethren; and the invitation offered to us by our Correspondents to continue the subject, together with its own intrinsic importance, induce us to resume its consideration while the circumstances are still fresh in the minds of our readers.

We may mention, in the first place, that we have no objection whatever to the assumption of the very difficult task of constructing a new Medical Reform Bill by the highly-respectable and numerous body of gentlemen composing the Provincial Medical and Surgical Association. We rejoice that such a measure should emanate from such a source, rather than from the Colleges or Universities; for the latter may not unreasonably be supposed to be open to the influence of class-interests, while the members of a large voluntary Association can, on the other hand, be actuated by no other motive than a desire for the public good. But it is incumbent on us to warn our readers of their danger, if the movement undertaken by such a body should be a retrograde, instead of an onward one, and if its obvious tendency should be to sacrifice those very principles which the Association is bound to defend.

It may, perhaps, be expected of us, that, while we take the liberty of criticising and condemning measures proposed by others, we should be prepared to offer some suggestions of our own; and we at once respond to the call made to us by some of our Correspondents, and lay before our readers our own confession of faith in those broad principles which we conceive should prevail in all regulations affecting the General Practitioners of this country.

Our views upon this subject, then, are latitudinarian; inasmuch as we contend, that the General Practitioners have now emancipated themselves, by their own talents and respectability, from the trammels of collegiate and corporate authority, and that they are, therefore, competent to exercise an influence over their own affairs. The history of the General Practitioners commences with the present century, at the opening of which we find them struggling with honourable and united efforts to obtain for themselves an independent position in society; by these exertions the Act of 1815 was obtained, and has since been the law of the land; and, however opinions may differ as to certain provisions of that Act, there can be no doubt that it has entirely changed the aspect of medical affairs. The apothecary no longer exists, except in name, and his place has been supplied by the highly-educated practitioner, who is competent to undertake the treatment of all the complicated diseases which afflict humanity. This class of the Profession now extends throughout the length and breadth of the land; and although in the Metropolis and the great towns the suffering sick have the advantage of consulting with men eminent in various branches of the healing art, yet, in the small towns and villages, the General Practitioner is entrusted with the treatment of all kinds of disease;

nor is the confidence thus reposed in his skill unjustly bestowed or frequently abused. While, therefore, we cheerfully accord a high meed of praise to those who, in our great hospitals, are diligently exploring the specialities of disease, or who, in the retirement of their homes, are investigating the literature of our Profession, we never will cease to advocate the claims of those who, night and day, are toiling in the routine of general practice, and who, at the sacrifice of their own lives, their health, and their comfort, are daily and hourly conferring inestimable benefits on the community.

We consider that the Act of 1815 has done much good, and that it is doing good still; but that the progress of events, and the spread of medical knowledge, have rendered it necessary either to modify that Act very extensively, or to procure the passing of another which shall be more in accordance with the spirit of the age. The great defects of the Act, in our opinion, are, that it confines to a small class of the Profession, duties and privileges which should be open to all; that it makes no provision for a liberal medical education; that it provides no effectual and summary punishment for illegal practice; and, what is worst of all, that it gives to the Profession generally no voice in the management of their own affairs. Another defect very commonly attributed to the act is the clause requiring a compulsory apprenticeship; but we confess that, after a very mature consideration of the whole question, and a very extensive observation of its present bearings, we do not attach so much weight to this objection as some of our professional brethren are inclined to do. If the apprenticeship were really a state of servitude, and if five years of a young man's life were really devoted, or if it were required that they should be devoted, to making up medicines behind a counter, we should denounce such a system with as much energy as we are capable of exerting; but when we know perfectly well, that, practically speaking, only two years are actually devoted to apprenticeship, and the other three are spent in attendance on lectures and hospital practice, we really cannot see the extreme hardship of the system. After the perusal of the letter of Mr. Upton, published in our last Number, it is quite evident that even an indenture of apprenticeship is not absolutely necessary, and that the spirit of the act merely requires that there should substantially exist a relation of teacher and pupil between a senior and a junior of the Profession. We candidly confess that in any new Bill proposed for the regulation of medical affairs, we should hope that some such relationship should be insisted upon, or that, at least, something equivalent or superior should be substituted in its stead. We do not wish to retain either the name or the fact of an actual apprenticeship; but we strongly insist upon the propriety, and even the necessity, of young students learning the elements of their Profession from a practitioner of medicine, and of being guided by him in their studies. We also consider that five years of study is quite little enough to enable the student to acquire a competent knowledge of the various branches of medical science, unless he shall have previously graduated in arts at a university, when his mind would be in such a state of discipline, that four years might perhaps be sufficient.

We propose, then, that the new constitution of the General Practitioners of England should be based upon the principle of universal suffrage; that all the duly-qualified members of the Profession should have a vote; that the Council should be selected from the body of the General Practitioners, and that the Examiners and other officers should be selected by the Council. Such are the broad principles which we advocate in the selection of the governing body of the new Medical Republic.

With regard to the educational course to be pursued in future, so much good has already been achieved in this direction that our only fear is of losing ground. Upon one point we should positively and emphatically insist, namely, to admit no one to the study or the practice of the Medical Profession without his giving evidence, *by examination*, of having received a good preliminary education. Republican as our ideas on medicine undoubtedly are, we desire a republic, not of mere numbers, but of intellect; and we conceive that any plan which omits inquiry into the preliminary education of a medical man is practically worthless. Schools for the liberal education of youth exist in abundance; and there is no excuse whatever for allowing an illiterate person to embrace the study of medicine, when the very proper regulations of all our public bodies now preclude him, without preliminary knowledge, from entering upon any other gentlemanly calling.

We have purposely refrained, in this article, from any allusion to the Royal College of Physicians and the Royal College of Surgeons; and our abstinence from remark arises from no feeling of disrespect towards those illustrious bodies, but merely from the conviction, that they are themselves unwilling to take any part in the settlement of the affairs of the General Practitioners. We could indeed hope that the Profession might consist of only two classes: the physicians, who should belong to the Royal College of Physicians, and the surgeons, to the Royal College of Surgeons; but time and experience have proved that such a hope is vain, and that neither of the Colleges desire any such classification. We are compelled, therefore, to take things as they are; and, as custom and the etiquette of the Colleges make a distinction of the Profession into three classes instead of two, we have no wish to disturb such an arrangement, which, we further admit, works well for the Public and for the Profession. Upon all fitting occasions, therefore, we shall defend the privileges of the two Colleges, comprising, as they do, the names of both dead and living members, whose genius and acquirements have made British Medicine and Surgery conspicuous and illustrious over the whole surface of the globe. But we shall be equally ready to defend the rights and privileges of that numerous class in our Profession, whose lives are spent in incessant and often unrequited toil, and whose useful labours, although more limited in their sphere, justly entitle them to the advocacy of the Medical Press and to the lasting gratitude of the Public.

DR. MARSHALL HALL.

In the last Number of this Journal, we drew the attention of our readers to a circular which had been then recently issued by Dr. Marshall Hall, advertising Dr. Russell Reynolds as his successor in practice. To the charge which we then preferred but one reply could, in our estimation, be given, which would exonerate Dr. Marshall Hall from blame,—namely, an answer to the effect, that the circular in question was a forgery, and that we had been imposed upon. It is, however, much to be regretted that no denial can be made as to the authenticity of the extraordinary document which we copied into our pages; and, in further consideration of the subject, we now direct attention to a letter which we have just received from Dr. Marshall Hall in vindication of his conduct. Let us see, then, how far he succeeds in excul-

pating himself, allowing ourselves first to say how much we lament the cause of Dr. Hall's retirement—ill health; and how much more this fact increases our regret that he has not seceded in that dignified manner which would only have been becoming in a physician of his eminence. To avoid any misunderstanding, also, let us state explicitly, that we fully acknowledge the benefits which this gentleman has rendered to science, and willingly allow that he has earned for himself the high position which he holds in the Medical Profession. All that we mean to assert is, that he has not earned this position for Dr. Reynolds, and that Dr. Reynolds has not yet earned it for himself.

Now, it is, in our opinion, this very circumstance—the high standing of Dr. Marshall Hall, which renders his conduct the more inexcusable. If his position be a high one, it must be remembered that it has its duties—its obligations no less than its privileges; and one of its duties, and not the least important one either, is to set a high-toned example to those who are fairly and honourably struggling for similar eminence. Has Dr. Marshall Hall set this example? Has he not done that, without temptation, which we trust none of his brother physicians, however tempted, would do? Dr. Hall denies that the printed paper which has in some measure given rise to these remarks is a circular. He says, "it is a repeated calumny to call it a 'circular.'" Is it so? Pray, Dr. Hall, if we may venture to interrogate you, can you explain what a circular consists of, if your printed "extract of a letter" is not one? What does Webster, the most recent of lexicographers, give as the meaning of this word? In this gentleman's dictionary we find,—"Circular. Addressed to a circle, or to a number of persons having a common interest; as a *circular* letter." Was not your extract, then, addressed to a number of persons? Of course it was, though, with a total disregard of logic, and as if you ignored the existence of common sense in those to whom you write, you say in one line, that "a few copies only were printed;" and, in the next, that "it was intended to be shown *or sent to any one*, in reply to questions, and to save time." We shall be told next, that it was printed solely for the amusement of Dr. Reynolds, merely, perhaps, to fill his waste-paper basket, or to impress thoroughly upon his mind the extent of his own genius and talent. But, if we feel indignant at this part of Dr. Hall's letter, what can we think, what will the Profession think, of the following? "I take much of what you say, doubtless in irony, in sober earnest. I am perfectly satisfied that *few* of the Members or Fellows of our Profession are prepared to carry out this most important inquiry." Now, fully to understand this paragraph, we must quote our ironical passage, (and we beg to assure Dr. Hall it was certainly written in irony,) which ran thus:—"It" (the circular) "certainly does not assert, in so many words, that Dr. Reynolds is superior to all the physicians of the day, and that Dr. Marshall Hall is superior to Dr. Reynolds; but the whole tone of the letter is very like it." This is what Dr. Hall takes in sober earnest! We have no hesitation in saying, that such an insult was never before offered to our body, and, in answer to it, we can only deny most positively that Dr. Hall is, or ever was, the first physician of the day, or that he is so regarded by the public. Whether Dr. Reynolds be so or not, it is unnecessary to say after what we have already stated. Again, the sarcastic remarks upon the College of Physicians, are puerile to a degree. Had they proceeded, even from the pen of Dr. Reynolds, who knows nothing of the College, we should have wondered; but we are greatly surprised that Dr. Hall should so far forget himself as to insinuate that the body of gentlemen belonging to this Institution could wish him to do anything that would be derogatory to a man of honour. When an individual, however, does not hesitate to be ungracious to, and unmindful of, his Profession, he will not, in all probability, show much respect for his alma mater; but it is only right to challenge Marshall Hall to justify this part of his letter. For the rest of this epistle, we leave it to the consideration of our readers; merely hoping, that, "in the far West and in the far East," not only may Dr. Hall's bodily health be restored, but that he may also become habituated to a more generous and wholesome tone of thought. If such prove the case, we shall be the first to welcome him back.

LONDON FEVER HOSPITAL.

It is with great regret we learn, that an attempt has been made to remove from the Presidency of this Institution the Earl of Devon, a nobleman to whom the hospital is under the deepest obligations, for services extending over a period of ten or twelve years. The object, of course, is to introduce some other influential personage, the reasons for which we should be reluctant to name. But, should the course be persevered in, it will demand a full and complete investigation; and it shall receive it at our hands. We have, however, great reliance on the high character and honourable feelings of the general body of Governors.

DRUGS,

THEIR

IMPURITIES AND ADULTERATIONS.

PREPARATIONS OF MERCURY.

As mercury, in one or other of its forms and combinations, is one of the most important among our remedial agents, it appeared to be incumbent on us to make the pharmaceutical preparations of this metal a subject of our earliest investigations, the results of which we are now about to lay before our readers. As we stated in our first paper, it is not so much our object to discover falsifications of pharmaceutical preparations, as to assure the Profession and the public of the amount of dependence to be placed on these agents; and we shall be more gratified to find that pure and well-prepared articles are vended than the contrary. In the present paper we shall state the results of our examination of two preparations of mercury; the hydrargyrum cum cretâ, commonly known as grey powder, and the protochloride of mercury, or calomel.

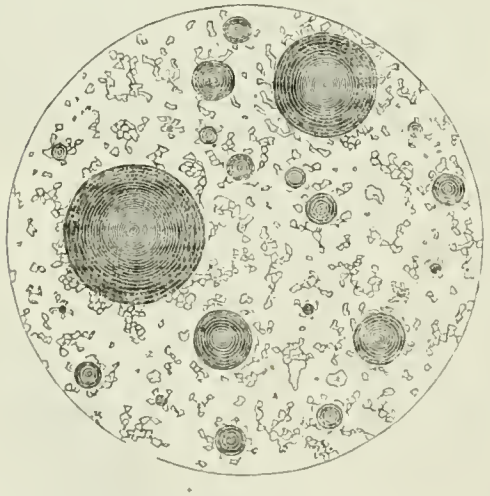
HYDRARGYRUM CUM CRETA.

This preparation is made by simply triturating metallic mercury with chalk, until the mercury becomes so finely divided by mechanical action, that the globules of the metal are no longer visible to the naked eye. This would seem to be nothing more than a mechanical mixture of mercury with chalk; but it is possible that, during the process of trituration, a minute portion of the mercury may become oxidised, so that the preparation may contain a small admixture of the protoxide of mercury. We speak of this as possible, because Phillips, in his Translation of the Pharmacopœia, 1848, states, that he has found that "a small portion of the mercury is, by the long trituration required, converted into protoxide, by which the effects derived from the use of this medicine may be readily accounted for." Pereira, on the contrary, affirms that it is a simple mixture of finely-divided mercury and chalk. Christison says, that the inquiries hitherto made rather tend to show that the hydrargyrum cum cretâ, as well as the hydrargyrum cum magnesiâ, a similar preparation, contain no oxide, but that the reverse may be presumed, both from the mode of preparing them being somewhat similar to what is practised in making the mercurial ointment, and their activity as mercurials compared with the inertness of mercury when unequivocally in the metallic

state. And he states that Mr. Nevins has found about half a grain of oxide in one hundred grains of this preparation. We have investigated this question, and found decided indications of a mixture of protoxide with a minute proportion of peroxide; but our quantitative analysis will not be completed in time for the present article. The process we followed was to act on two or three hundred grains of hydrargyrum cum cretâ with acetic acid until the effervescence ceased, and some excess of acid existed in the liquid, which was then filtered and tested with hydrosulphuret of ammonia and iodide of potassium. The former gave a black precipitate; the latter a yellow tinged with scarlet, indicating the presence of both oxides. The reduction process with protochloride of tin failed to precipitate the mercury. It may be mentioned here, that, after the chalk is taken up by acetic acid, the mercury does not collect in metallic globules, as might be expected, but remains as a grey powder with the insoluble matters which are always present in chalk.

The London and Edinburgh Pharmacopœias direct that three ounces of mercury be triturated with five ounces of prepared chalk until the globules disappear. The Dublin Pharmacopœia differs in the proportion of its ingredients, and the method of preparation. It is directed that two parts of mercury be triturated with two of manna in an earthen mortar, adding sufficient water to reduce the mixture to the consistence of a syrup. After the disappearance of the globules, 1-8th part of chalk is added, and the trituration continued until a perfect mixture is effected. Sixteen parts of hot water are then added, and the whole well agitated. The manna dissolves, and the mixture of mercury and chalk subsides; the clear liquid is poured off, the sediment washed, and, finally, mixed with a 7-8th part of chalk. Here we have a preparation containing equal parts of mercury and chalk, while that of the other "Pharmacopœias" contains a much smaller proportion.

The hydrargyrum cum cretâ of the "London Pharmacopœia," when well prepared, is a light grey, heavy powder, presenting no globules of mercury visible to the unassisted eye, but, when subjected to microscopic examination, even with a low power, the metallic globules are brought into view, intermixed with the minute irregular particles of the chalk. With a power of 195 diameters, this preparation presents the appearance figured below; the globules appearing as opaque, and consequently black, circles, varying in diameter from $\frac{1}{117}$ to $\frac{1}{2500}$ of an inch, while the chalk sometimes contains the minute silicious skeletons of infusorial animalcules commonly found in the chalk strata.



Hydr. c. cretâ, magnified 195 diameters. The dark circles represent globules of mercury surrounded by particles of chalk. Drawn with the camera lucida.

None of the authors on materia medica seem to have examined and determined the size of the globules in the well-made preparation, although it is evident that if its efficiency really depends on the minute division of the mercury, or even if it is thought to depend on a minute proportion of the protoxide, the state of division must be an admirable criterion of its activity, for, theoretically, it is evident that the longer and more perfect the trituration the larger will be the proportion of protoxide produced. We have, therefore, directed our attention to this point, and shall state below the measurements of the largest and smallest globules observed in a portion of each specimen subjected to analysis. The chemical analysis, the results of which are about to be recorded, was conducted in the following manner. It was first found, that, by applying a heat of 212° Fahr. in all the specimens, scarcely a trace of hygrometric moisture existed. A given quantity of each was then weighed in a porcelain crucible, and subjected to a low red heat until vapours of mercury ceased to rise. As the heat might have driven off a small proportion of carbonic acid, the residue was moistened with a solution of sesquicarbonate of ammonia dried, and again heated for a short time to low redness. The loss of weight, by the first application of heat, indicated the proportion of mercury, while the residue thus treated consisted of carbonate of lime. No metallic impurity was detected in the residue after driving off the mercury by heat.

The proportions of mercury and chalk directed by the London Pharmacopœia are, when reduced to 100 parts—

Mercury	37.5
Chalk	62.5
	100.0

Analysis 1.

Bought of Waugh, Regent-street:—

A light grey powder.

Max. and minim. size of the globules of mercury $\frac{1}{870}$ and $\frac{1}{1850}$ of an inch.

Water	traces.
Mercury	36·82
Chalk	63·18
	100·00

Analysis 2.

Bought of Fincham, 57, Baker-street:—

A light grey powder.

Max. and minim. size of globules $\frac{1}{870}$ and $\frac{1}{2500}$ of an inch.

Water	traces.
Mercury	37·82
Chalk	62·18
	100·00

Analysis 3.

Bought of Jacob Bell, Oxford-street:—

A very light grey powder.

Max. and minim. size of globules $\frac{1}{853}$ and $\frac{1}{2400}$ of an inch.

The larger ones scarce.

Water	traces.
Mercury	38·96
Chalk	61·04
	100·00

Analysis 4.

Bought of Hannay, corner of Wells-street, Oxford-street:

A very light grey powder.

Max. and minim. size of globules $\frac{1}{340}$ and $\frac{1}{2400}$ of an inch.

Water	0·00
Mercury	38·31
Chalk	61·69
	100·00

Analysis 5.

Bought of Hooper, Pall-mall:—

A light grey powder.

Max. and minim. size of globules $\frac{1}{117}$ and $\frac{1}{1453}$ of an inch.

Water	0·00
Mercury	39·28
Chalk	60 72
	100·00

Analysis 6.

Bought of Willcox, Oxford-street:—

A dark grey powder.

Max. and minim. size of globules $\frac{1}{117}$ and $\frac{1}{1453}$ of an inch.

The greater number of the globules large, the smaller comparatively scarce.

Water	traces.
Mercury	41·18
Chalk	58·82
	100·00

Analysis 7.

Bought of Goodyer, Regent-street:—
A dark grey powder.
Max. and minim. size of globules $\frac{1}{17}$ and $\frac{1}{150}$ of an inch, the larger globules predominating.

Water	0·00
Mercury	41·85
Chalk	58·15
	100·00

Analysis 8.

Bought of Kitchen, Charing-cross:—
A dark grey powder.
Max. and minim. size of the globules $\frac{1}{17}$ and $\frac{1}{350}$ of an inch; some very large globules, most of them of medium size, but a considerable number of smaller ones.

Water	0·00
Mercury	40·72
Chalk	59·28
	100·00

Analysis 9.

Bought of Colk, 29, Fleet-street:—
A very dark grey powder.
Max. and minim. size of globules $\frac{1}{17}$ and $\frac{1}{350}$ of an inch, the larger globules predominating.

Water	0·00
Mercury	40·85
Chalk	59·15
	100·00

Analysis 10.

A rather dark gray powder.
Max. and minim. size of globules $\frac{1}{250}$ and $\frac{1}{2104}$ of an inch.
In this specimen the larger globules predominated greatly.

Water	0·00
Mercury	39·93
Chalk	60·07
	100·00

From these analyses, it will be seen, that in only one of the specimens, that from Waugh, Regent-street, the mercury was below the quantity ordered by the Pharmacopœia. In all the others the mercury was in excess, and in some it exceeded the proper proportion by 4·35 per cent., or about one-ninth of the entire mercury contained in the preparation. The samples subjected to analysis varied considerably in colour, as we have noted; those approximating to the proper formula being of a light grey; those containing mercury in excess being dark grey. The globules of mercury in the dark specimens were, on the whole, larger than those in the lighter coloured samples.

PROTOCHLORIDE OF MERCURY.—CALOMEL.

This compound, named on account of the mildness of its action in comparison with the bichloride or corrosive sublimate, *mercurius dulcis*, by the older authors, is one of the most important and generally-employed preparations of mercury. It exists in nature as a mineral, known to mineralogists as horn quicksilver, and may be artificially prepared by several processes. Chlorine has a strong affinity for mercury, and the protochloride is formed when chlorine comes in contact with metallic mercury at ordinary temperatures. It may be also obtained by dissolving mercury in cold, somewhat dilute, nitric acid, and precipitating the solution of protonitrate thus produced by hydrochloric acid, or, still better, by chloride of sodium. The disadvantage, however, of this process is, that the product is apt to be contaminated with some subnitrate of mercury. The process now employed is that by sublimation. That, directed by the London Pharmacopœia, consists in acting on two pounds of mercury with three pounds of boiling sulphuric acid until the bipersulphate of mercury becomes dry; this is rubbed with other two pounds of mercury until a perfect mixture is obtained; one pound and a half of chloride of sodium is next added, and the trituration continued until the globules disappear. This mixture is sublimed, the sublimate reduced to a fine powder, carefully washed with distilled water and dried.

In this process, when mercury is boiled with concentrated sulphuric acid, a bipersulphate of mercury is formed, together with the evolution of sulphurous acid gas, for

$$Hg + 4SO_3 = HgO_2, 2SO_3 + 2SO_2.$$

By mechanical mixture with an additional equivalent of mercury, this salt may be considered as reduced to the state of a protosulphate, or $2(HgO, SO_3)$. When mixed with a sufficient quantity of chloride of sodium, and heat applied, a mutual decomposition of the protosulphate of mercury and chloride of sodium occurs; the protochloride of mercury is sublimed, and sulphate of soda remains in the subliming vessel. Thus:—

$$2HgO,SO_3 + 2NaCl = 2HgCl + 2NaO, SO_3.$$

But, as in the manufacturing process there are apt to be some irregularities in the proportions or mixture of the ingredients, and, indeed, as a certain quantity of the chloride is decomposed by heat, a small proportion of bichloride sublimes with the protochloride, and to rid the calomel of this—the bichloride—it is directed to be reduced to an impalpable powder, and repeatedly washed with boiling distilled water until all the bichloride is removed.

In order to obtain the protochloride in as minute a state of division as possible, it has been proposed to convey the vapours during the process of sublimation into a vessel containing hot water or steam, by which an extremely fine powder is obtained, and any bichloride is at once dissolved. In the ordinary process the chloride collects in the receiver as a cake, which, when broken, exhibits a fibrous crystalline structure, and, when perfect crystals are obtained, they take the form of quadrilateral prisms, with four terminal facets.

Calomel, as seen in the shops, is a fine white powder, often presenting a slight yellowish tinge, if long kept, produced by the action of diffused light. It is blackened by long exposure to direct solar light, a portion being resolved into metallic mercury and the bichloride. It is tasteless, and so insoluble in water, that a grain of hydrochloric acid mixed with 250,000 grains of distilled water, produces a sensible deposit of this salt, when mixed with a solution of protonitrate of mercury. Solutions of potass, soda, lime, and others of the stronger bases decompose it, abstracting the chlorine, and leaving the black protoxide of mercury. Its specific gravity is 7.2. It is volatile and sublimes at a temperature below redness without melting, giving off abundance of white, inodorous fumes, which, when freely mixed with air, condense into an impalpable, white powder. It is scarcely acted on by acids.

The impurities which occur in calomel may either result from carelessness in the process of preparation, or by wilful addition of some non-volatile substance. The most frequent impurity is the bichloride, which arises from imperfect pulverization and washing, or a subnitrate, if the calomel has been prepared by the moist process. The former may be detected by digesting the calomel with water at a heat below the boiling point, or with alcohol, or by agitating the calomel with sulphuric ether,—either of these agents dissolving out the bichloride. The alcoholic and etherial liquids are then evaporated to dryness by a gentle heat; the residue, if any, taken up by water, and the solution tested with liquor potassæ, which produces a yellow precipitate; with iodide of potassium, which produces a scarlet; and with sulphuretted hydrogen, which throws down a black precipitate. The subnitrate is detected, according to Berzelius, by heating the calomel in a test-tube, when the air is reddened by the disengagement of binoxide of nitrogen, and a distinct odour of nitrous acid becomes perceptible. The fixed impurities are detected by driving off the calomel by a heat below redness, when the impurity remains in the crucible.

In the following analytical examinations, we have had especial regard to the presence of the bichloride and any fixed impurities. To detect the former, we agitated a given portion of calomel with ether in preference to water, as directed by the "London Pharmacopœia," because it might be alleged that a minute portion of the calomel might be decomposed by hot water, and produce erroneous results. The ether was filtered from the calomel, allowed to evaporate spontaneously, a small portion of water poured into the capsule, and the liquid tested with sulphuretted hydrogen, iodide of potassium, and liquor potassæ. For the detection of any fixed impurity, a given portion of the chloride was weighed in a small porcelain capsule, and heated below redness until all the calomel was dissipated in fumes.

Analysis 1.

Bought of Allen, Plough-court :—
Pure; giving no indication of biehloride of mercury, or appreciable fixed residue.

Analysis 2.

Bought of Burfield, 180, Strand :—
Pure.

Analysis 3.

Bought of Bower, 96, Tottenham-court-road :—
Pure.

Analysis 4.

Bought of Wilkinson. 248, Strand :—
Pure.

Analysis 5.

Bought of Simpson, Newington Butts :—
Pure.

Analysis 6.

Bought of Gerard, 390, Strand :—
Pure.

Analysis 7.

Bought of Willmott, Borough :—
Pure.

Analysis 8.

Bought of Windus Brothers, 235, Strand :—
Pure.

Analysis 9.

Bought of Gifford and Linder, 101, Strand :—
Pure.

Analysis 10.

Bought of Hooper, 7, Pall Mall :—
Pure.

The result of these analyses is very gratifying, inasmuch as they prove that an important article of the Materia Medica in every day use is seldom, if ever, impure, or wilfully adulterated. The minute portion of fixed residue which we found in each case is unavoidable in a manufacturing process, and ought not to be reckoned as an impurity.

MEMOIR OF THE LATE JONATHAN PEREIRA, M.D., F.R.S.

[The following memoir, written for this Journal by Dr. Letheby, was in type last week, as we then announced; but it appeared to us expedient to submit the proof sheets to some intimate friends of the deceased gentleman, in order to verify and substantiate some of the statements which they contained. This has accordingly been done; and we now present the corrected history to our readers.—Ed.]

In a recent number of our Journal we had to perform the mournful duty of recording the sudden death of this distinguished physician, and we now take the opportunity of placing before our readers a few particulars relative to his life and professional career. We are confident that these will be read with interest, for assuredly there is not any one in our day whose labours have produced so important an influence on the whole science of practical medicine. It has been truly said of him, that he was the means of rescuing therapeutics from the chaos of hypothesis and absurdity in which it was involved, and of placing it on the firm basis of sound philosophy and true scientific principles. To such men humanity is largely indebted, and his name will ever occupy a prominent place in the history of the nineteenth century.

Jonathan Pereira was born in London, on the 22nd of May, 1804. He was educated at the private academy of Mr. Norris, in Queen-street, Finsbury. That gentleman was a teacher of great classical attainments, and there can be no doubt that his scholar availed himself of them to the utmost, for it is known that he was regarded as a favourite pupil, and that Mr. Norris was accustomed to point him out as a boy of no ordinary merit.

At the age of fifteen he left school, and was articled as an in-door apprentice to Mr. Latham, a general practitioner, of the City-road. There he spent about three years of his time, when his master became the subject of mental derangement, and his indentures were cancelled. During his short apprenticeship, he saw the necessity for acquiring a perfect knowledge of the Latin language, and, in his leisure hours, he exercised himself in making translations from the works of the ancient classics. He also drew up a vocabulary of the terms most commonly employed in medical literature.

On leaving Mr. Latham's, he was advised to attend the lectures which were given at the Aldersgate-street Dispensary. These were a short course on chemistry, materia medica, and the practice of physic, by Dr. Clutterbuck; a few occasional discourses on natural philosophy, by Dr. Birkbeck; and a few on botany, by Dr. Lambe. In 1822 he entered to the surgical practice of St. Bartholomew's Hospital; and while he was thus engaged in pursuing his medical studies, a vacancy occurred in the office of apothecary at the General Dispensary. His friends, Drs. Clutterbuck, Birkbeck, and Lambe, the physicians to the Institution, were very anxious that he should have the appointment. He consequently prepared himself for examination, and on the 6th of March, 1823, he passed the Apothecaries' Hall, and was soon afterwards elected to the office. From that time may be dated the commencement of his distinguished career, for in the course of his studies he had not failed to notice the meagreness of information generally possessed by medical pupils, and he determined to improved their condition by the exercise of his own indefatigable mind. He therefore originated a private class, and gave instructions to those who were preparing for the Hall and College. His success in this was very great, and he was tempted to publish a few small books for the assistance of his class and others; these were, 1st, "A Translation of the London Pharmacopœia of 1824," in which he described the various preparations, their re-actions and chemical decompositions; 2nd, "The Selecta è Prescriptis," a little work which in 1851 reached its eleventh edition; 3rd, "A Manual for the use of Students," which subsequently became the property of Dr. Steggall, who is still its editor; and 4th, "A General Table of Atomic Numbers, with an Introduction to the Atomic Theory." All these works had a very extensive sale, and the name of Pereira was soon recognised as that of a careful and industrious teacher.

In the summer of 1825 he passed the College of Surgeons. In the winter of the following year Dr. Clutterbuck resigned the chair of chemistry, and Pereira gave his first lecture. We are told that the large room of the Dispensary was thronged with his friends and pupils, all of whom were surprised at the simplicity of his style, the extent of his knowledge, and the number of his illustrations. The lecture was devoted to an account of the rise and progress of chemistry, and it appears that he took a general survey of the science from the earliest time down to the very day on which he lectured. We are informed that the table was covered with illustrations, and that, among other things, he showed a specimen of the new haloid bromine, which Balard, of Montpelier, had just discovered. Such a display had never before been seen in any medical school in the Metropolis, and the congratulations of his friends were warm and earnest.

About that time he began to turn his attention to the science of therapeutics, and he was not long in perceiving that it might be made the means of both profit and renown. He saw that its facts were involved in confusion, that the professors of it had misunderstood its powers and lost sight of its principles, and he at once decided on rescuing it from its fallen condition. To this end he laboured most diligently; he brought together the works of ancient and modern writers; and, in order that he might consult the authors of France and Germany, he engaged tutors to instruct him in the languages of those countries. Before two years had elapsed, he had become acquainted with the entire literature of the subject, and we are told that at that time he devoted about sixteen hours a-day to this labour of love. He was at it early in the morning and late at night, and in fact he grudged himself the little time which was necessary to repose and sustenance. All his remarks were committed to paper, and so careful was he to give to every author the utmost credit due to him, that he recorded every fact in the most circumstantial manner. He began to lecture on this subject in 1828, but he did not consider that he had mastered it for many years afterwards, and consequently he was so much engaged in the prosecution of his studies, writing and re-writing his lectures, that we do not meet with him as an author for several years. In fact, the only paper that he published between 1827

and 1835 was on the adulteration of hydriodate of potash. This appeared in the *London Medical and Physical Journal* for 1829, and it was transferred to the pages of the *Medical Gazette* for the same year.

Devoted as he was to the interests of his pupils, he could not fail to secure their esteem, and to reap the substantial rewards of his industry. His class was the largest in London; and in 1832 his affairs were in so prosperous a condition that he determined on leaving the dispensary, starting in practice for himself, and becoming a benedict. Accordingly, in that year he resigned his office in favour of his brother, took a large house in Aldersgate-street, and was married—the object of his choice being in every way worthy of so distinguished a partner; indeed, we have his own published testimony for the fact, that she was of great assistance to him in the subsequent labours of his life. He left the dispensary a few months only before that outbreak occurred which brought the credit of the institution to the ground, and led to that noble display of feeling on the part of its medical staff which will be for ever remembered as an honour to the Profession, and a disgrace to the huckstering spirit of the men who occasioned it.

In the year of his marriage, he was solicited to join the new Medical School, in Aldersgate-street, and also to take Dr. Gordon's place, as Lecturer on Chemistry at the London Hospital. He accepted office at both of these institutions, and he commenced his duties in the winter session of 1832. While he was at the Aldersgate Medical School he made the acquaintance of Dr. Cummin, who lectured on forensic medicine at that school, and was also the learned editor of the *Medical Gazette*. Dr. Cummin saw the great value of Pereira's lectures, and he induced him to re-write them for the forthcoming new series of the Journal; accordingly, as our readers are aware, they were published in the *Medical Gazette* for the years 1835-36-37. This established his reputation as an author as well as a teacher, and the lectures were so much in request that they were re-published in Germany and in India.

At the Aldersgate School his classes were so large that he found it necessary to build a new theatre, which he did at his own expense; and, indeed, his popularity was so great that some of the authorities of St. Bartholomew's Hospital invited him to join their school. This he agreed to do, and the arrangements had gone so far that he published a syllabus of his intended lectures; but when he was informed that the by-laws of the hospital imposed upon him the necessity of relinquishing his lectures elsewhere, he immediately declined to take office, notwithstanding that he left the Aldersgate School about a year afterwards. The truth is, he was a man of most liberal sentiments, and he spurned every overture that was not as open and free as his own conscience.

The appearance of his lectures in the *Medical Gazette* was followed by the production of his "Elements of Materia Medica and Therapeutics," the first volume of which appeared in the year 1839, and the second in 1840. In the former of these years he was appointed Examiner in Materia Medica at the London University, and during the latter he moved into Finsbury-square, took his doctor's degree at Erlangen, became a licentiate of the Royal College of Physicians, and commenced pure practice. On the 3rd of March, 1841, he was elected to the office of Assistant-Physician at the London Hospital. In 1842, he published a second edition of his "Elements," and he delivered a course of lectures at the Pharmaceutical Society. When the school of this Society was formed, in 1843, he was appointed their Professor; and during that year he published his work on food and diet. In the year following, he found that his practice was rapidly increasing, and he therefore decided on relinquishing gradually the more scientific part of his duties; accordingly, in 1844, he resigned a part of the course of chemistry, which he then delivered at the London Hospital, into the hands of Dr. Letheby; the next year he gave up a larger portion, and in 1846 he relinquished it altogether. A year before this he was elected a fellow of the Royal College of Physicians; and at that time he had resolved to continue his lectures on materia medica; but, when the new regulations emanated from the Apothecaries' Company, and directed that his subject should be taught in the summer time, he resigned his lecture duties at the hospital; and we do not find him again addressing his class until he was elected full physician. This occurred in 1851; and during the following years he gave a few clinical discourses. Our readers are aware that the first volume of the third edition of his "Elements" appeared in 1849, and that the first part of the second volume was published in 1850. He was engaged in the production of the concluding part when his career was arrested by death. Who will be appointed to conclude the work, and to edit its future editions, is more than we can predict, for assuredly there was not his equal in all the land.

It only now remains for us to say, that he enjoyed large honours during his lifetime, and that, had he been spared, he would have reaped the more substantial rewards of a lucrative practice. He was a fellow of the Royal, the Linnæan, and other scientific societies. He was in constant communication with the learned of all countries. He formed an excellent library and museum; and, indeed, his industry extended itself to all places and affected all classes of persons. He was a liberal advocate of popular education; and he did not refuse to lend his aid in the support of literary and scientific institutions. In fact, some of his most useful and attractive discourses were delivered in these places. A glance, therefore, at the labours of his life will show that he has been a giant of industry; and we are not saying too much when we add, that the effects of these labours will last through all time.

REVIEWS.

A Treatise on Operative Ophthalmic Surgery. By H. Haynes Walton, Surgeon to the Central London Ophthalmic Hospital, and Assistant-Surgeon to St. Mary's Hospital. 8vo. Pp. 628. London: John Churchill. 1853.

Of all the branches of his science with which the practical surgeon should make himself familiar, no one is more interesting than that of ophthalmic surgery; and there is no department which requires more study and inquiry than that which embraces the diseases of the eye. Some, indeed, have looked upon it as a specialty, and endeavoured to make it so; but if we look to the men who have most distinguished themselves by their knowledge of the pathology and treatment of diseases of this organ, we find that they were or are men alike eminent in the general departments of surgery. The names of Saunders, Farre, Travers, Guthrie, Tyrrell, and Morgan, attest the truth of this statement, and prove that a good knowledge of ophthalmic surgery is most readily gained by those who make themselves thoroughly acquainted with practical surgery on a more comprehensive scale. Mr. Walton is already well known to the Profession, not only as one who has cultivated surgery generally, but as having devoted much attention to diseases of the eye; and from his experience as surgeon for many years to a large ophthalmic institution, he is justified in coming forward as an author.

Several works upon the treatment of diseases of the eye have been published during the last thirty years, but it is nearly as long ago as the commencement of this period that any work specially devoted to operative ophthalmic surgery appeared. Since Mr. Guthrie's book was published, there has been such a vast improvement connected with this particular department of surgery, that there was great need of a work exclusively devoted to it, comprehending the most modern additions to our knowledge on this subject. It may be truly stated, that Mr. Walton has supplied this want in a most satisfactory manner. The volume before us is a beautiful and comprehensive work; and it is evident that the author has expended upon it no small amount of labour. We are sorry that it is not in our power to devote so much space as we could wish to the consideration of its contents; but we will endeavour to give an analysis of it, and to point out what is chiefly novel and interesting.

The work is divided into twenty-two chapters, in each of which some particular subject connected with operations on the eye is considered.

In the First Chapter, the author has detailed, at considerable length, the history of ophthalmic surgery. We are somewhat inclined to believe, that the work would have been quite as good as it really is, if Mr. Walton had omitted these somewhat dry and uninteresting details. The next chapter, however, is more to the point, and will be read with interest; it is devoted to the consideration of the Use of Chloroform in Ophthalmic Surgery, and the author comes

to the conclusion, that, "except the operation for the extraction of cataract, or the division of the cornea to a like or nearly equal extent for any other purpose, there is no operation on the eye, in which well-founded objections exist to the previous use of chloroform or ether as anæsthetic agents."—P. 50.

Every one who has had much to do with this part of surgery can appreciate the immense assistance which chloroform affords in operations about the eye. In strabismus, for instance, some persons are so extremely unruly, that, without the anæsthetic agent, it would almost be impossible to get through the operation successfully.

The next three chapters are devoted to the description of certain instruments used in ophthalmic surgery, and to the consideration of the effects of injuries from chemical and mechanical means and foreign bodies in the eye. Some of the author's observations on these points are excellent, and prove that he has studied his subject well. The remarks upon bloodletting and the use of mercury in inflammation of the eye are very sound. He strongly cautions the surgeon against taking away too much blood:—"The necessity of moderation in the abstraction of blood cannot be too energetically urged. The quantity should be regulated by the local symptoms and the age and general condition of the patient, otherwise destructive rather than conservative effects may result. Disease cannot be bled out of the eye, as some surgeons seem to think."—P. 68.

Mr. Walton objects to opening the cornea for the purpose of evacuating pus or blood effused into the chambers of the eye, and he gives some remarkable instances of the spontaneous absorption of these fluids. Here is an instance of the latter:—

"A man, fifty-two years old, walking in the street on a Saturday night, was struck on his eye by a stone and lost his sight; and on Sunday he was brought to me. The chambers of the eye were so discoloured with blood, that neither the iris nor pupil was visible. Cold lotion and a cathartic were ordered, and alcoholic drinks prescribed. On Tuesday evening the pupil was visible; the aqueous fluid still turbid, and a clot of blood was at the bottom of the anterior chamber. Sight was returning. On Thursday, at noon, the chambers were clear, and a light coloured clot was noticed by Dr. Taylor lying across the capsule of the lens. The iris was thrown forwards nearly in contact with the cornea, a state which was attributed to effusion of blood posteriorly. Just a fortnight later the eye had completely recovered the injury. The anterior chamber was restored, and vision had returned."—P. 80.

Chapters VI. and VII. treat most elaborately of those important and interesting affections comprehended under the diseases of the eyelids and of the lachrymal passages.

A great number of the cases which the ophthalmic surgeon is called upon to treat are included in the diseases of the lids and appendages, and the resources of his art are most effectually brought into play for the removal of disease or disfigurement, by well adapted and well executed operations. We may instance those abnormal conditions termed ectropion and entropion, of which so many examples are met with amongst the inhabitants of large towns, either from previous or concurrent disease, or from accident. To these affections, in particular, Mr. Walton has devoted considerable attention, and no part of the work is better or more clearly written, than the chapter treating of these conditions, and their remedy by operative means.

Mr. Walton entertains peculiar and novel views with reference to the cause and pathology of entropion, and he has propounded a mode of treatment in accordance with these opinions. It was generally supposed that the affection depended mainly upon tegumentary disarrangements, or upon a diseased state of the conjunctiva; but our author is of opinion that entropion is the result of muscular action.

"The similarity of curvature in every case of entropium, the implication of the whole lid, and the symmetry of the deformity, induced me to attribute all forms of the affection to one and the same cause, that of muscular action; but doubting the power of that part of the muscle situated on the edge of the lid, which is described as the thinnest portion of the orbicularis, to exercise such an action,—and from that part alone could such effect be produced,—I made dissections to satisfy myself of its real nature. I found that over the edges of the lids, for about the sixth of an inch, the muscle is thicker, perhaps twice as thick, as over the remainder of them, as is usual in a sphincter; the fibres also were redder, larger, and more compact. In the lower lid this marginal portion is greater, and the fibres lie irregularly in bundles."—P. 160.

It is well known that the most usual operation for remedying this very uncomfortable and sad affection was to snip away a transverse fold of the skin of the lid, and thus produce contraction. In slight cases, this had a good effect; but, in instances of severity this proceeding was only of temporary benefit, for the affection re-appeared. Mr. Walton, however, having found out the true nature of the affection, has been enabled to adopt a more scientific and more satisfactory mode of procedure, in accordance with the views propounded by him. His operation consists in dissecting away the thickened edge of the orbicularis muscle, at the same time that a corresponding portion of the integument is removed.

This proceeding has the merit of being based upon strict scientific principles, just as much so, in fact, as is the operation of tenotomy for club-foot, or of staphyloraphy in cleft palate; and we are prepared for the assertion of the author, that he has operated successfully in fifty cases.

The three following chapters are devoted to Caries of the Orbit, Nævi, and Chemosis.

The author, perhaps, has dwelt at two great length upon the subject of nævi and aneurism by anastomosis. It would, perhaps, have been as well had he confined himself to the consideration of those affections involving the orbit and lids. However, the subject is so very well treated, that we ought not to find fault. A very interesting case is related where he performed the operation of tying the common carotid artery in a child only four months old, who had a protrusion of the eyeball, the effect of an aneurism by anastomosis within the orbit. The operation was in every respect satisfactory.

Chapter XI. is devoted to the consideration of Strabismus and its treatment by operative means. We learn from Mr. Walton, that persons affected with squinting eyes were treated by surgical means more than 100 years ago; but we are not told what those means were.

"The earliest application of practical surgery to the treatment of squint was by Taylor, more than a hundred years ago; for, according to the 'Bibliothèque du Médecin Praticien' for 1849, there is in the *Mercury of France* for June 1737, the following announcement:—'Dr. Taylor, oculist to the King of Great Britain, has just arrived at Paris, at the London Hotel, Rue Dauphine, where he purposes remaining till the middle of July, after which he will leave for Spain. He requests us to publish the discoveries he has made of straightening squinting eyes by a slight and almost painless operation, and without fear of accident."—P. 275.

The author has made some excellent observations in reference to the influence which a squinting eye exerts upon the one of the opposite side, and upon the difficulty which sometimes is experienced by the surgeon in coming to a correct conclusion as to which eye is in reality affected. There is not any surgeon having had much to do with cases of strabismus, who has not occasionally felt great difficulty in deciding as to which eye it is that squints, for in numerous cases of single internal squint the affection is apparently changed from one eye to the other, and not unfrequently it is thought that both are at fault. The consequence is, that the surgeon has operated upon the wrong eye, or has, without hesitation, considered it necessary to divide the internal rectus of each. This difficulty is by no means an imaginary one, and we are pleased to find that so experienced an observer as Mr. Walton has deemed it necessary to caution operators against falling into this mistake, and to explain the sources of the error. The means he adopts for ascertaining with accuracy which eye is involved are as follow:—

"It is not an easy matter to determine which is the defective eye, and the sound eye is sometimes operated on. When this cannot be readily ascertained, I place the patient in front of me, at the distance of two or three yards, and direct him to cover one eye, say the left, and look at me with the other, keeping the head straight—the right eye will be in the centre of the orbit; I then direct him to uncover the left. Now, if the right, which has not been closed, is normal, it will keep its central position, while the left is turned inwards; but if it be deformed it will turn in, while the left will become straight. The experiment should be reversed."—P. 279.

The four succeeding chapters are devoted to Tumours of

the Eye and parts connected with it, Protrusion of the Eyeball, Staphyloma, and Conical Cornea. All these subjects are well and practically considered. In the Sixteenth Chapter, the operation of removal of opacities of the cornea is described. Mr. Bowman's researches upon this subject are fully referred to, but the author does not appear to have had the success which that gentleman has had in this operation.

Chapter XVII., consisting nearly of one hundred pages, is devoted to that all-important subject, cataract, and to the various modes of treatment for the cure of this affection. Mr. Walton, we think, has much simplified the subject by merely recognising two distinct varieties of cataract, viz., the lenticular and capsular. The pathology of the affection is considered at length, as also are the complications of cataract, and the diagnosis from other diseases of the eye; namely, amaurosis and glaucoma. We have not room for quoting any of these observations, but we refer to them as being especially excellent and practical, as are also the remarks on the treatment preparatory to operation. We must refer the reader to the work itself for the accurate description of the various methods of operating for cataract. We may here state, however, that, in extraction, Mr. Walton prefers the upper section of the cornea.

"I am in the habit of dividing the cornea in the upper part, preferring that section, as it possesses some advantages over the lower,—such as the greater certainty in making it effectually, and the less likelihood of the flap being interfered with by the lid."—P. 446.

He also strongly opposes the opinion, that an escape of some portion of the vitreous humour is an advantage rather than otherwise, and cautions the operator against allowing it to happen:—

"Except when the vitreous humour is dissolved, when no operative skill can invariably prevent a partial loss, escape of any of it must be placed to the account of bad operating; and, unless it be to cover this defect, I cannot understand why it has been stated, that depriving the eye of a part of this fluid is advantageous."—P. 454.

In the remaining five chapters of this work, the following subjects are treated of:—Entozoa within the Eyeball,—Artificial Eyes,—Malignant Affections of the Eye,—Artificial Pupil, and Extirpation of the Eyeball. The question of operation for malignant disease of the eye is handled in an honest and unprejudiced manner; and we may state, that, in the operation for making artificial pupil, Mr. Walton invariably operates through the cornea.

We have yet to speak of that most beautiful portion of the work, namely, the plates, of which there are one hundred and sixty-nine, admirably executed by the Messrs. Bagg. They enhance, to a great degree, the value of this book, which we look upon as one of the most finished and comprehensive works which has of late years emanated from the medical press. It must have cost Mr. Walton much labour, but he has already been rewarded, for it stamps his character at once as a sound and experienced ophthalmic surgeon.

Principles of the Anatomy and Physiology of the Vegetable Cell. By Hugo Von Mohl. Translated by Arthur Henfrey, F.R.S. London. 1853.

The little work before us acquires an importance in botanical literature, not only from the consideration that the cell is the very type and beginning of vegetable structure, but from the fact, that on the formation and functions of the vegetable cell Hugo Von Mohl is the greatest living authority. For this excellent translation we are indebted to that most indefatigable of English botanists, Mr. Arthur Henfrey. It will well reward a careful perusal; but we shall content ourselves now with a brief reference to some of those points on which the views of Von Mohl are most original or peculiar.

When the vegetable cell was first submitted to microscopical inspection, appearances were seen which induced many of the observers to suppose that the cell-wall was composed of a closely-coiled flat spiral ribbon. Various other notions of the same kind were entertained. Raspail thought that the cell-membrane was made up of spirally-arranged molecules; Grew had suggested interlacing fibres; Dutrochet and others discovered pores and apertures in this compound cell-wall. But it remained for Mohl to demonstrate that the primary cell-wall is thin and homogeneous, and that the other appearances are due to secondary deposits which take place within this. These secondary layers are often pitted and perforated, but the perforations do not extend to the outer coat. Often the secondary deposit is in the form of a flat fibre, which is then arranged in a spiral or reticulated manner.

Sometimes, particularly in vessels, these fibres are arranged in regular rings. Unger and Schleiden accounted for this, by supposing that either each separate coil of a spiral has united into a ring, or the annular fibres are formed out of two broken spirals crossing in opposite directions. But Mohl considers that the rings were deposited as they are seen, and that the annular arrangement is as original and as natural as the form of the spiral.

In opposition, again, to Mulder and Schleiden, the author believes that the primitive cell-wall invariably consists of cellulose, a ternary compound; but that the secondary deposit may contain nitrogen.

On the subject of intercellular substance, which he formerly believed to exist in plants to a considerable extent, his views have lately undergone an important modification. Such intercellular matter is, in fact, found very sparingly in vegetable tissues; and wherever it appears, there is reason to suppose that it has either been originally surrounded by a cell-wall, since dissolved, or has been secreted from the outer walls of adjacent cells.

Immediately within the wall of young and growing cells is a layer, termed by Mohl the "primordial utricle," and in the centre, according to the same author, is the roundish mucilaginous mass, called the "nucleus." Upon these two structures hinge the two German theories of cell development. Schleiden states, that the nucleus is situated on the wall of the old cell; that there may be two or more nuclei in the same cavity; and that from and around each nucleus the young cell-wall grows, expanding until it bursts through and destroys the old one. Mohl's theory is fundamentally different, and has been so far confirmed by the majority of botanists, that we must conclude the observations of Schleiden to have been incorrect. Mohl has observed, that the primordial utricle constricts gradually at one or more points, until out of one sac several cavities are produced; that these then expand, around each a cell-wall is formed, and at length they burst through the old cell. So rapid and so wonderful is this cell-growth in some plants, that a large fungus, the bovista gigantea, which grows in one night to an enormous bulk, has been computed to increase at the rate of sixty-six millions of cells in a minute!

The thin cell-wall, and the soft layer within it, are readily permeable to gases and liquids. Through the cells, and the vessels which are formed out of them, the circulation of the sap goes on. By the cells on the surface of leaves and green parts the gases of the atmosphere are breathed and decomposed, appropriated or rejected.

On the subject of the impregnation of the ovule, and the wonderful out-growth of the little pollen-cell, the views of Schleiden and the discoveries of Amici are well known to botanists. Mohl adopts the opinion of Amici.

The Treatise closes with an interesting account of the curious movements manifested by certain plants, phenomena of which philosophers can give no explanation, but which they ascribe to vegetable irritability. With some of these motions we are sufficiently familiar; the tendrils of climbing plants turn round an opposing object; the leaves of many plants close at sunset; the leaves of the sensitive plant collapse; the stamens of many plants spring suddenly forwards; and the ripe capsules of the balsam discharge their seeds forcibly when simply touched with the finger; the leaf of the dionæa closes up, and catches an unwary insect that may have perched upon it; the stipules of desmodium gyrans are continually turning round and round.

A fact, first noticed by Professor Marcet, of Geneva, is worthy of mention here. It is found that chloroform and solutions of morphia and conia, liquids which have the power of putting a stop to the muscular motions of animals, are similarly able to destroy, for a time, the natural irritability of the sensitive plant. But we are induced to suppose that such agents act as sedatives on the nerves of animals. How, then, can we explain this analogous effect on plants? Have plants nerves?

The strange and active way in which the spores of some algæ, as the diatomaceæ and desmidiæ, move about in water, has led some to the belief that they are infusorial

animalcules. The ingenious Ehrenberg, by the aid of his microscope and his imagination, has discovered that they have little eyes, little intestines, a little mouth, little feet to move about with, and all the apparatus of a higher existence. Thus were these poor little plants elevated, with all due solemnity, to the dignity of animals,—an honour they could little have dreamed of when they first hopped into existence. But though some still contest the point on other grounds, nothing can now be more clear than that this motion, though apparently voluntary, is no proof by itself of a claim to a place in the animal scale.

Atlas of the Formation of the Human Body in the Earliest Stages of its Development; compiled from the Researches of the late Professor Dr. M. P. Erdl. By Joseph Kahn, M.D. (Vienna.) Illustrated by sixty figures, contained in thirteen plates. London: Churchill, 1852.

The beautiful series of coloured plates, which form the principal feature of this work, present to the view a complete history of the origin and progress of the human embryo during the first eight weeks of utero-gestation, and they are exact copies, made by the practised hand of Mr. J. C. Frank, of the models in Dr. Kahn's museum. The first plate represents the external and internal sexual organs of the female partially laid open, the ovary of one side being divided to show its stroma, and the Graafian vesicles and an ovum being seen passing through the Fallopian tube in its course to the uterus. The second plate exhibits the microscopic characters of the spermatozoa of the male, together with the appearances presented by the ovum, both unimpregnated and impregnated. The third plate represents the ovum in course of development, the body of the embryo gradually elevating itself from the vitellus, and the omphalo-meseraic mass separating itself from the embryo, and dividing into the allantois and the umbilical vesicle. The fourth plate presents us with the further development of the embryo, which is now surrounded by the amnion, and the latter by the chorion; the umbilical vesicle begins proportionally to diminish in size, and the allantois tends to form continuations with the villi of the chorion. The fifth plate exhibits a section of the uterus and the formation of the decidua. The sixth plate gives an elaborate and beautiful representation of the embryo suspended in the uterine cavity by means of the umbilical cord, which is now completed by the amalgamation of the allantois with the villi of the chorion, now forming the rudimentary placenta. The body of the embryo is enveloped by the amnion, and outside the amnion is the atrophied umbilical vesicle, suspended to the amnion by a long cord; the amnion is surrounded by the chorion, which is now covered with villi upon the whole of its external surface; and outside the chorion are the decidua vera and reflexa; the cervix uteri is plugged up by mucous secretion. The seventh, eighth, ninth, and tenth plates represent various points in the anatomy of the embryo at various periods of its development. The eleventh and twelfth plates are specially devoted to the development of the head of the embryo; and the thirteenth exhibits the rudimentary conditions of the sexual organs. These consist at first only of a simple fissure, the sides of which gradually coalesce in the middle, forming the perinæum; the clitoris expands into the penis in the male, but retains its rudimentary condition in the female; the nymphæ of the female become the scrotum of the male; the central fissure is persistent in the female, but is closed up in the male with the exception of the orifice of the urethra, the only remnant of the original separation of the parts along the median line.

Every student of physiology should possess these excellent plates, which are published at so small a price as to make them accessible to all, but, we fear, to render their sale unproductive, in a pecuniary sense, to their authors and designers.

Royal Institution.—A general meeting of the members of the Royal Institution was held on the 7th inst.; W. Pole, Esq., F.R.S., Treasurer, in the chair. The following gentlemen were elected members:—Thos. W. Allies, Esq.; J. Bell Brooking, Esq.; John Forster, Esq., F.R.S.; John Henderson, Esq.; and Thomson Hankey, Esq. Thanks were voted to Professors Faraday and Williamson, and to the Astronomer-Royal, for their discourses on January 21 and 28, and February 4, abstracts of which are shortly to be issued to the members.

GENERAL CORRESPONDENCE.

DR. MARSHALL HALL.

[To the Editor of the Medical Times and Gazette.]

Sir,—I believe that every candid member of the Profession will admit, that, in carrying out the application of the diastaltic nervous system, as exemplified in my late publications on inorganic epilepsy, I have begun an investigation full of important results to suffering humanity, and that I have conferred this benefit on our Profession,—that I have rescued that most Herculean, complicated, and hitherto incomprehensible disease from the domain of mere empiricism for ever.

Every true friend of humanity, and every real friend of our Profession, would deeply deplore the event which should arrest the progress of our knowledge in this important malady.

I am about to relinquish my Profession in search of my own health, and that of another. I have thought it *right* and "fair" to search out some younger member of our Profession who has the ability and the zeal to prosecute the all-important subject. My attention was especially called to the gentleman whose name you have mentioned at page 143 of your publication of the 5th instant, by two singularly interesting clinical notes which he communicated to me four years ago, and which were published in my Croonian Lectures for 1850. I recently communicated with this gentleman, offering him every assistance if he would devote himself strenuously to the subject which he had already so well illustrated. I wish it to be most clearly understood, therefore, that whatever there may be of fault in this matter is absolutely and entirely *mine*. Whether there be any fault at all I leave as absolutely to the judgment of the Profession and the public when they shall have perused these few observations.

I first come to notice the unfortunate "extract of a letter" to which you have drawn attention. It is a repeated calumny to call it a "circular." A circular it never was, and never was intended to be. A few copies only were printed, and the greater part of these are now on my table. It was intended to be shown or sent to any one in reply to questions, and to save time, explanations, and repeated encomium. It was shown to a Fellow of the College of Physicians, and to a distinguished Professor of Physiology, who uttered no word of disapproval; and I confess that my own faculties are still too dull to detect anything wrong in it. It is a *testimonial*—a well-merited testimonial—and nothing more.

I take much of what you say, doubtless in irony, in sober earnest. I am perfectly satisfied that few of the members or fellows of our Profession are prepared to carry out this most important inquiry.

Many of my patients, when informed of my intention to leave my Profession, have asked me who had most studied the same subject. Many are in the midst of a course of treatment,—many have wished to see me again if I should ever return to London. What was likely to be the train of thought suggested by these circumstances? Many of my professional friends, in whose honour I have the most implicit confidence, suggested that I should take a pupil equal to the important task who might become my successor, not less in my career of investigation than in my practice. I could discover no reason why I should not do so. It was even suggested that I might make a beneficial arrangement with such pupil; but the instant I understood that such an arrangement might be regarded as contrary to the rules of the College of Physicians, I dismissed the idea from my mind at once and for ever.

But I gladly availed myself of the co-operation of a gentleman who had already assisted me by his able communications as a pupil and as a friend. I shall, during my absence, still pursue my investigations. I hope one day to do for tetanus, paralysis agitans, etc., what I have done for epilepsy. If happy in my efforts, I shall communicate the results of my labours to my friend. I may even one day wish to re-enter the field of my labours; and why not?

I believe that one of the surgeons and one of the accoucheurs of Royalty were thus introduced into practice; and I suppose the affectation of the dark ages which made a distinction in rank of the different departments of the healing art is, in 1853, pretty well extinct.

It is a little extraordinary that I should be found in the midst of this fracas. I have been more engaged than many members of the Profession in the pursuit of science—and less, I think, than any in the pursuit of mere gain. I have refused many advantages for conscience' sake, and for the sake of those laws of the College of Physicians which exclude all intermingling with trade. I have done this more than many of the Fellows of that college. What can be a more trading concern than that of the many insurance

offices which trade, in fact, in human life? Who are traders if the directors of such offices are not? Therefore I have oft and always refused to become a director of an insurance office, and consented to accept the office of physician only. Let us at least be consistent.

I could adduce other facts of this kind, but I will not trouble you or your readers further. I will only add, that in these things I have constantly had in view not the letter only, but the very spirit of the rules of the College of Physicians. I would do everything to show any respect for the College except what would be derogatory to myself. It must be remembered, that whenever any licentiate or Fellow, on admission to the College, pronounces the words "Do fidem," that is, to obey the laws, other words are implied in the context, viz., "Habeo fidem," that is, I trust to the officers of the College to do no wrong. Now, Sir, it is proverbial, that in the secrecy of Committees men will do wrong, as they would not dare to do in their individual capacity, and very wrong too—*Verbum sat.*

I have no resource but to act rightly, as in the sight of God and man. This I have done. This I shall continue to do.

I now leave this affair, to wander in the far west and in the far east. I have toiled for my Profession as well as in my Profession, perhaps more than all, and my best wishes for its prosperity and real dignity attend it.—I am, &c.

Grosvenor-square. MARSHALL HALL.

NERVOUS DEAFNESS.
REPLY TO MR. WILDE'S REMARKS.

[To the Editor of the Medical Times and Gazette.]

SIR,—In consequence of my critical review of Mr. Toynbee's Anatomico-pathological Discoveries (see October 16, 1852, of this periodical) Mr. Wilde (see Nov. 20, 1852, of the same) has set forth a sharp criticism on my statement as to the morbid condition of the membrana tympani in cases of nervous deafness. So feeble is the position assumed in that criticism, that my reply may be quite brief.

Mr. Wilde has shown himself in his paper well acquainted with the existence of a second edition of my "Nature and Treatment of Diseases of the Ear," published in 1849; and, being well conversant with the German, he cannot be ignorant of its contents: moreover, he must be aware, that an author is accountable but for the opinions and statements expressed in his latest literary production. This rule, sanctioned by general practice of all times, has been infringed by Mr. Wilde in criticising one single opinion issued in the first edition of my work (1836), but essentially amended in the second edition (1849). The sentence attacked by Mr. Wilde runs thus (page 260 first edition, English translation):—

"In both forms of nervous deafness, I have *almost always* found the membrana tympani white, like paper, and opaque."

That has been amended, as the result of a twelvefold more extended experience, as follows (page 722, second edition, German):—

"In cases of nervous deafness I have *not seldom* found the tympanal membrane white like paper, and opaque."

In illustration of this my opinion there are added 36 cases of nervous deafness (see Nos. 129—164), out of which no more than five (Cases 132, 141, 145, 147, 163) presented this morbid appearance of the tympanal membrane.

Furthermore, Mr. Wilde disapproves my referring this morbid appearance to impaired action of the absorbent vessels, and takes for granted, that the above-mentioned alteration of the membrana tympani previously subjected to inflammatory action, was the consequence of an opaque deposit between its layers. Indeed, I myself attach very small value to theoretical explications of this or any other pathological fact; but, in opposition to Mr. Wilde's belief, I beg my readers to be assured that,—

1. Not one of my cases of nervous deafness whose tympanal membrane appeared white like paper, and opaque, had ever been previously affected by any inflammatory action in this part.

2. This tympanal membrane, white, like paper, and opaque, attending nervous deafness, presents the same concavity at its outer surface as in a perfectly healthy state, while the opacity resulting from inflammatory action never fails to be connected with thickening of its substances, flatness and disappearance of its normal outer concavity.

3. The condition of the tympanal membrane above referred to is always seen joined with complete want of ceruminous secretion, with dryness, and a parchment-like alteration of the meatus auditorius externus, undoubtedly the consequence of impaired action of the vegetative process in the affected organ. Besides the white colour and opacity of the membrana tympani, commonly observed with old people, and the "arcus senilis" (white opacity of the peripherical part of the cornea) observed frequently with people of great age, both being due to impaired vegetative process, I suppose I am warranted in referring, also, the tympanal membrane, white, like paper, and opaque, to the same impairment of the vegetative process, namely, of the absorbent vessels of the parts in question.

I think there may be no necessity for excusing my republishing in this periodical the tabular view of 4000 cases of diseases of the ear, formerly published in a small German paper, most probably not brought before many members of the English Profession.

Far be it from me to deny the great value of observing morbid cases in presence of intelligent medical persons; but Mr. Wilde is, indeed, unjust and inequitable, merely from my not having got the opportunity of doing so, to lay claim to exclusive faithfulness in his own and Mr. Toynbee's recorded appearances presented during life, or exhibited after death.

Painful words like the following—"it is easy to give names to diseases, and to attach numbers thereto"—are fully outweighed by Mr. Wilde himself feeling "bound, in common with all who will examine Dr. Kramer's statistical tables, to award to the zeal, industry, and ingenuity of their author, the amount of credit which they deserve."

In conclusion, I cannot forbear advising Mr. Wilde, in attacking my statements, to lay aside for ever the first edition of my "Diseases of the Ear," and, in apologizing for Mr. Toynbee's opinions, to disprove before all the arguments I have set forth in this periodical (Oct. 16, 1852.) I am, &c.

Berlin. WILLIAM KRAMER, M.D.

MR. HOVELL'S INSTRUMENT FOR UTERINE HÆMORRHAGE.

[To the Editor of the Medical Times and Gazette.]

SIR,—The variety of suggestions which have been made, from time to time, for securing contraction of the uterus, in cases of after flooding, proves that some effectual and simple means is a desideratum. Pressure is most generally adopted, but some repudiate its efficiency altogether.

With all deference to Mr. Harvey's experience, necessarily much more extensive in cases of uterine hæmorrhage than my own, I think that his plan, although thoroughly practical and successful, involves the necessity of severe, and even painful pressure, in order so thoroughly to effect the incarceration of the uterus as to preclude the possibility of its relaxing and giving rise to hæmorrhage.

Mr. Pretty's tourniquet bandage is open to a similar objection. The pressure is unmitigated. One intention of the spring bandage is to imitate, to a certain extent, the manipulating pressure of the hand, which stimulates the uterus to contract more effectually, and with far less force, than that required by the dead-weight impression of a tight bandage enclosing a book, tea-cup, basin, or piece of cork, as variously recommended: again, its pressure is direct against the promontory of the sacrum; it does not, in any degree, cause constriction of the abdomen—its application is very simple.

I think Mr. Harvey will find my truss less bulky than he supposes; so much so that I frequently carry it in my pocket, and have not, hitherto, thought it necessary to make it more portable, which might be easily effected by making the pads movable.

Some cases of this kind are doubtful, not actually flooding, but threatening; under these circumstances—although I cannot too strongly deprecate the evil of leaving a patent incautiously, or too early—I have several times applied the truss, and directed the nurse to remove it in the event of its causing pain, or after the lapse of one or two hours, as the case may be. I have done this, feeling confidence and security in the efficacy of the instrument, and have never been disappointed. In this point of view the truss might be a great boon to a country practitioner.

I am, &c. D. DE BERDT HOVELL.

Five Houses, Clapton.

DR. WARBURG'S TINCTURE.

[To the Editor of the Medical Times and Gazette.]

SIR,—I was much surprised to find by your Paper for January the 29th, that Dr. Warburg had been sent by the Mail Packet Company to administer his notorious tincture to the patients suffering from yellow fever in their steam-ships at Southampton. If you consider the following case (exposing the fallacies of his nostrum) worthy of insertion in your valuable Journal, perhaps you will kindly favour me by doing so. In the early part of the year 1851, a young woman, about twenty years of age, was ad-

mitted, under Dr. Babington, into Lydia Ward, Guy's Hospital, suffering from hepatic obstruction. It appeared from her history that she had been quite well until a few days previous to her admission, when she was somewhat suddenly seized with her present illness. The conjunctivæ as well as the entire surface of the body were of a deep yellow colour; urine like porter in appearance; alvine evacuations clay coloured; in fact, the symptoms were similar to those generally observed in cases of this kind. On Dr. Babington's first visit he was accompanied by Dr. Warburg, who stated that it was exactly the case for the exhibition of his tincture, and confidently predicted that the symptoms would be much relieved, if not altogether removed, in twenty-four hours, and therefore directed that about thirty drops should be given every five or six hours. These were punctually administered. On visiting her the following day, we (*i. e.*, the clinical clerks, for I had the honour of being one of Dr. Babington's clerks at that time,) were not at all surprised to find that the patient was not improved in the least degree; but Dr. Warburg expressed very great astonishment at his want of success, and asserted most positively that it was the first case in which he had known his specific to fail. However, determined to make another trial, he directed that a third part of a bottle (about ninety minims) should be administered as the former, when we were to be convinced of the wonderful efficacy of his great discovery. Need I add, that no better success attended his second effort, for on the succeeding day the patient presented precisely the same appearance and symptoms as on her admission. Recourse was then had to the ordinary treatment pursued in such cases, and she subsequently left the hospital quite well.

After witnessing the effect, or rather the non-effect, of Dr. Warburg's tincture in this case, I feel confident of its result in the cases of yellow fever at Southampton; and I think that the step taken by the Mail Packet Company is very much to be regretted, as it will probably deprive the sufferers of experienced medical aid, for I should imagine that no member of our Profession would act in conjunction with such a man.—I am, &c.

Headcorn, Kent. ROBERT V. SKINNER.

ARM PRESENTATION.

[To the Editor of the Medical Times and Gazette.]

SIR,—Mr. Wiglesworth's further remarks, of Jan. 15, upon my case, which he persists in calling a "shoulder presentation," I have only just seen, a fortnight after the date of their appearance in public. They contain nothing new or important, and therefore are already more than answered in my letter at page 20 of this volume.

Mr. Wiglesworth, while endeavouring to earn a little reputation for acuteness by condemning me of error in some of my statements, observed a degree of courtesy for which I willingly gave credit. But no sooner was it shown that he himself had erred in judgment, than this was cast aside, and he grew angry and idly sarcastic. It cannot be helped. I can neither alter the nature of my reported case, so that Mr. Wiglesworth's views may be brought to bear upon it, nor admire his expedient of picking out an expression here and there, as suits his purpose. The report of the case appeared in the October number of the *London Journal of Medicine*, and it would be unreasonable, as, I believe, it is contrary to rule, to repeat it here. Should any one be curious enough to examine for himself, he will there find, I hope, an "intelligible" account of the matter. Mr. Wiglesworth and I are at issue, not on the mere question of success or singularity of the case, as he pretends, but on that of its very nature; he persisting that it was one of shoulder presentation, in direct contradiction of the terms of the report itself, and in the face of my unqualified assurances that it was not. The hand, and progressively the forearm, presented, and although those useful members were, as usual, connected, or—to employ Mr. Wiglesworth's word, but in a special sense—"complicated" with a shoulder, it was no more a shoulder presentation than a protruding foot would have rendered it one of breech presentation.

Mr. Wiglesworth requests to be informed what was the practice at the earliest times in shoulder presentations, and complains that I have not before done so. With, I am sure, every disposition to oblige, it is neither incumbent upon, nor convenient, for me to gratify him, my time being otherwise fully taken up. He will regret this the less, blest as he is in the possession of two such standard works as the "Byrthe of Man Kynde," and the "Expert Midwife." I am, &c.

Leeds. R. G. MAYNE.

THE NEW MIDWIFERY DEGREE.

[To the Editor of the Medical Times and Gazette.]

SIR,—There is a very excellent letter in the *Medical Times and Gazette*, of February 5th, by Mr. Close, of Manchester, the burden of which seems to be an enumeration of the multifarious obstacles placed in the uphill path of the properly-qualified medical practitioner, placed there, with shame be it spoken, not only by the crushing and elbowing of men who scramble over the fences, or sneak through the palings set up to guard the highway of the Profession, but by the very men who sit at the gate, approve the traveller, receive the toll, and bid him "god-speed" on his journey.

It would be an endless, hopeless task for any man to point out all our grievances; but since Mr. Close has spoken out plainly, with your permission I shall do so also, for something ought to be said on matters he has left untouched. In these days we hear much of Medico-Ethical Societies. I offer them a matter for consideration. I am a country surgeon, residing in a village no great distance from a large town. Other villages are scattered round me, and my town brethren know it. They have good practices, these town surgeons, some of them: but they are greedy men. They keep several assistants at their own houses, and these are qualified. Some they station in villages as outposts and whippers-in. These are not, but they can attend midwifery and that sort of thing, do the work of a union and clubs that ought to belong to poor me, and so forth. Certainly; life in the country is comparatively valueless.

"Their prentice han' they try on man,"

as Burns says Nature did; and the material is so plentiful, what matter if a little should perish in the using.

These "Licentiates in Midwifery" will be the very boys for my town friends; they will have mounted one step on the ladder—an all-sufficient footing, not a doubt of it. "Surgeon-accoucheur" will be their brazen cognomen, and we young practitioners must hide our diminished heads, or "grin and bear it."

This is no fancied evil I'm describing. I suffer from it; perhaps hundreds of other young practitioners do also. Yet some of my town brethren *are* Fellows of the College—the M. has given way to the F., and they carry about them a halo of all that is pure and professional. Their hair "stands on end" at a chemist prescribing; but they have breathed on their rural representatives, and virtue was in the breath. I heartily hope the attention of the younger members of the Profession will be turned to the subject of pseudo-practitioners; but I doubt it. Instances of their mal-practice and abominable presumptive ignorance come frequently under our notice; but, from mistaken good nature, we say nothing; moreover, public credulity in these impostors disgusts us—the conduct of men high in the Profession humiliates us. We plod on as best we may, perhaps once in our career openly declaring *such things ought not to be*, and then resuming the daily duties of

A YOUNG GENERAL PRACTITIONER.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY

Mr. HODGSON, F.R.S., President, in the Chair.

A CASE OF LARGE AXILLARY ANEURISM, IN WHICH THE SUBCLAVIAN ARTERY WAS SUCCESSFULLY TIED.

By BARNARD HOLT, F.R.C.S., Lecturer on Surgery, and Surgeon to the Westminster Hospital.

Robert H——, aged 30, was admitted into the Westminster Hospital, May 23, 1851, with an axillary tumour, apparently fungoid. Five weeks previously he felt slight pain in the right axilla, and detected a small, hard, and apparently glandular swelling. He consulted Mr. James, of Uxbridge, who diagnosed the case to be abscess, and treated it accordingly. After a week, he was admitted into the Uxbridge Union, under the care of Mr. Rayner, who took a similar view of the case. The tumour had now increased, the patient complained of throbbing pain, and he had had two or three distinct rigors. Seven days after admission, the tumour was much enlarged, and the skin discoloured; and, these symptoms having increased, Mr. Rayner, at the solicitation of the patient, punctured the tumour with a lancet, when a small quantity of blood only escaped. A suspicion was now entertained that the case might be one of aneurism; but on consultation, as no further evidence in favour of this view existed, it was considered that the previous opinion was correct, and the treatment was continued. Five weeks after the appearance of the tumour,

profuse hæmorrhage took place, but ceased before Mr. Rayner arrived. He then thought he could detect a bruit de soufflet; and on this being confirmed, the patient was sent to the Westminster Hospital. At this time, the patient presented an exsanguineous, unhealthy, and anxious aspect; tongue clean and moist; skin warm and perspiring; eyes glassy; pulse 96, and hard; appetite bad; bowels moderately regular. The swelling was about the size of an ostrich-egg, nodulated, and communicating a spongy feeling to the touch. No fluid could be detected, but there was the elastic feeling usually accompanying malignant disease. The pain was intense and lancinating. The hand and arm were œdematous, and could not be brought to the side; movement was difficult; no bruit or pulsation could be detected. A grooved needle was introduced, but only a small quantity of grumous blood escaped. Seven days after admission, the tumour was more dense, its elasticity was nearly gone; the arm was more œdematous, and the radial beat more feebly than on the opposite side. A fortnight afterwards the tumour was greatly enlarged, was now uniform and elastic, and an indistinct bruit and pulsation could be detected. On consultation, it was agreed that the tumour was aneurismal. The bruit and pulsation had become more distinct, and it was decided that the operation of tying the subclavian artery should be performed. On the 18th of June, the day previous to the operation, the tumour had increased, the pulsations were uniform and distinct, and a moderately loud bruit could be heard all over the surface; the arm swollen, tense, and painful, widely separated from the side; the clavicle pushed upwards and backwards, so as to describe an obtuse angle with the sternum; the artery could be commanded by pressure above the clavicle. On the 19th, the patient being seated in a chair, the integument was drawn over the clavicle, and an incision made the whole length of, and upon, that bone. The skin being now permitted to resume its original position, the incision, of between four and five inches in length, was situated immediately above the clavicle. The deep cervical fascia was cautiously divided to the same extent. On careful dissection of the cellular tissue, the brachial plexus was exposed. A branch, being mistaken for the artery, was raised on the needle; but as pressure on it did not command the circulation, the artery was again sought for, which was felt feebly beating under the plexus of nerves which lay in front and covered it. A ligature was put round it, and the circulation completely commanded. The patient now suddenly became very faint, and his breathing embarrassed; he was laid on the floor, and water dashed on his face, when he soon recovered. No unfavourable symptoms ensued after the operation. On the 8th of July the ligature came away. At this time the tumour had decreased one-half, and a feeble pulsation could for the first time be detected in the radial artery. A few days afterwards, the tumour was somewhat large, and, as it did not again decrease, the diet was reduced, and ice applied. From that time the tumour gradually diminished. On the 24th of December, the tumour was so far reduced as to admit of his return to the country; he could move his arm nearly as easily as the other, and the œdema had entirely subsided. The author then remarks on the difficulties sometimes experienced in forming a correct diagnosis between fungoid and aneurismal tumours. In the present case the tumour had at first been taken for abscess; and it was not until the hæmorrhage took place that its aneurismal character was suspected. When first seen by the author, the sac was again so distended as to mask the previous signs; and the history and appearance of the tumour favoured the idea of its malignancy, which was, however, contradicted by the subsequent improvement in the health of the patient, and the slow increase in the tumour. The size was remarkable, measuring nine and a-half inches from the clavicle to the centre of the axillary portion of the tumour, and five inches from the arm to the side of the chest. The surrounding structures were materially displaced, and the clavicle elevated, thus deepening the space between the integument and the artery, and apparently offering a serious obstacle to the facility of placing a ligature on it; indeed, when the parts had nearly resumed their normal relation, the cicatrix more resembled that arising from ligature of the carotid, than of the subclavian.

Mr. Bowman considered that the chief point of interest in Mr. Holt's case was the extreme difficulty of the diagnosis when the patient was admitted into the Westminster Hospital. The tumour at that time presented some features of similarity to encephaloid disease, and resembled in many respects a blood tumour, which manifested itself nearly two years ago in a girl who was under the care of Mr. Fergusson, in King's College Hospital. In this patient there was a large mass close to the arm-pit, which was generally considered to be malignant, and therefore beyond the reach of surgical assistance. The tumour, however, became more and more prominent, and at length the skin over it sloughed and gave way, allowing a large mass of laminated and partially decolorised fibrine to be shelled out. The substance thus expelled was carefully examined by the microscope and found to present no evidences of malignancy, but to consist simply of fibrine. The wound closed and the girl left the hospital quite well, the circulation of the arm on the side of the disease being regular and natural. He thought this case was explicable only on the supposition that it was originally a tumour of innocent character, which having, from some cause or other, become the seat of repeated hæmorrhages, either underwent disintegration in its proper structure and was lost in the coagulum, or else was removed by absorption, so that the coagulated blood remained alone to occupy its place.

Dr. Sibson observed, that it was in the highest degree important to the surgeon that the clavicles should be prevented from ascending during the performance of operations on the carotid or subclavian arteries. This movement of the clavicle might be prevented by simply applying a bandage somewhat tightly round the chest, and thus making the respiration altogether diaphragmatic. He had seen this method employed, at his suggestion, by Mr. White, of Nottingham, with complete success, during an operation on the carotid artery, and he was surprised to observe that no congestion of the veins in the neck followed the application of the bandage,—a condition which he imagined would have taken place.

Mr. De Morgan inquired of Mr. Holt whether a microscopic examination was made of the blood which exuded from the tumour when it was punctured. He believed that in similar cases of doubt the assistance of the microscope might enable the surgeon to determine whether the disease were malignant or otherwise.

Mr. Holt regretted to say, that no microscopical examination had been made. He would take the opportunity of remarking, that he thought Dr. Sibson's method would be very useful in cases of carotid aneurism; but in the case which he had submitted to the Society no pressure could have been tolerated.

Dr. Sibson observed, that if the opposite clavicle had been fixed, the result would have been equally attained.

The President expressed his regret that no other gentleman rose to offer any remarks on the interesting case communicated by Mr. Holt. Before, however, the next paper was read, he wished to offer a few observations on the example of axillary aneurism whose particulars had just been related. He had been furnished with an opportunity of seeing the case, and he was also present at the operation. In most examples of axillary aneurism, he thought it would be impossible to employ the ingenious method suggested by Dr. Sibson. This was the third instance he had met with in which it was impossible to diagnose the nature of the tumour before puncturing it. No bruit was audible at first at any spot, not even from the dorsum of the scapula; and he thought the dorsum of the scapula was the best situation in which the stethoscope could be applied to detect a bruit in an axillary aneurism.

ON DEGENERATION OF THE PLACENTA AT THE END OF PREGNANCY.

By ROBERT DRUITT, M.D.

[Communicated by Dr. FERGUSSON.]

The subject of degeneration of the placenta had been already brought under the notice of the Profession by Dr. Robert Barnes; but before the real value of this subject of investigation could be estimated, the author thought the following questions should be answered—viz., first, how far, and under what circumstances, could it be regarded as a normal condition? secondly, how frequently, and to what extent, might it be present without any ill consequences ensuing? The author defined the term "degeneration" to express the loss of those characteristic parts or marks of any given structure which were most intimately connected with its functions. Such a change, Professor Paget had remarked, bore witness rather to a deficiency than to a perversion of nutrition. There was no development of any new organic form, but, instead, a tendency to infiltration with oil corpuscles or with earthy matter. In structures whose existence was shorter than that of the system of which they formed a part, or in organs which had occasional periods of activity, such changes were met with at the termination of those periods; and it might be produced in any organ by depriving it of the exercise of its functions. Thus degeneration was to be looked upon as a part of the natural as well as of the morbid history of the animal economy. Now, the placenta being *par excellence* a temporary organ, might fairly be expected to be prone to degeneration at the close of the term of its office; and this the author believed to be true, and that almost every placenta expelled at the full time exhibited some signs of that change. The fact was notorious, that various deviations from perfect structure were constantly found in placentæ; in favourable cases the fact was passed by as of no consequence;

but in unfavourable cases, the placenta being more closely scrutinised, these appearances had been attributed to inflammation and effusion of lymph. The author confessed to have fallen himself into the error, till the paper of Dr. Barnes revealed the true nature of these alterations; and being soon convinced that degeneration of the placenta was by no means of uncommon occurrence, he determined to institute a more strict inquiry, the result of which was embodied in the present communication. For the sake of a clear definition of the term employed, the author briefly detailed the histological elements of the placental structure, and thus observed that the forms of degeneration commonly seen in the placenta were the earthy and the fatty. The earthy was so common, that he doubted whether any full-grown placenta could be met with that did not exhibit traces of it. These earthy deposits, examined microscopically, were seen as minute transparent crystals within the investing decidual cells of the fœtal villi. This earthy matter was quickly and entirely soluble in acetic acid, with copious effervescence. The fatty degeneration was as common as the earthy, and was generally met with in the same placenta, though not in the same parts, nor in equal degree. It had been most fully and accurately described by Dr. Barnes and Dr. Hassall, and the author added some minute details of the progress of the fatty deposit in the pre-decidual cells, in which it commenced first as single globules, and then aggregated in clusters in the cells. In some cases the oil did not increase in proportion to the degree of degeneration; in fact, neither the oil-globules nor the earthy crystals were to be looked on as more than accidents, and not as constituting the essence of the degeneration; but, whether so or not, the affected tufts became tallowy, ex-sanguine, brittle, and difficult to unravel; whilst in the extreme stage there was produced a white, glistening, translucent, amorphous substance, of gristly consistence, and breaking in all directions into sharp, angular fragments. But in this apparently structureless substance the fœtal vessels might, by careful examination, aided by maceration, be detected cropping out here and there on the broken surfaces. In this extreme degree of degeneration there was very little oil. Acetic acid caused the mass to swell up and become translucent. The author then gave the details of the microscopic examination of thirty placentæ occurring consecutively in his own practice; in each, either fatty or earthy degeneration had taken place. He conceived that the true explanation of these phenomena must be looked for in the general analogies which regulate the growth of temporary organs. The placenta was the nutrient organ of a parasite, which inhabited a parent till it had attained a certain degree of development. Its cells, like other cells in the condition of active growth, had the power of appropriating nourishment from any parts with which they were in contact. It was probable that the size and condition of the placenta bore a strict proportion to the wants of the fœtus and to its powers of assimilation, and that, on the one hand, a placenta of perfect structure showed that the functions of the organ were actively carried on; on the other hand, degeneration testified either that the organ was originally formed on an unnecessarily large scale, or that the fœtus could not appropriate the supplies furnished by the entire organ, or that the work of development being nearly completed, the active employment of the whole organ had become unnecessary, and portions of it fell into decay. The author offered the three following conclusions as the result of his investigations:—1. That incipient degeneration was a normal condition of the placenta at the end of pregnancy. 2. That it arose from partial cessation of the active functions of the organ when the fœtal development was nearly completed. 3. That when it occurred in the earlier months, it probably arose from some antecedent want of nutritive force in the fœtus, or by its death. On the subject of inducing premature labour, on the ground of placental disease, the author summed up his communication in the emphatic words of Wilde:—"Nostrum est, summo studio cavere, ne abortus expediatur vel immo excitetur, sed omni arte potius intendere ut prospera et immunis restituatur graviditas; quippe quâ unâ, duplicis vitæ, lætam spem et sinceram salutem recuperavimus."

Mr. Barlow, while fully admitting the value of the contribution already made by Dr. Barnes to the Society on fatty degeneration of the placenta, could not but perceive that Dr. Druitt's interesting communication supplied some very important matter relative to the degeneration of that organ, as generally viewed. Dr. Barnes had confined himself to its fatty degeneration, but Dr. Druitt had shown how very common was its calcareous decay, and with what frequency earthy and fatty particles were found intermixed. Wherever atrophy prevailed to excess there was a tendency to fatty or earthy degeneration, as was exemplified by the placenta as well as other parts. He quite agreed with the author that much of the placental degeneration which was found at the close of gestation should be called normal. In some few observations which he (Mr. Barlow) had ventured to make on this form of decay, he had observed that, in considering the degeneration of the mature placenta, its full age must be taken into account, for he had kept before him the important subject of definite life, and the wide relation which it held to degeneration in general. He had examined a few mature placentæ, all of which bore out the observations in the paper. Dr. Druitt had also shown him some beautiful specimens of mature placentæ not enough degenerated to have their function damaged, or the life dependent on them injured in any way, but quite enough to show that they were in many parts beginning to decay, according, most probably, to that law whereby it happened that parts having arrived at the fulness of their growth, and the fulfilment of their office, began to atrophy and give signs of incipient death. He had examined the placenta of a woman seven months gone with child on its expulsion; it was very slightly degenerated; the villi were for the most part healthy and full of blood-corpuscles; the child was shrivelled, and died soon after birth. The mother had erysipelas, and was in a state altogether unfavourable for the support of the life contingent on her own. He thought, in this case, that the death of the infant was owing to the changes in the maternal blood, and not to any alteration of the placenta. As to what the author had observed respecting the propriety of producing premature labour in cases where the child was considered to be perishing from suspected fatty degeneration of the placenta, he must beg to express his agreement. Were the child really perishing from atrophy, its chances would not be benefited to any certainty by the proceeding; were it weak simply, and quite viable, it seemed better for it to remain in utero. As to the mother herself, it was clearly most prudent not to interfere.

Dr. Murphy said, the Society were greatly indebted to Dr. Druitt for having brought this interesting subject before them in so valuable a paper. In his opinion, many of the examples of fatty and calcareous degeneration of the placenta were analagous to the same processes in the muscles and arteries of some aged people. There was, however, a species of degeneration of the placenta to which he wished some allusion had been made by the author. He alluded to that form of degeneration which Dr. Simpson had described as resulting from inflammation, and the conditions supervening thereupon. In one of the cases related in Dr. Druitt's paper, he thought the fibrinous effusion which had been mentioned as observable in a small portion of the placenta pointed to the existence of previous inflammation, from which, in all likelihood, the fatty and calcareous degeneration of the placenta in that particular instance resulted. The question which thus sprang up respecting the origin of the degenerative processes in individual cases was, he considered, of the highest importance, because it was probable that a placenta which had degenerated after its inflammation would adhere, in most cases, to the uterus, and be discharged with difficulty after the expulsion of the fœtus. Now, if this connexion could be established, it might be quite possible, by close attention, to make out the presence of inflammation of the placenta during gestation, and both to counteract it by suitable remedies and to be prepared for the circumstances that might arise in consequence at the time of delivery.

Dr. Ogier Ward did not agree with Dr. Druitt in the opinion he advanced respecting the influence exercised by degeneration of the placenta in the fœtus. He believed, with Dr. Tyler Smith, that in most cases the fœtus died first from other causes, and that subsequently the placenta degenerated from having no function to discharge. Calcareous degeneration of the placenta was, according to his experience, more generally met with among the poor than among the rich, and he thought it very likely depended on deficiency of nourishment and other privations to which the poor were exposed. Calcareous change was, he believed, the most common form of degeneration of the placenta, for he had met it more frequently than either the fibrinous or fatty.

Mr. Toynbee observed, that an interesting feature in relation to the subject under discussion was the connexion between fatty and calcareous degenerations. He had noticed, that when these changes affected the ear they took place simultaneously, and appeared independent of each other. They were exhibited, however, in different tissues, and he was disposed to believe that it was the nature of the tissue which determined the species of degeneration rather than any other circumstance. The membrana tympani, for example, would undergo calcareous degeneration, while the small muscles of the ear would become converted into fat.

Mr. Bowman was opposed to the explanation given by Dr. Druitt as to the cause of degeneration of the placenta,—an explanation which seemed to him inconsistent with sound physiology. There was no period during the existence of the placenta in which it could be said to be naturally on the decline, either in structure or

function. He considered it to be an organ which was expelled from the uterus while completely developed and in possession of its most active functions. There was no analogy between the placenta and such organs as the thymus gland or the testicles of birds, which became developed for a temporary purpose, and then gradually atrophied. The placenta was, under natural circumstances, continually increasing, both in extent of structure and activity of function, from the time of its first formation to that of its discharge; and these processes of growth and development were manifestly in correspondence with the increasing wants of the fœtus, which it was unreasonable to suppose required less nourishment at the termination of its intra-uterine life than at any pevious period. t

Mr. Heald considered calcareous degeneration to be the resul of electricity, and said it might be imitated out of the body by the action of some blood on a pair of galvanic plates.

Dr. Barnes said it was impossible for him to listen to the paper which had been read, or the discussion upon it, without the deepest interest. He was gratified to find that the subject which he had brought before the Society had excited the attention which had been bestowed upon it. The points adverted to by Dr. Druitt had not escaped his observation. He could not altogether agree that the remarks of Dr. Druitt were correct. He himself had examined many healthy placentæ of the full period. It was difficult to examine any healthy tissue, not placental only, without detecting the presence of some granules or spherules of oil; and it was expressly stated in his paper, published in the "Medico-Chirurgical Transactions," that some oil was found in the healthy placenta; but the proportion was exceedingly minute, and not of a degree or character to alter the texture of the tissues, or to impede their function. He believed that whatever fatty degeneration might be found in the normal placenta at times was accidental and partial; and that appeared to be confirmed by Dr. Druitt's remark, that he had usually observed it at the margin, where there is commonly a hard, gristly border, the result of effused fibrine. He (Dr. Barnes) believed that either from pressure or other circumstances, the villi in the immediate vicinity of this gristly border might become atrophied and degenerate. But this was accidental, and in no way proved that degeneration to any extent affected the mass of the placenta. He distinctly repeated, that he had carefully examined the villi of the decidual surface of many healthy placentæ, and found them free from any change of the slightest importance, and the decidua also clear, transparent, and free from oil. It was obvious that the placenta was an organ the integrity of which was essential to the child up to the very moment of birth; and he was glad to hear Mr. Bowman confess that opinion. This fact was a strong argument against the conclusion of Dr. Druitt, that fatty degeneration was a normal condition of the placenta towards the termination of pregnancy. He had also paid some attention to calcareous degeneration. He had not observed the crystalline form so frequently as Dr. Druitt had. It was usually amorphous. It seldom appeared to him to affect the villi themselves; and it certainly, except perhaps in very extreme cases, did not interfere with the function of the placenta. He (Dr. Barnes) wished to correct a remark of Mr. Barlow's. If Mr. Barlow would refer to his paper, he would observe that he did not recommend the induction of premature labour as a rule in practice in cases of suspected fatty degeneration of the placenta. He had merely referred to the fact, adverted to by Dr. Tyler Smith, that women had been observed, time after time, to bear dead children in connexion with some or other of diseased placenta, and that in such cases the induction of premature labour had sometimes been the means of saving the child. He had simply remarked, that fatty degeneration was a form of disease similarly liable to recur in successive pregnancies, and that it might become a question whether the induction of labour should not be resorted to. He would not detain the Society by any lengthened remarks in support of the conclusions he had arrived at upon the subject. He had placed in the hands of the Society a second paper illustrated by additional cases; and he believed it would be found that this paper confirmed the statements he had previously made. It would be inexpedient to anticipate the contents of that paper. He preferred to rest his case upon it.

Dr. Druitt had been led to the investigation of these degenerations by repeatedly observing, in one of his cases, that the death of the child was associated with a degenerated condition of the placenta. Notwithstanding much patient inquiry, he had hitherto been unable, from the cases which had occurred to him, to obtain any other explanations respecting the causes of the degenerative changes than those expressed in the paper he had submitted to the Society. He had observed these changes in women of all ages and conditions, but he had been unable to connect them with previous disease, or the habits and circumstances of life. He had compared the placentæ of healthy women with those of women whose systems were tainted with struma or syphilis, but he had been unable to discover any difference in respect to the frequency of degeneration between the two.

The Society adjourned at the usual hour.

PATHOLOGICAL SOCIETY OF LONDON.

Dr. Babington, F.R.S., President, in the Chair.

MALFORMATION OF THE HEART—ABSENCE OF THE VENTRICULAR SEPTUM.

Dr. Peacock made the following report on the specimen exhibited by Dr. Hale at the last meeting of the Society:—"The ventricle is single and presents no appearance of any rudimentary septum. It gives origin to two distinct vessels, the pulmonary artery and the aorta, and is in communication with two auricles. The pulmonary artery is considerably larger than the aorta, having at its origin a circumference of 16 French lines, while the latter measures only 12. The pulmonary valves are of very unequal size, one having a width of 4 lines, a second of 5, and the third of 7. The aortic valves are natural in size and number. The auricular septum is complete, but the foramen ovale is large and very imperfectly closed by the valve. The right and left auricles communicate with the corresponding sides of the single ventricle by valves which have the usual tricuspid and mitral form. There is a small Eustachian valve. The condition of the ductus arteriosus cannot be ascertained." Dr. Peacock stated, that in most of the cases of this kind of malformation which had been recorded, the pulmonary artery, instead of being dilated, as in the present example, was more or less contracted, and sometimes even quite obliterated. The pathological effects of malformations such as these (observed Dr. Peacock) vary considerably according to the condition of the pulmonary orifice. When that opening is much contracted or wholly impervious, cyanosis is the constant result, but when the aperture is unrestricted, the blue discoloration may be partially or wholly absent, as it was in the present instance. Dr. Hale's case corresponded in this respect with others on record, and confirmed the views entertained by Morgagni, and ably advocated by Louis, which referred the production of cyanosis not to intermixture of arterial and venous blood, but to congestion of the venous system. The viability of children suffering from these malformations depended much on the condition of the pulmonary artery, for if that vessel was closed or much contracted, the conformation approached that more aggravated form in which there was only one auricle, one ventricle, and one vessel giving off both the systemic and pulmonary arteries. Few children born with this condition survived long. When, however, the auricles were nearly or completely divided, and there were two distinct vessels, life might be more prolonged.

Dr. Quain read a report from Mr. Fergusson and Mr. Dixon on

THE SPECIMEN OF LOBULAR HYPERTROPHY AND SCIRRHUS OF THE BREAST;

brought before the Society by Mr. Simon at its last meeting. These gentlemen, after a careful examination, both general and microscopical, were enabled to verify completely the opinion of Mr. Simon, that the central substance was a true example of hard cancer, while the external part of the tumour afforded as true an instance of "lobular hypertrophy."

CALCULOUS ABSCESS IN THE PELVIS.

[By Dr. PEACOCK.]

The specimens to illustrate this case consisted of portions of the left kidney and ureter, with a large irregularly shaped calculus, weighing one ounce and a-half. They were removed from the body of a man 36 years of age, who, according to the history given by Dr. Peacock, from notes by Mr. Orton and Mr. Hutchinson, had, for many years, had symptoms of disease in the kidney and bladder, and had passed a calculus in early life. In September last he had a severe attack of diarrhœa, and shortly after this the renal symptoms left him, but he continued to labour under the diarrhœa at intervals, and died at the beginning of last month. Latterly he had chiefly suffered from an œdematous condition of the left leg. On examination, the calculus was found in an abscess situated between the bladder and rectum. This abscess communicated by several large openings with the ureter; the ureter was obliterated at its entrance into the bladder, and was much dilated and diseased above. The kidney was greatly expanded, and its tissue indurated. Where the ureter came in contact with the iliac vessels, the vein was flattened, and its cavity obstructed by pale solid coagula; the kidney had a peculiar, elongated, and

twisted form, and was apparently moulded by the upper part of the ureter and pelvis of the kidney.

ARTIFICIAL TYMPANIC MEMBRANES.

Mr. Toynbee said, that certain experiments and dissections, which he performed during the past year, had convinced him that the guttural orifice of the Eustachian tube was closed, except during deglutition, and he was subsequently led to infer, that, for the function of hearing to be perfectly performed, it was requisite that the tympanum should be a closed cavity, being convinced that, if it were not so, the sonorous undulations would not strike the tympanum with sufficient force. He determined, therefore, to close, entirely by artificial means, the next case of perforated tympanum that presented itself, and did so with great success; and, since that, he had employed an artificial membrane with great benefit in between thirty and forty cases. He (Mr. Toynbee) had used thin layers of vulcanised india-rubber or gutta-percha to construct the artificial membranes; to the centre of one of the surfaces of this membrane he attached a fine wire or stem of some other material, by means of which the septum could be passed down and adjusted. Mr. Toynbee employed this treatment, first in the case of a man aged 43, who had been discharged from the army for deafness. In each membrana tympani was an aperture between one and two lines in diameter, and the mucous membrane of the tympanum was thicker and redder than natural, and discharged freely. Blisters behind the ears and astringent injection were prescribed, and a slight improvement followed. The man's hearing, however, still remained very defective, so that he was unable to follow any useful pursuit. At the commencement of last June, therefore, Mr. Toynbee placed in the left ear a very delicate layer of vulcanised India-rubber. When it was properly adjusted, the patient observed, that he heard more clearly than he had done for years. Ever since that time, this patient had worn the artificial membranes, and, with their aid, he could hear almost as well as any other person; but when they were removed, he could only hear words spoken in a loud voice. The man was then introduced, and the artificial membranes having been removed, the members of the Society had the opportunity of observing the perforate condition of the membrana tympani. After the removal of the membranes, he could not hear unless loudly spoken to, but when he had replaced them, which he did with apparent readiness, his hearing was excellent.

The President asked Mr. Toynbee if he had not met with instances in which individuals retained the power of perfect hearing, although able to expel smoke through the ears.

Mr. Toynbee thought that in those cases the perforation of the tympanum was very slight, and unattended with disease of the mucous membrane, circumstances by which he considered the retention of the power of hearing might be explained.

Dr. Ramsbotham said he was surprised to hear that rendering the tympanum a closed cavity was essential to the faculty of hearing, for he understood that the membrana tympani had been punctured to relieve deafness with success.

Mr. Toynbee remarked, that the operation alluded to by Dr. Ramsbotham had been practised by Sir A. Cooper with success; it was, however, never resorted to by aurists now, both because it was known to be based on erroneous principles, and to have afforded a transitory and by no means uniform relief. He was inclined to believe, that the success of Sir A. Cooper's operations depended, in some instances, on his touching the small bones of the ear, and restoring to them the mobility which they had lost.

Mr. Brooke observed, that the tympanic membranes of his ears had been punctured by Sir A. Cooper when he was quite a child, and the immediate effect was not only restoration of hearing, but the acquirement of a keen and even painful sensibility to loud or harsh sounds; this, however, gradually wore away, and he had ever since retained the perfect faculty of hearing.

A conversation ensued between Mr. Pollock, Mr. Toynbee, and Mr. Brooke respecting the necessity of an aperture for the escape of the air from the tympanum, for the production of sonorous undulations. Mr. Brooke and Mr. Toynbee said that it had been established by the experiments of Müller and other inquirers, that such an aperture was necessary only for the formation of loud sounds, such as were produced by the kettle-drum, but that a small instrument like the ear required no such aperture to enable the undulations of air in the tympanum to take effect.

Dr. Bristowe exhibited a specimen of

ENCEPHALOID CANCER, WITH SECONDARY AFFECTION OF THE NEIGHBOURING LYMPHATIC GLANDS.

The parts were taken from a woman 39 years of age, who was admitted into St. Thomas's Hospital, under Dr. Waller, for cancer of the uterus. During her sojourn in the hospital, portions of brain-like substance, unattended by hæmorrhage, were discharged per vaginam. After death, the body was found emaciated. The cervix uteri had almost entirely disappeared; a ragged, ulcerated surface, looking towards the vagina, was left, except on the left side, from which part a pulpy mass arose, and was prolonged downwards. The ulceration extended into the upper half of the vagina, the tissues composing which had suffered considerably. A cancerous lymphatic gland was found in the left iliac fossa, and some of the lumbar glands betrayed signs of malignant infiltration. An ovoid and lobulated tumour, as large as a cocoa-nut, occupied a position behind the peritoneum in the lumbar and iliac regions, in the right side of the abdomen. On cutting through this mass, it presented an aspect not unlike that of diffused aneurism. On examination, however, it was found that more than one-half consisted of medullary cancer, and that the remainder was made up by a series of cysts of various sizes, filled with coagulated blood. The wall of this cystic portion of the tumour was studded on its inner surface with deposits of cancer of various sizes. The tumour was subdivided into secondary cysts by septa continuous with the internal surface of its wall. The cancerous matter presented the usual characters of encephaloid substance, and enclosed numerous cavities and channels of various sizes, containing coagula. The external iliac vessels were raised from their position, and passed through the anterior portion of the tumour; their coats were healthy, but the vein was much compressed. Clots were found both in the portion of vein included in the tumour and in the vena cava inferior, where it had evidently been carried from the external iliac vein. By microscopic examination, it was seen that the small encephaloid deposits consisted of nucleated cells, varying from 1-500th to 1-2000th of an inch in diameter. The delicate transparent laminæ by which the contiguous coagula were separated consisted apparently altogether of these cells. The larger encephaloid mass exhibited nucleated cells in abundance, together with some granule cells and oily matter. The clots presented their usual characters.

Dr. Markham exhibited specimens of

FIBRINOUS DEPOSITS IN THE SPLEEN AND THORACIC GLANDS.

The diseased organs were taken from a man 30 years of age, who had died under Dr. Sibson's care at St. Mary's Hospital. His health began to fail about a month before his admission, and he began to suffer from sickness, headache, and loss of appetite. He was taken into the hospital about the middle of December, and died six weeks afterwards. While there he presented an anæmic appearance, had a somewhat swollen abdomen, œdematous ankles, and passed albuminous urine. An enlarged and hardened gland existed at the root of the right side of the neck, and, guided by this and other symptoms, Dr. Sibson conjectured that some tumour, probably a malignant one, had formed in the thorax. After death the lymphatic glands in both mediastina were found enlarged, and a hardened mass of them adhered firmly to the first bone of the sternum. These glands were of a whitish yellow colour, and all hard and unyielding alike. The spleen weighed 1 lb. 10 oz., and contained straw-coloured deposits of different shapes and sizes, and a similar deposition was found in the mesenteric glands. The kidneys were enlarged and affected with Bright's disease. All the internal organs were jaundiced, and no bile was present in the gall bladder. Careful microscopic examination revealed no appearances of malignancy in the morbid parts, but showed that the deposits in the spleen and lymphatic glands were formed by effusions of fibrine.

Dr. Peacock and Dr. Bristowe were requested to examine the specimen, and deliver a report to the Society at its next meeting.

Dr. Sibson said, that the case just brought before the Society presented several interesting features during life. The pallor was extreme; the skin waxy, and œdematous; the urine was highly albuminous at first, but varied much afterwards, being on one occasion free from albumen; it was often alkaline, and then the albumen, thrown down by nitric acid, was not so precipitated by heat. The veins of the neck were full, especially the right jugular. There was a large hard gland above the right clavicle. There was dulness on percussion between the scapulæ, especially to the right of the spine, at which region there was blowing respiration. The upper half of the sternum was dull on percussion, and more so to the left than the right of it. The abdomen was full and hard. The circumference round the lower ribs over the liver and spleen was 34 inches, while that just above was 33 inches. The region of the spleen and stomach was unusually full; and over and in front of the seat of the spleen the dulness was extensive, coming forward close to the anterior free edges of the seventh and eighth left costal cartilages. It was inferred from these signs, that, besides

the diseased state of the kidneys, there was a chain of enlarged and hardened glands, probably malignant, occupying the mediastinum, and involving the bronchial glands; that these glands were more extensively affected to the right than the left of the spine, and to the left than to the right of the sternum; and that the spleen was greatly enlarged. In this case the spleen did not come below the free edge of the ribs; it could not, consequently, be felt by the hand, but it was not doubtful that the spleen was enlarged, from the fact that the region of dulness to the left of the stomach was so extensive and came so far forwards, and, which is more important, that the extent of dulness did not lessen on the left side if the patient lay on the right side, which it would have done had it been due to the gravitation of the fluid contents of the stomach or of fluid in the cavity of the peritoneum. No satisfactory examination of the blood was made owing to the want, which is now being supplied, of a microscope in the hospital. In the case of a female formerly under Dr. Sibson's care, a large movable tumour occupied the left side of the abdomen, coming down quite into the left iliac region, so as to give rise to the suspicion of ovarian disease. That it was not so was proved by the existence of intestinal resonance below the free edge of the tumour, and the ease with which it could be moved extensively upwards. It was inferred to be enlarged spleen from the fact, that the dulness extended upwards in the region of the spleen. That patient was brought into the hospital afterwards almost moribund; after death the spleen was found to be greatly enlarged.

Dr. Theophilus Thompson thought that patients in whom these fibrinous deposits in the spleen and lymphatic glands were found, often exhibited a peculiarly cachectic aspect, such as was considered by many practitioners to indicate the existence of malignant disease. He was acquainted with the case of a lady who died from simple hypertrophy of the spleen, and who presented during life this peculiar aspect in so marked a degree, that a confident opinion that she had malignant disease was expressed. This opinion was shown at the *post-mortem* to be unfounded.

RHEUMATIC DISEASE OF BONES.

Mr. Solly exhibited a specimen of that enlargement of the head of the thigh bone, which has been called chronic rheumatic arthritis, in confirmation of the communication of Mr. William Adams, regarding the pathology of this disease. He said that the Society would remember that Mr. William Adams had stated, and brought forward proof, that this disease "did not result from an inflammatory expansion of the osseous tissue, as stated by Rokitansky, and other pathologists, but was produced by a growth of new bone external to the old." Section of the caput femoris showed this very distinctly.

He also exhibited specimens of the same disease, from the patella of another patient. Mr. Solly stated his belief that the disease was a form of fatty degeneration. In both these instances the patients had fatty degeneration of the heart; and he had other cases in private practice which, he feared, were attended with the same visceral disease.

MEDICAL SOCIETY OF LONDON.

Mr. Bishop, F.R.S., President, in the Chair.

Mr. Brown exhibited a specimen of

FIBROUS TUMOUR OF THE UTERUS,

taken from a patient who died of phthisis in St. Mary's Hospital. She had suffered more or less from the tumour for two years, and during the last fourteen months had been subject to retention of urine, which became so annoying, that it was determined to remove a portion of the tumour, which projected through the os uteri. This was done with relief to the symptoms, and the parts healed rapidly; but, a few weeks after, chest symptoms set in, and she died, having many cavities in both lungs. He also exhibited the perinæum of a patient who had been operated on for ruptnre of that part, where the perinæum was found perfectly sound and strong, the operation having completely succeeded. The patient died six weeks after from phthisis.

EXTRAORDINARY SUBSTANCES IN THE URINE.

Mr. Charles Clark exhibited some extraordinary and remarkable bodies which had been passed with the urine of a patient of his, a young married woman, about 24 years of age, and now about seven months advanced in her second pregnancy. She stated that she had felt for some time past a dull, aching pain and tenderness in the region of the left kidney; but that on Wednesday, the 2nd inst., it increased in severity, and appeared to shift to the front of her left thigh, and shoot up from that through the left iliac and lumbar regions to the back; that it made her excessively sick; and that she had suffered intense agony from that time until between eleven and twelve o'clock on Thursday night, when those singular bodies came away in her urine, after which she felt relieved, but was very much exhausted; her symptoms, in fact, were similar to those produced by the passage of a calculus through the ureter. Six or seven of those bodies had been voided on the present occasion; and she stated that the stream was interrupted in its flow as they made their exit from the bladder, some of them being evidently broken and crushed in their passage. He had found, in the urine passed afterwards, their remains in small pieces. The bodies themselves, it would be seen upon examination, were about the density and consistence of a boiled pea or bean, and, although differing in size and shape from each other, were all larger than peas, some being roundish, others flattened, and of an irregular or triangular form. They appeared to consist of a smooth dark-brown investing tunic, and a brownish granular pulp. Altogether they were singular substances to be passed in the urine; and, although he had been in nearly all parts of the world, he had never seen anything like them before, except some which she had voided in a former attack. This had occurred in Nov., 1850, and at the time of the attack, being called in, he found her lying on the bed, pale, and vomiting, and having, a short time previously, whilst the nurse was in the room, passed urine containing about eighteen or twenty of those substances; they, however, differed from the present in being rather smaller, rounder, and of a firmer consistence, and greenish colour. She was then unmarried, and stated, that although this was the first time she had noticed those substances in her water, yet, for several years, she had at intervals suffered somewhat similar paroxysms of pain, but of a milder nature, and the last, she says, has been the most severe of all, which may perhaps be accounted for by the larger size of the bodies, and her pregnant condition. At one of the meetings of the Pathological Society, in January 1851, he had exhibited those passed in the former attack, but then, as now, the greatest diversity of opinion existed as to their real nature. Some compared them to lupin-seeds, others to rabbit's-dung, whilst he himself thought with many they looked more like large capers; no one, however, could tell exactly what they were. They were examined chemically and microscopically by Dr. Bence Jones, Mr. Quekett, Dr. Quain, Dr. Lankester, and Mr. Medlock, of the College of Chemistry, etc.; each of those gentlemen differed in their opinion, and failed to determine what they actually were. Some, who could do nothing else, jeered and laughed, and thought it must be some clever trick, but, although he had no means of disproving their assertions at that time, he endeavoured to show them the utter impossibility of any girl being able to procure substances which had baffled the skill of all the members of a learned society, and of all who had seen them, even to say what they were. This second attack, however, occurring above two years afterwards, resembling the former in all essential particulars, yet differing sufficiently, and in such a manner, as to the size, shape, and colour of the bodies themselves, that no artificial means known could have ever produced it, was alone enough to demonstrate the absurdity of this view. Without pretending himself to determine the exact nature of those singular bodies, his confident opinion, from all he knew of the history of the case, was, that they were some peculiar morbid product of the kidney, hitherto unknown, which, if thoroughly understood, might ultimately lead to a more lucid view of kidney pathology, beneficial to science and humanity. In this idea he was sustained by the opinion of Mr. Quekett, who had once seen somewhat similar bodies in cysts in a kidney, and who, after a diligent microscopic and careful examination, considered them as decidedly of this nature. Having a high opinion of his friend's (Dr. Hassall's) abilities in this department, he had submitted some of the present bodies for his examination, but had not yet received his report; he hoped, however, at some future day, to be able to lay before the Society some further researches into the nature of those interesting substances, which, at all events, tended to show that, notwithstanding the wonderful progress of science in late years, there still remained something more in nature than was dreamt of in our philosophy.

Mr. B. W. Richardson read the second part of his paper on

THE FIBRINOUS CONSTITUENT OF THE BLOOD IN RELATION TO DISEASE.

The author commenced by re-stating some of the views which he had previously announced as to the formation of fibrinous connexions in the heart and blood-vessels during life, laying particular stress on the opinion, that in many of those diseases which are known to be attended with an abnormal amount of fibrine in the blood, and which terminate in what is called "the sinking state,"

the mere formation of a fibrinous clot in the circulating system is often the chief and only cause of the sinking symptoms. By reference to numerous cases, he proved that fibrinous concretions were capable of being formed whilst the processes of life were going on, and then passed on to consider the question, What is the source of a fibrinous concretion; is it an exudation from the inner membrane of the vascular machinery, or is it a direct deposit from the blood? The discussion of this question involved many points of argument, the final answer being, that fibrinous concretions of large size are never the absolute result of an exudation from the lining membrane, and that they are, therefore, direct and true deposits from the blood. Under the next head the author spoke of fibrine as it exists in the blood, and on the chemical nature of a fibrinous concretion? There could be no doubt that fibrine existed in the blood as *bona fide* fibrine, he said; and he introduced a variety of arguments in opposition to the opinion of Mulder and Horn on this subject. Fibrinous masses removed from the body after death varied in chemical properties; sometimes they were simple fibrine, at other times the fibrine was combined with the binoxides and tritoxides of protein. "The cause of fibrinous deposits during life" now came under view. It was necessary, in entering on this inquiry, to consider what were the agencies which prevented the coagulation of fibrine during life? Several theories had been proposed in reply to this question? The nervous influence had been assigned as the cause of the fluidity of fibrine in the circulating blood by some writers, the vital principle by others, and the solvent power of the blood by a third class. The two first hypotheses were untenable altogether, inasmuch as they were removed from the influence of the reasoning faculties; the last (a theory) was incorrect in fact. The author had tried the influence of saline solutions on fibrine in the most careful manner, and had found that all saline substances, when perfect in the matter of chemical combination, had no solvent power over fibrine. He believed that the discrepancies which were to be found amongst writers on this matter had arisen from the circumstance, that different experimentalists had employed salts varying slightly in their chemical nature. The one, employing a salt containing a little excess of acid or of alkali, had found fibrine partially soluble in a solution of that salt; whilst another, employing a perfectly neutral salt, had found fibrine insoluble in a solution of it. The author himself was of opinion, that, in normal conditions of the blood, the fibrine was in a mere state of suspension; and that the agents requisite to secure this suspension were a proper amount of motion, a proper degree of temperature, and the continual and rapid development of the three processes,—reproduction, dissolution, and elimination. A combination of simple, and yet striking evidences, added peculiar force to this supposition. Thus, the idea of its suspension in the blood was quite in accordance with the ultimate application of fibrine; being suspended merely, it entered the more readily into the composition of muscle, undergoing, in fact, a mere process of deposition. Suspension, moreover, implied removal from chemical influences and stability in the matter of quantity,—a property which fibrine really possessed. But the most striking proof was the fact, that fibrine in the circulating blood obeyed the same laws as did other dense fluids when mechanically suspended in liquids lighter than themselves. Thus, if the motion of the blood was arrested in any part of the vascular system, as by passing through a dilated artery, over a roughened surface, or past an obstructing barrier, the result was retardation of the current, and a deposit of fibrine consequent on the retardation. In normal states, then, fibrine was merely suspended in the blood, and existed there in a certain proportion. But, in other states, it underwent various changes; it might be diminished in quantity, or be almost wanting altogether; or, secondly, it might be increased in quantity; so increased that its mechanical suspension was rendered impossible, and then there was nothing for it, but that the superfluous portion obey the laws which lead to deposition, and become formed at some favouring point into a fibrinous concretion. But why should increase of fibrine take place? some one might inquire. This question was most important, and in answering it the author would direct the attention of the Society to one or two facts with reference to the formation of fibrine. There could now be no doubt that the presence of oxygen in a certain proportion in the body, and the presence of a moderate degree of temperature, were both necessary to secure the due formation of fibrine. Dr. Gairdner had shown that if an animal were made to breathe pure oxygen for a little time, the fibrine of its blood was increased in amount. He (Mr. Richardson) had carried Dr. Gairdner's experiment further, and had found that if an animal were made to breathe for a great length of time an atmosphere containing an excess of oxygen it sank and died at last, its heart loaded almost to bursting, with fibrinous concretions. [Some fine specimens of fibrinous concretions, which had been taken from the heart of a young cat killed by this process, were at this moment handed to the President.] Thus, then, the mere inhalation of a super-oxidized atmosphere was sufficient to produce an overplus of fibrine. The author was not yet certain whether a condition of atmosphere capable of giving rise to such results ever existed; the subject required further investigation. There were other circumstances capable of causing the increase in question; 1st. Fibrine might be relatively increased from deficiency of some of the other blood constituents. 2nd. It was evident that if respiration could be rendered too quick, a larger amount of blood than was normal would be exposed to the atmospheric influence, and then would the fibrine be increased. This was, however, rarely a primary condition, and there remained, the speaker opined, a much more common cause for excessive oxidation of the blood in general, and of fibrine in particular. The mention of this idea led him (the author) to introduce incidentally a new theory as to the cause of inflammatory fever and inflammation. It was a law in the animal economy, that all the elements which entered into its composition should pass off from the body by the various eliminatory processes, just in proportion to their introduction into, and distribution through, the body: thus oxygen, carbon, hydrogen, nitrogen, were, in health, ever being eliminated by the skin, by the lungs, by the kidneys, and so on. Now, if from any external physical cause one or other of these eliminatory functions were arrested, the function of the skin say, the results were these:—Either some other eliminating organ performed additional duty until balance was restored, and the system saved, or else the suppressed elements, viz., the grand supporter of combustion, oxygen, and the combustible bodies, hydrogen and carbon, were carried a second time round the system, were reburned, and made to go through a second series of metamorphic changes, thus giving rise, in the first instance, to that heated, excited state of system called inflammatory fever, producing an abnormal increase in the fibrine, the salts, and some other of the blood-constituents, and eventually leading, if a counter-agent were not forthcoming, to the concentration of this super-activity in some favouring structure or organ, and to the process called inflammation—a process which is, in fact, nothing more than the too rapid development in some special organ of the three successive acts—reproduction, dissolution, and elimination. From these readings of the subject, it would easily be seen, the author thought, how it was that superfibrination of the blood attended inflammatory diseases; why fibrine exuded from serous membranes in some such diseases; and why it was deposited in masses in the circulating system. He was particularly anxious to dwell on the opinion that suppression of one or other of the eliminatory processes gave rise to the results he had described, and he illustrated the question by the analogical observation, that the system, under the circumstances named, was made for the time "to consume its own smoke," an act quite incompatible with health. Mr. Richardson, at this point, proceeded to show the practical nature of the subject he had chosen; he confined his attention to the effects of fibrinous deposits—these deposits might take place in any part of the circulating machinery, and the symptoms they produced varied consequently; forming in the heart, they produce their special effects in at least five different ways. 1st. They may be developed in the course of almost any acute inflammatory complaint. 2nd. They may be developed suddenly, and produce the most alarming symptoms, the patient having shown but few previous indications of acute disease. 3rd. They may give rise to symptoms peculiar to themselves, throughout long periods of time, no other disease being present. 4th. They may give rise to sudden death, without having previously produced any special symptoms. 5th. They may follow in the course of some exhausting diseases, and in a secondary manner hasten a fatal termination. After the statement of these general rules, a minute description of the various symptoms which fibrinous concretions produce was given, and at the conclusion of the paper a few illustrative pathological specimens were shown, from one of which it was demonstrated that these concretions, when occurring in arteries, are cylindrical like the vessel itself.

A very interesting discussion arose, which, we regret to say, the pressure of other matter prevents us from publishing. The majority of speakers, however, seemed inclined to believe that fibrine was *really* dissolved, and not merely suspended in the blood, and that, although clots might undoubtedly form in the heart and great vessels during life, yet that such occurrences were met with almost solely in individuals perishing slowly from exhausting disease, in whom the blood, like the solid structures of the body, was, by its coagulation in living cavities, exhibiting tokens of its own departing vitality. It was at the same time acknowledged that clots occasionally form during life in the cardiac cavities, or in the pulmonary

artery, and that clots so formed would produce death, and that, too, with great rapidity. The prevailing opinion, however, appeared to be that such cases were by no means so general as Mr. Richardson was led to suppose, and it was believed that in some instances that gentleman had mistaken cadaveric coagula for clots which had been formed during life.

MEDICAL NEWS.

Royal College of Surgeons.—The following members of the College, having undergone the necessary examinations, were admitted Licentiates in Midwifery, at the meeting of the Board, on the 9th inst:—

Cornish, William Robert, Cambridge-street, Pimlico.
Harle, Thomas William, Bishops Stortford.
Lawson, George, Forest-hill, Sydenham.
Nicolas, Thomas, Battersea.
Robinson, Alexander Harpur, Fintona, Ireland.
Stillman, William, Birmingham.

APPOINTMENTS.

Naval.—Surgeon Robert Willcox, (1851,) from the Coast Guard service, to the Spitfire, paddle-wheel steam-vessel, stationed at Malta. Surgeon William J. Gruggen, M.D., (1850,) to the Espiègle, 12, at Sheerness.

Military.—12th Regiment of Foot: Assistant-Surgeon Robert Villiers George, M.D., from the Staff, to be Surgeon, vice Duncan, deceased. Hospital Staff: Thomas Partridge, gent., to be Assistant-Surgeon to the Forces.

St. George's Hospital.—Henry Charles Johnson, Esq., was elected Surgeon to this hospital on the 4th inst.; and George Pollock, Esq., Assistant-Surgeon on the same occasion.

Wilts County Asylum.—Mr. G. F. Naylor, M.R.C.S., late House-Surgeon to the Wakefield Asylum, has been appointed Assistant-Superintendent to the Wilts County Asylum, vice Dr. Foote, appointed Medical Superintendent to the Norfolk Lunatic Asylum. We understand that there were upwards of thirty candidates.

VACANCIES.

Hospital, Dispensary, and Infirmary Appointments.—The vacancy in the office of Physician to the London Hospital, through the death of Dr. Pereira, will be declared in a few days. There will also be a vacancy at the Small-pox Hospital, owing to the decease of Dr. George Gregory. At the Western Dispensary, (late in Charles-street, Parliament-street, now in temporary premises at 59, Tothill-street,) there is a vacancy for a physician. Gentlemen proposing to become candidates must signify their intention in writing to the Committee on or before the forenoon of Monday, the 14th inst., and must attend at the Dispensary-house the same evening at seven o'clock. An apothecary and secretary is wanted at the Chelsea, Montpelier, and Belgrave Dispensary, 41, Sloane-square. The salary will be 95*l.* per annum, with an allowance of 20*l.* a year for coals, candles, etc. The election is fixed for the 24th inst.

Essex and Colchester Hospital.—The office of House-Surgeon and Apothecary to the above Institution is vacant; salary 80*l*, with board and lodging in the hospital. Candidates to apply on or before Feb. 24.

University of St. Andrews.—The next examination for the degree of Doctor of Medicine is to commence on Wednesday, May 4.

Mr. Paget.—It is with extreme regret we learn this gentleman is disabled from discharging his hospital duties by an attack of pneumonia.

The French Academy.—Dr. Conneau, the first physician to the Emperor, has declined to avail himself of the right to occupy (in virtue of his office) the President's chair of the French Academy. This gentleman formerly practised in Foley-place, London.

Manchester Infirmary.—Mr. Cobden "bet" 10,000*l.* against 1s. a week subscription to the Manchester Infirmary, that England would not suffer from even an attempted invasion. General Brotherton took up the challenge, and forthwith paid in a donation of 5*l.* and the yearly subscription in advance. The General now proposes that Mr. Cobden should enter into his bond to pay over to the above Institution the 10,000*l.*, in the event of an invasion, or an attempt at it. Much as we should rejoice in such an accession to their funds, we trust that the Manchester Infirmary will continue loyal lieges, and not attempt to bring about an event so devoutly to be deprecated.

The Lettsomian Lectures.—The subject of Dr. Murphy's Lettsomian Lectures, in connexion with the Medical Society of London, to commence the 9th of March, is "Parturition, as Illustrating the Importance of a Competent Education in the Practice of Midwifery."

Yellow Fever at Barbadoes.—The number of admissions into the military hospitals at Barbadoes, and the deaths of non-commissioned officers and privates, between Sept. 4, 1852, and Jan. 14, 1853, are as follow (all the cases being yellow fever):—Admitted, 281; died, 50; admissions into hospital, and deaths of officers and men of H.M.S. Dauntless:—

	Admissions.	Deaths.
Officers	22	15
Men	136	64
	158	79

On the 14th of January, there were 10 mild cases of yellow fever among the soldiers at Barbadoes, and 22 of the Dauntless. No admission from her for six days.

The Yellow Fever.—The accounts brought by La Plata steamer from the West Indies clearly show that the yellow fever has nearly spent itself. The cases which have most recently occurred are of a sporadic character, having no traceable origin. If the disease was still existing in all its primitive virulence, La Plata would, no doubt, have brought it to Southampton, on account of the rapidity of her voyage from St. Thomas's, which was performed in fourteen days. La Plata was the first ship that had the yellow fever on board of her during her homeward voyage, and the first to bring a clean bill of health after the fever had abated. During the continuance of the disease five of the homeward-bound West India packets have been infected with it. There have died on board the West India Company's steamers of yellow fever about 150 persons. There has been no calamity in the West Indies such as the yellow fever has been for the last thirty-seven years. It is hoped that the next steamer will bring home accounts that the fever has ceased to exist.

The Endemic at Croydon.—A singular coincidence has been noticed at Croydon in respect to the endemic fever so lately prevalent in that town and an ancient prophecy, which says, that "when the Bourne rises, the people of Croydon may look out for death and pestilence." The Bourne is a spring in Marden Park, a few miles from the town, and is generally quiescent, but this year it has risen higher than it has ever been known to do, and has flooded the country to a great extent.

A poor woman, named Murray, 57 years of age, died lately in the Hull workhouse from the effects of an overdose of opium, of which drug she was an habitual partaker.

Poisoned Confectionery.—An inquest has been held at Ratcliffe, on the body of a child, six months old, deceased after violent vomiting and purging, caused by sucking a composition ornament, representing Napoleon, sold by a confectioner. The figure was painted in various colours, and the medical evidence was to the effect that the colouring material was "Scheele's green," the child dying from inflammation of the stomach and intestines, the result of poison. The jury returned a verdict to that effect, appending to it a censure on the vendor of the poisonous article, and requesting the coroner to write to him, and caution him respecting any such future sales. From the statements made at the inquest we cannot be certain whether the article was intended as ornamental (?) or for eating. The mother of the deceased called it "a penny Napoleon, made of sweetstuff." The public at large, confectioners of course included, have been so often cautioned as to the danger of using these poisonous paints in their trade, that in future cases of the kind the jury would, in our opinion, be justified in returning a verdict of manslaughter.

Mortality Notabilia.—Change of temperature has produced a great increase in the mortality. The present Return shows that the deaths in London, which scarcely exceeded 1000 in any of the four weeks of January, rose in the week that ended 5th February to 1220. The mean weekly temperature in December of last year was about 48°, in the two following weeks of January it was 45°, it then fell to 41·9°, and in the last two weeks it declined to 37·7° and 36·5°. On Tuesday last week the mean temperature was only 31·6°. In the ten corresponding weeks of the years 1843-52 the average number of deaths was 1058, which, if raised in proportion to increase of population, would give a mortality of 1164 for last week. Hence it appears, that the mortality, which for many weeks has been below the estimated

amount, now exceeds it. The increase arises chiefly from diseases of the respiratory organs, (principally bronchitis and pneumonia,) which, having been fatal in the two preceding weeks in 171 and 199 cases, have now risen to 250. Phthisis in the same periods carried off 134, 138, and 151 persons; and 49, 40, and 64 children died of hooping-cough. Mr. Joseph, Registrar of the Rectory sub-district, Marylebone, makes the following observations:—"The Return for the past week will probably show a large increase in the number of deaths; at all events there has been an increase so far as my district is concerned. The deaths in Marylebone workhouse during the winter have averaged from 7 to 10 weekly,—a low rate in comparison of the deaths of former years. This week, however, has produced 24, and the majority of these were from diseases of the respiratory organs, clearly showing that the recent sudden and severe alternations of temperature have proved especially disastrous to persons suffering from such diseases. These deaths have been at all ages, from the infant of 7 days to the old man of 90. In the wards where these cases have been treated, warmth as well as ventilation has been especially cared for." In the sub-district 40 deaths were registered in the week. Mr. Rixon, the Registrar of the sub-district of Woolwich Arsenal, says:—"Between the 19th and 24th January inclusive 6 deaths occurred in the Royal Ordnance Hospital. I do not remember that so great a mortality ever occurred before in a single week amongst the military since the commencement of the registration; 3 or 4 deaths have taken place in a week, but the number seldom exceeds 4 or 5 in a month."

Meteorology.—At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·782 inches; the mean daily reading on Monday and Tuesday was above 30 inches. The mean temperature of the week was 36·5°, which is 1·3° below the average of the same week in 38 years. The mean daily temperature fell from 39·1° on Sunday to 31·6° on Tuesday, or 6·1° below the average of the same day; and it continued, though not to the same extent, below the average during the rest of the week.

DEATHS *in the Metropolis for the week ending Saturday, February* 5, 1853.

Causes of Death.	Feb. 5. 0	15	60	All Ages.	Sum of Ten Weeks.
All Causes	550	391	278	1220	10577
Specified Causes	549	390	278	1218	10518
1. Zymotic (or Epidemic, Endemic, and Contagious) Diseases ...	174	43	14	231	2038
Sporadic Diseases:					
2. Dropsy, Cancer, and other Diseases of uncertain or variable seat ...	5	25	17	47	511
3. Tubercular Diseases	63	137	8	208	1863
4. Diseases of the Brain, Spinal Marrow, Nerves, and Senses ...	69	25	40	135	1270
5. Diseases of the Heart and Blood-vessels	3	28	12	43	364
6. Diseases of the Lungs and of the other Organs of Respiration ...	105	71	74	250	2133
7. Diseases of the Stomach, Liver, and other Organs of Digestion...	39	27	11	77	626
8. Diseases of the Kidneys, etc. ...	...	6	9	15	88
9. Childbirth, Diseases of the Uterus	...	8	...	8	97
10. Rheumatism, Diseases of the Bones, Joints, etc.	5	5	3	13	73
11. Diseases of the Skin, Cellular Tissue, etc.	1	...	...	1	13
12. Malformations	...	...	...	...	43
13. Premature Birth and Debility ...	44	...	...	44	230
14. Atrophy	28	...	1	29	186
15. Age	...	...	77	77	597
16. Sudden	1	...	6	7	102
17. Violence, Privation, Cold, and Intemperance	12	15	6	33	284
Causes not Specified	1	1	...	2	59

BOOKS RECEIVED.

Results of Separate Confinement at Pentonville Prison. By John T. Burt B.A.

Spurgin's Lectures on Materia Medica.

Christophers on Syphilis.

Contributions to Obstetric Pathology and Practice. By Dr. J. Y. Simpson.

TO CORRESPONDENTS.

Mr. Pinder, District Surgeon to the Clitheroe Union, has sent us the following case for publication:—A female inmate of a union workhouse, aged about fifty, was eight years ago attacked with paralysis, whereby she was totally deprived of power in the upper extremities, and partially so in the lower: since then she has become a resident in the workhouse. Three years afterwards, during great excitement, occasioned by a violent fit of passion, she suddenly became dumb, which probably arose from a second attack of paralysis; from that time she has uniformly enjoyed good health, but never recovered her speech, until the present, when, to the surprise of herself and those about her, she regained, as suddenly as she had lost, the power of speaking, and can now articulate her words as well as ever without any effort more than ordinary.

An esteemed Correspondent writes thus:—"I do trust you will not flag in your efforts to write down that detestable Midwifery Examination at the College of Surgeons. Surely we have to work hard enough for our bread and cheese, without another mongrel race being sent amongst us to contend for it. The medical men near here are, as usual, too apathetic to care for their own interests; but I am trying to get them to petition the College to "mend their misspent moments past." Surely some of them in Lincoln's-inn-fields have courage enough to look their own folly in the face, and to cease from it.

It would serve no good purpose to print the whole of Mr. Borham's letter upon the new Midwifery Examination at the College of Surgeons. As a gentleman who has passed that examination, *as well as that for the Diploma*, we give due weight to his observations; but, after all, he agrees with ourselves and with ninety-nine out of every hundred of those who have written to us, or with whom we have conversed, as to the obnoxious character of the 5th clause in the by-laws. Mr. Borham says, "The fifth clause was an evasion on the part of the Council, and it would have been much more to the point if they had endeavoured to amend the Act (!) when they found a flaw in it, than to have inserted the obnoxious clause."

Dr. E. G. Crooke.—We are compelled, from the great press of matter demanding insertion in our columns, to decline your interesting communication.

Selaw.—There is no such book published, so far as we know, as that you require. Mr. Tennant, mineralogist, of the Strand, can, however, give you every information on the subject.

J. P., Glasgow.—We know of no better work on the subject referred to than Taylor's "Manual of Medical Jurisprudence."

A Fellow of the Royal Medico-Chirurgical Society.—No good would arise from the publication of your letter; as, although it contains much that is true, yet your statements are highly coloured.

L. A. C.—Consult the last edition of Dr. Pereira's work on Materia Medica. The Spiritus Ætheris Compositus of the present Pharmacopœia is identical with the Spiritus Ætheris Sulphurici Compositus of the Pharmacopœia of 1836.

A Correspondent informs us that numerous experiments have recently been made at Geneva as to the possibility of the electric light being used for the purpose of public illumination. On one occasion, when it was tried in the streets of Geneva, on a very rainy night, the light, when concentrated by means of a small concave mirror, was found to be equal to three hundred large gas jets at the least; and print could be easily read by it at a distance of one hundred yards, notwithstanding the rain. Further investigations are, however, to be made.

B. L.—It is decidedly illegal to hold an inquest on a Sunday.

A. O'Neill, Esq.—We have received the account of the Poor-law inquiry at Guildford, but it has arrived too late for insertion this week.

M.P.—The London Fever Hospital is situated in the Liverpool-road, Islington. All persons labouring under any form of fever (small-pox excepted) are admissible, if above five years of age. The domestic servants of governors are admitted without fee; but the rules state, that a donation of two guineas is required from non-subscribers with each servant.

An Apprentice.—The Summer Session will begin about the 1st of May. We cannot recommend any particular school.

A General Practitioner, Sheffield.—The order from the coroner to make a *post mortem* examination, includes a chemical analysis of the contents of the stomach, if such be thought necessary, as well as an analysis of any other fluid or substance suspected to have given rise to the death of the deceased. There is no separate fee allowed for such analysis, as it is considered to be a part of the autopsy.

X. X.—Apply to the Pharmaceutical Society, Bloomsbury-square.

P. D.—The cases can certainly be returned as successful under the Vaccination Act.

COMMUNICATIONS have been received from—

W. H. Borham, Esq., Cambridge-terrace, Hyde-park; Thos. Winnson, Esq.; H Graamshaw, Esq., Tettenhall, Staffordshire; B. Welton, Esq., Bridewell Hospital; Dr. F. H. Ramsbotham, Portman-square, and the London Hospital; Dr. Armstrong Todd, Manchester. D De Berdt Hovell, Esq., Clapton; Q. E. D.; Dr. Marshall Hall, Grosvenor-street; A Young General Practitioner; R. V. Skinner, Esq., Headcorn, Kent; Dr. W. L. Langley, Athlone Barracks; A. O'Neill, Esq., Guildford; J. P., Glasgow; Embryo; M.D.; Dr. Spencer Thomson, Burton-upon-Trent; D. L., Derwent Bank.

ORIGINAL LECTURES.

A COURSE OF LECTURES ON ORGANIC CHEMISTRY,

DELIVERED IN THE

Laboratory of the Royal Institution of Great Britain.

By DR. A. W. HOFMANN, F.R.S,
Professor at the Royal College of Chemistry.

Lecture II.

Gentlemen,—If we glance at the vast number of compounds which the element carbon forms with hydrogen or with hydrogen and oxygen, or with the latter two elements and nitrogen—a number which has been rapidly multiplied during the last twenty years by the united efforts of so many cultivators of this branch of science—if we consider, moreover, that, so far as we can foresee, this number is capable of being increased—I might almost say *ad infinitum*—the mind seeks anxiously for some thread which may serve as a guide through the intricacies of this labyrinth. The first thing that strikes us is the necessity of a simple classification of these numerous compounds.

When we treat of inorganic chemistry, divisions and subdivisions of the subject present themselves very naturally in the diversity of the components of the ordinary mineral compounds. This mode of classification is, however, inapplicable in organic chemistry, (I may henceforth be allowed to use the term "organic" for representing that class of compounds which I have endeavoured to delineate in my last lecture,) inasmuch as in the composition of organic substances but a very limited number of elements is involved. Several attempts have been made to classify organic substances according to other principles, varying with the position of this science at different periods. At one time chemists were satisfied to group the substances according to their origin, and hence the subdivision, very frequently adopted even at present, of organic chemistry into vegetable and animal chemistry. You observe that this classification rests upon the arrangement of natural history. The compounds derived from the vegetable or animal kingdom were again roughly grouped according to their most salient chemical characters; for example, as acids, bases, and indifferent substances. This mode of classification possessed undoubted advantages at the time it was proposed; it formed a necessary step in the upward progress of chemical science; but it became more and more inadmissible in proportion to the increase of the sources of organic compounds and to the number of substances derivable alike from the animal and vegetable kingdoms. Moreover, in the same measure as organic compounds increased, acids, indifferent substances, and bases began to graduate so imperceptibly into each other, that in a great many cases it became doubtful under which of these three heads a given compound ought to be placed.

All attempts at classification which are at present being made (I say attempts, because the time for a definite and lasting system has scarcely come) are based upon another principle, which again serves to contradistinguish organic from inorganic compounds. While in inorganic chemistry it is, as was stated, the *quality* of the elements which assists us in synoptically arranging the mineral substances belonging to this department of the science, it is in organic chemistry the *quantity* of the few elements producing so vast a number of compounds which forms the basis of classification. It is not my intention to enter more fully into the subject of classification at present; in order to do this successfully, it is necessary that a certain amount of material should be at our disposal, that we should be already acquainted with a certain number of organic compounds. The object of these brief remarks is to direct your attention, even at this early period, to the interest belonging to the quantitative relations of organic bodies, and to the importance of the methods of ascertaining these relations with facility and precision.

In this and in the next lecture I intend to describe to you briefly the methods which are at present used for determining the composition of organic substances. It is by no means my intention to instruct you in organic analysis,—to accomplish this, laboratory practice is indispensable;—my object is to put you in possession of principles. I will therefore avoid entering into details as far as possible, confining myself to an account of the more important processes which are actually in use. Enabled as I am to illustrate these processes by actual experiment, I hope they will be sufficiently interesting. But, after I have shown you the methods of analysing, I shall have to claim your attention to a few calculations, which, simple though they be, may to many be not acceptable; I have to explain to you how from such experiments we proceed to establish a chemical formula. Now, I consider this a most important point, the very basis of all our future discussions; and I earnestly entreat you to give me a patient hearing. I hope to convince you that the apprehension of these formulæ, which are dreaded by some, as much as they are cherished by others, requires no mathematical attainments whatever.

In estimating the quantities of the constituent elements of organic compounds, it might appear to be the simplest method to separate the several elements, and to weigh them in the isolated state. In fact, such attempts have been made, but they were confined to the earliest stages of organic analysis. An isolation of the elements is generally attended with very considerable, if not insurmountable difficulties. In one case only, viz., in that of nitrogen, the separation as such is easy; but even nitrogen is not usually estimated in the isolated state.

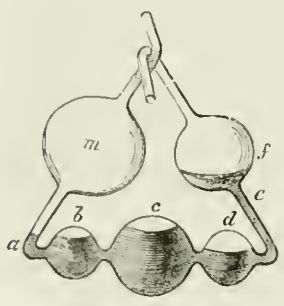
The principle universally adopted in organic analysis consists in the conversion of the elements into compounds of salient properties, the composition of which is accurately established, and which may be readily produced, collected, and weighed. For this purpose, both the carbon and hydrogen are oxidized; the former being converted into carbonic acid, the latter into water; while the nitrogen, provided it is not determined in the free state, is made to unite with hydrogen, and estimated in the form of ammonia. The oxygen is never directly determined; but, the quantities of carbon, hydrogen, and nitrogen being ascertained, the remainder of the substance is inferred to be oxygen.

In order to proceed from the simpler to the more complicated case, let us assume that we have to analyse a substance containing carbon, hydrogen, and oxygen, but no nitrogen. Such a substance would yield, when heated in atmospheric air, or, better still, in pure oxygen, carbonic acid and water. The formation of these products presents no difficulty, but how are we to collect them? The method which originally suggested itself, viz., to perform this combustion in vessels containing free oxygen, has been altogether superseded, by using instead of (or at all events together with) free oxygen, an oxygen-compound as the agent of combustion, which is capable of giving up its oxygen with ease at a comparatively low temperature. Such a substance is the common black oxide of copper. To convince you of the facility with which this compound yields its oxygen, I will introduce this Florence flask (the outer surface of which has been covered with a thin layer of this oxide) into the flame of an ordinary gas-burner. The very moment the oxide comes in contact with the combustible substances in the interior portion of the flame, it is deprived of its oxygen,—it is reduced (as we call it); and you now observe the brilliant lustre of metallic copper. If I remove it from the flame, the hot copper, coming in contact with the oxygen of the air, is oxidised again; showing that copper absorbs oxygen with the same facility with which it loses it.

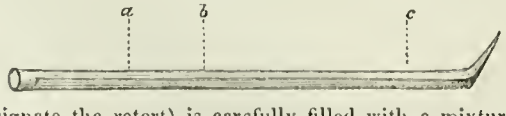
But the following experiment may illustrate this point even in a more conspicuous manner. In this mortar I mix a small quantity of sugar, with finely-divided black oxide of copper. The intimate mixture is now introduced into a little retort, which is fitted into a tubulated receiver provided with a gas-delivery tube. On the application of heat to the retort, you observe that an active combustion goes on at a comparatively low temperature. The reduction of the copper becomes apparent from the red colour which the mixture assumes; and water collects in the receiver; while from the delivery-tube a considerable quantity of gas escapes, which, producing as it does a dense white precipitate in baryta-water, is at once recognised to be carbonic acid. Now, a perfectly analogous apparatus is used in organic analysis, with this difference only, that, while the contrivance before you was calculated to *exhibit* the products of combustion, the apparatus actually employed admits of *collecting* these products and weighing them.

The arrangement before you presents this apparatus in the simplest form. The retort, you observe, is replaced by a

long glass tube. Instead of the receiver, we have a tube containing chloride of calcium,—a substance which, you probably know, absorbs moisture with the greatest avidity; while, lastly, for the delivery-tube dipping into baryta-water, there is appended a piece of apparatus to which I must call your particular attention. It is filled with a concentrated solution of potassa, and serves to arrest the carbonic acid generated during the combustion. This little instrument, known by the title of Liebig's bulb apparatus, was invented by the celebrated chemist whose name it bears. The construction of this apparatus, simple as it may appear to you, has been most signally conducive to the development of the chemistry of carbon; it may be truly said, that this branch of science, as such, dates from the invention of the potash bulbs. But let us examine a little more closely the advantages of this instrument, which I am enabled, as you observe, to exhibit to you in rather magnified dimensions. You observe, the gas enters at one end of the tube; it passes into one of the lateral bulbs (*m*), where it first meets with the potassa; it is next forced through the liquid column standing between the first and second bulb. In this second bulb (*b*) it remains for a moment until the bubble has been sufficiently enlarged to pass through the layer separating the second and third (*c*); this third larger than the others, retains it somewhat longer before it passes into the fourth (*d*). In this the absorption is generally complete; but, to secure the last traces of carbonic acid, the gas is washed once more by a vertical column filling the second limb (*e*) and part of the fifth bulb (*f*). But I will show you experimentally how well this instrument fulfils its object. A glance at the apparatus before you will exhibit the purpose of the various contrivances. It consists of a common apparatus for generating carbonic acid, constructed, as you see, upon the well-known principle of Doebereiner's hydrogen lamp. This generator is connected with a T piece, provided with two stopcocks, which enable us at will to direct the current of carbonic acid, either through this lateral delivery-tube, which discharges into baryt-awater, (the white precipitate in which shows you that we have actually carbonic acid,) or through the potash apparatus. Now, you observe, we have rather a rapid current of this gas; but scarcely a bubble passes through the bulbs. The gas which passes through is nothing but the air originally contained in the apparatus. In order to prove this, we will pass it into baryta water, and, you observe, not a trace of a precipitate is produced.



But let us return to our combustion apparatus. You will admit, that the arrangement for collecting the products could not be simpler and more effectual. But how is the combustion actually carried out? For this purpose the combustion tube (this is the term used in the laboratory to



designate the retort) is carefully filled with a mixture of freshly-ignited oxide of copper, and an accurately-weighed quantity of the substance which it is intended to analyse. This quantity is generally very small; from five to six grains are usually sufficient. We employ, of course, a far larger quantity of oxide of copper than is actually necessary for complete combustion. The mixture being introduced, the tube is laid horizontally on the table, and gently tapped, so as to keep its upper part clear, and to allow

a free passage to the gases generated during the combustion. It is now placed in a furnace of iron plate, with a perforated grating to admit of a regular supply of air. The tube is supported at small distances by a series of iron pillars, which prevent it from collapsing, if it should become soft on the application of too great a heat. The tube is next connected by means of a perforated cork with the chloride of calcium tube, and then by means of a little

caoutchouc connector with the potash bulbs; the weight of the chloride of calcium tube and that of the potash bulbs having been previously determined in an accurate balance.

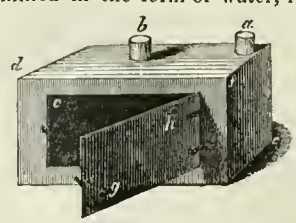
The combustion might now commence, if we were sure of all the joints being perfectly air-tight; this is readily ascertained by experiment. For this purpose we remove, by means of a suction-tube, a small quantity of air from the apparatus, and thus raise a short column of potassa in one of the lateral bulbs, the solution having originally stood level in both. If this column is sustained for about ten minutes, we consider the joints sound, and the combustion may commence.

The fuel employed by Liebig, and, in fact, almost universally used, is charcoal. The tube is slowly and gradually covered with ignited charcoal, commencing at the outlet end. To avoid too rapid a propagation of the heat by radiation, the posterior portion of the tube is protected by a screen, which is gradually removed farther and farther from the outlet end. Water and carbonic acid soon make their appearance, the former being absorbed by the chloride of calcium tube, while the latter, unaffected by this salt, passes into the bulb apparatus.

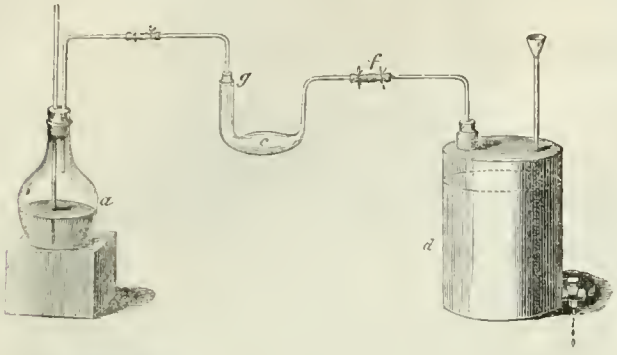
An hour or an hour and a half is sufficient to finish the combustion; the termination is recognised by no more gas-bubbles passing through the potash bulbs. But, although the combustion is complete, the products of the combustion are by no means entirely lodged in their respective receptacles; the whole tube is still filled with the vapour of water and carbonic acid gas. In order to collect the last portions of these compounds, we break the posterior point of the tube, and suck a slow current of air through the apparatus, which, displacing both the water-vapour and the carbonic acid, concludes the operation. It remains now only to detach both the chloride of calcium tube and the potash apparatus, and to separately determine their increase in weight. We have then all the data necessary to calculate the percentage composition of the substance we have burned.

The method which I have described to you is that originally proposed by Liebig, and still employed by him; it is the method by which the great majority of organic compounds at present known have been analysed. The great merit of this process is the simplicity both of the apparatus and of the manipulation; it was in consequence of this simplicity that the apparatus became accessible to every one, and that so great a number of chemists were enabled to engage in the analysis of organic substances.

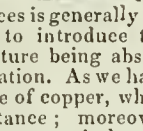
There are a few points to which, before leaving this subject, I have still to call your attention. The hydrogen of the organic compound to be analysed being always determined in the form of water, it is obvious that every source of accidental moisture has to be carefully excluded. For this purpose, the substance is submitted to analysis in a state of perfect dryness. The desiccation is generally accomplished in a water-oven, most substances losing their hygroscopic moisture at the temperature of boiling water. Should this be insufficient,

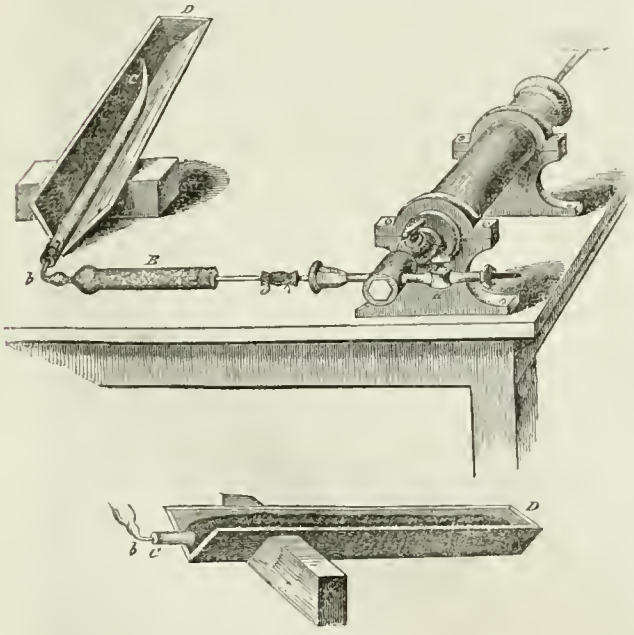


they are introduced into a bent glass tube (*g c f*), open at both ends, which may be immersed into a vessel (*a b*) with boiling



water, the temperature of which has been raised by the addition of common salt, chloride of calcium, etc., while a current of perfectly dry atmospheric air is sucked through the apparatus by means of the apparatus called an aspirator. The desiccation of organic substances is generally sufficiently easy, but it is extremely difficult to introduce them into the combustion-tube without moisture being absorbed from the atmosphere during this operation. As we have seen, they have to be mixed with black oxide of copper, which is itself an exceedingly hygroscopic substance; moreover, the success of the analysis depends so entirely upon the care bestowed in making the mixture, that this operation invariably requires a certain length of time. It may happen, that the combustion-tube, when filled, already contains a certain quantity of water; this uniting, as it must, with the water formed during the combustion itself, will of necessity raise the percentage of hydrogen found in the analysis. In many cases, especially when substances contain but a trifling quantity of hydrogen, (frequently compounds contain less than 1 per cent.,) a very serious error would be thus introduced into the determination of the hydrogen. To avoid this error, Liebig described a method for removing all accidental water before the combustion was commenced. It consists in surrounding the filled combustion-tube with hot sand (*C D*), and removing the moist air by means of an ordinary hand-syringe; by opening





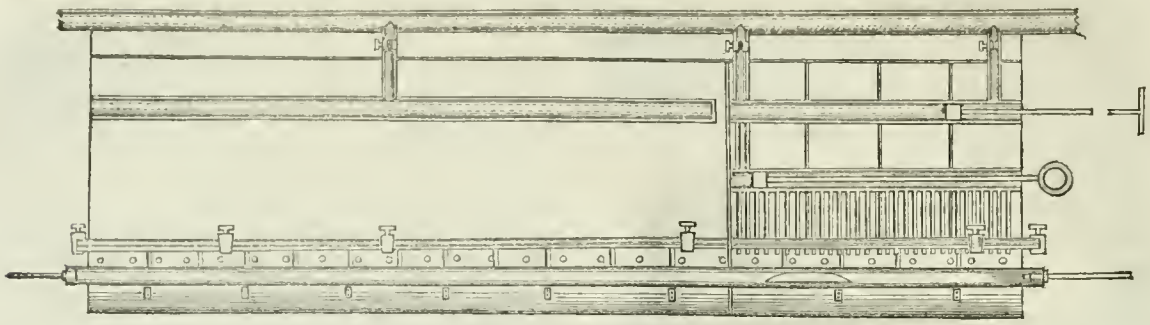
the stop-cock (*a*) of the syringe, air is now again admitted; but this air has previously to pass through chloride of calcium (*B*), and is thus entirely deprived of moisture before it reaches the combustion-tube. By repeating this operation four or five times, it is possible to replace the moist air of the tube with dry air; in other words, to remove the adventitious water.

Those who are in the habit of making organic analyses are of opinion, that the exhaustion of the combustion-tube is by no means the most agreeable part of the operation; it is, in fact, frequently omitted, it being, in that case, understood that the amount of hydrogen found is somewhat in excess.

On the other hand, a trifling deficiency is sometimes observed in the amount of carbon as furnished by this process; this arises often from the mixture of the substance with the oxide of copper not having been made with sufficient care; sometimes, however, it is owing to the peculiar character of the bodies which are analysed. Many substances, such as fibrin, albumen, etc., when heated, give off a large amount of combustible gases, while a difficultly-combustible carbon remains behind; thus it happens, that the oxide of copper having been reduced very completely in some places by the gases at first evolved, particles of carbon may remain unburnt among the metallic copper. In such cases, it is necessary to complete the combustion in a current of oxygen, which may be readily attained by placing a few fragments of chlorate, or, better still, of perchlorate of potassa, in the posterior part of the tube; the oxygen disengaged from these salts in the last stage of the operation consumes any trace of carbon which may have remained in the tube.

The fuel originally, and still most extensively, employed in organic analysis is, as I have stated, common wood charcoal. In some parts of Germany, however, especially in the north, the charcoal has frequently been replaced by spirit of wine, and within the last year some attempts have been made in England to accomplish the combustion by means of coal gas. The change in the fuel necessarily involves some modifications in the process of the analysis; the apparatus certainly loses somewhat in simplicity, but several advantages are gained which appear to compensate for the complication. An arrangement for effecting the combustion of organic substances, by means of coal gas, is placed before you on the table. You recognise at once the original arrangement of the combustion apparatus. You also observe a combustion tube filled with black oxide of copper, a chloride of calcium tube, slightly modified in form, and Liebig's potass bulbs. But you see several appendages which I have to explain to you. First, let us look at the combustion furnace, whose construction will be at once obvious by a glance at the sectional drawing.—[*See next page.*]

It consists of a long box of iron plate, with a perforated bottom, and a top of wire gauze; this box is divided by an iron plate into a longer and shorter division (which I will distinguish as the front and back division). In the front division a perforated gas-pipe is fixed, parallel with the longest axis. The gas issuing from the holes in this pipe mixes in the chamber provided for that purpose with the atmospheric air entering through the bottom, and passes through the wire gauze, where it may be lighted, thus furnishing what is called in chemical laboratories the air flame of coal gas; the cooling effect of the wire gauze prevents the flame from rushing back into the chamber. The back division of the apparatus has a rather more complicated construction. In the first place you observe that it is again subdivided, by means of iron plates, into four compartments; then you see that it is provided with two gas pipes, instead of one; each of these pipes is furnished with a movable piston. To the arrangement and working of these pistons allow me to call your attention for a moment, for on their proper adjustment depends the success of the operation. The lower one is simply a perforated tube like that of the front division; it is supplied with gas in front, at its left hand extremity. As the piston stands at present, the gas passes only into the first compartment; and on lighting it over the wire-gauze at the top, we obtain a narrow sheet of flame, corresponding in width with the compartment; but on pushing the piston further along the tube, we allow gas gradually to enter into all the compartments, and increase the flame over the wire-gauze in the same measure as we proceed. As soon as the piston reaches the other extremity of the tube, we produce on the whole extent of the wire-gauze covering the back division of the apparatus, the same kind of air-flame which we originally saw lighted on the wire-gauze top of the front division. The arrangement of the upper pipe is different. This pipe is supplied with gas at the opposite, the right hand extremity. It



is provided, moreover, with two rows of straight tubes, of very small bore, similar to those used in Leslie's burner; the open ends of these tubes pass through the meshes of the wire-gauze. As the piston is represented in our drawing, the gas is supplied only to the two first tubes, (one on each side of the axis of the combustion-tube,) and may be lighted at the ends, forming, according to the quantity admitted, two larger or smaller jets of gas, which may be reduced to mere points of flame. By drawing out the piston I may light one pair after another, until the whole series is in combustion. The upper and lower tubes, as you observe, are perfectly independent of one another.

Now, complicated though this machinery may appear, it works with the greatest facility and precision. Of this I hope to convince you by experiment, Let us perform an actual analysis together. In this case we use a tube, open at both extremities. This tube contains a layer of perfectly pure and unmixed black oxide of copper, corresponding in length to the front division. By exposing this oxide to the air-flame in the latter, while a current of perfectly dry air is forced through it from one of the gas-holders, which, as you observe, may be connected with our apparatus, we expel every trace of moisture which the oxide of copper may have absorbed during the process of filling. We next introduce the substance which we desire to analyse (I have taken sugar,) and which, as you observe, having been put into a little boat of platinum foil, is placed in the combustion tube; the boat occupies that portion of the tube which is situated over the back division of the combustion furnace. This being accomplished, the combustion tube is connected in front with the chloride of calcium tube and the potash bulbs; at the back with the system of U-shaped tubes, containing sticks of potassa, and pumice-stone, moistened with sulphuric acid, and ultimately with the two small gas-holders I have already mentioned, and which are filled respectively with common air and oxygen. We now light the air-flame of the whole front division; so soon as the oxide of copper is in a state of full ignition, we open the stop-cock of the air gas-holder, and again force through the apparatus a slow current of air, perfectly dried, and deprived of any trace of carbonic acid it might contain by the system of tubes through which it has to pass. The rate of the current may be ascertained and regulated by the number of bubbles passing through a small bottle filled with sulphuric acid inserted for the purpose. We next begin to work with the back division of our apparatus; we push forward the piston of the lower tube, so as to admit gas to the first compartment, which enables us to expose the very extremity of the tube to an air-flame similar to that to which the oxide of copper is exposed all the while. We now slowly pull the piston of the upper tube, supplied at the time with a very moderate quantity of gas; the several pairs of jets being lighted successively, we succeed in gradually exposing the boat containing the substance to a slowly increasing temperature. The substance begins to be decomposed, and a portion of its carbon and hydrogen is evolved in the form of volatile products. These vapours are carried by the forward current of atmospheric air towards the red-hot oxide of copper, where they are rapidly converted into water and carbonic acid, which are collected as usual in the chloride of calcium tube and the potash bulbs. These bulbs are in our case connected with an additional little tube, containing sticks of potassa. The object of this tube is supplemental to the action of the bulbs if the operation should proceed too rapidly, but chiefly to arrest any aqueous vapour which might be carried off from the potash bulbs by the current of air. The expulsion of all volatile matter from the substance to be analysed (the distillation of the substance, as it may be called,) requires generally from ten to fifteen minutes; sometimes the whole substance is thus volatilized; in some cases, however, a portion of carbon remains behind. In order to burn this the gas is turned off from the jets, and the whole platinum boat exposed to the action of the full air flame, which (by pushing forward the piston of the lower tube) is made to play over the whole wire gauze top of the back division. After a few seconds, the carbon has assumed the highest temperature it is capable of reaching in this apparatus. The current of air is replaced by a slow stream of oxygen from the second gas-holder. As soon as the oxygen meets with the carbon, you observe a brilliant phenomenon of incandescence; the carbon is rapidly converted into carbonic acid, and after a few minutes the platinum boat is perfectly clean and empty. The current of oxygen is still continued for some time, in order to re-oxidise the copper which has been reduced by the combustion of the volatile products; the operation is finished so soon as the presence of free oxygen becomes perceptible in front of the potash tube, which may be recognised by a glowing match being held before the orifice of this tube. The current of oxygen is now interrupted, the apparatus detached, and the chloride of calcium tube, and potash bulbs are weighed, after the oxygen, which, as you recollect, is a little heavier than air, and moreover more soluble, has been replaced by sucking a current of air through them. The tube, still red hot at this time, is allowed slowly to cool by gradually turning off the gas.

This mode of burning has many advantages, some of which I may be allowed to point out to you. The amount of carbon and also of hydrogen, especially the latter, is ascertained by this process to a degree of nearly absolute accuracy, since every trace of accidental moisture is excluded, the operation of mixing being altogether avoided. The absence of accidental moisture enables us to use very minute quantities of substance, from two to three grains being in many cases quite sufficient,—a circumstance which materially accelerates the operation. The first putting together of the apparatus of course takes some time, but, once fitted up, an analysis is made with great dispatch, inasmuch as the tube, after the termination of the first combustion, is quite ready to receive another substance, the oxide being ignited and re-oxidised in the previous operation. Moreover, the same combustion tube may be used six or eight times, whilst in the ordinary mode a tube has to be sacrificed almost for every operation. The arrangement I have described to you is particularly useful when a considerable number of analyses are to be made.

The experiment which I have shown to you has, I hope, made you familiar with the principal features of the determination of carbon and hydrogen. I might have added a great many details,—I might have pointed out to you the additional precautions required when substances contain, besides carbon, hydrogen, and oxygen, nitrogen, or chlorine, or sulphur,—I might have explained the combustion of liquids and that of gases; but I have excluded these details in order not to accumulate the number of operations which I had to describe. It remains now to give you an account of the method of estimating the nitrogen; but, acquainted as you are already with the general mode of proceeding in experiments of this kind, you will have no difficulty in understanding these processes, even though the limited time at my disposal will compel me to be rather brief in their description.

ORIGINAL COMMUNICATIONS.

CASES OF PLACENTA PREVIA.

By CHARLES WALLER, M.D.,
Obstetric Physician to St. Thomas's Hospital.

Case 51.—On the 14th of the past month (December) was requested to visit a female under the care of Mr. Amsden, who informed me his patient had been suffering from uterine hæmorrhage, to a greater or less extent, for the preceding eight or nine weeks; that she had been unable to take the necessary precautions for its arrest in consequence of being obliged to attend to the concerns of her family. She had been for a long time subject to great mental anxiety and distress, being cursed with an intemperate husband, who was in the habit of coming home at all hours of the night, and creating so much disturbance, that rest was impossible; indeed, she had not had a regular night's sleep for several months.

This patient was thirty-five years of age, and she had been confined five times with tolerably healthy children, and had thrice miscarried. Mr. Amsden had, from time to time, visited and prescribed for her. Little, if any, dilatation of the os uteri had taken place until the date above-mentioned, when he discovered the nature of the case. Being naturally anxious for the result, and fearing that, in a constitution so broken down by nervous excitement, fatal symptoms might occur after the delivery, I was desired to meet him in consultation. On my arrival, I determined on immediate delivery, as the os uteri, although dilated not more than to one-half of its extent, yielded to slight extending efforts, and the female, although perfectly blanched in her appearance, was far from being in a state of exhaustion. The pulse was quick, feeble, but very distinct. The hæmorrhage at that time was trifling. There were no distinct pains of labour.

The placental presentation was complete, the ovum entire, the liquor amnii not having passed away. The placenta was entirely detached from its connexion with the uterus, the hand carried through the membranes, the feet grasped, and a child, which had been some time dead, easily extracted. After the separation of the placenta, the hæmorrhage entirely ceased; no blood was lost in the subsequent steps of the operation. Faintness, but no deliquium supervened; some egg mixed with brandy was administered, and I left the house with the confident expectation that all would be well. On the 10th day after confinement, I was requested again to see this patient, in consequence of severe indisposition. On inquiry, I was informed, that, for the first two or three days she had remained in very much the same state as when I left her, with the addition of great irritability of bowels; that she had been disturbed and alarmed by the noisy behaviour of her husband, who had returned home in a state of intoxication at a late hour of the previous night. This circumstance had produced a state of nervous excitement amounting to slight delirium; the diarrhœa had increased, the stools passing involuntarily; the exhaustion, as might be expected, extreme; the face of a marble whiteness. These symptoms were mitigated during the following week, but still there was no decided rally. At the termination of this period another source of disquietude occurred in the sudden removal of her nurse, to whom she was much attached; this was followed by an increase of nervous excitement, after which she gradually sank.

The treatment adopted in this case was ineffectual. It consisted principally of decoction of bark with aromatic confection, large doses of chlorate of potass, and opium, which soon checked the diarrhœa. Relief also appeared to be obtained by the exhibition of full doses of opium, three grains of which were occasionally given at bed-time, followed by a two-grain pill an hour afterwards. Some hours of tranquil sleep were produced by the remedy, and a temporary feeling of refreshment ensued. Food was, to a great extent, retained on the stomach; notwithstanding, however, there were occasional shades of improvement, these were but temporary, and insufficient to excite hope of eventual recovery. It should be stated that the annoyance before adverted to was repeated almost every night, so that our unfortunate patient scarcely passed twenty-four hours in quietness from the time of delivery; and in truth it may be asserted, that for many months previously her mind and body had been harassed from the same cause.

Finsbury-square.

ON THE USE OF MERCURY IN HYDROPHOBIA.

By BERNARD E. BRODHURST, Esq.
Assistant-Surgeon to the Royal Orthopædic Hospital.

It may with truth be said, that of all the maladies with which mankind is afflicted, none is more inveterate and less amenable to the influence of medicines than is hydrophobia; nor is there a subject upon which pathologists are more divided, and of which so many unphilosophical notions are expressed, and so little certainty of knowledge is entertained as that to which I now refer. It is because this malady presents so large a field for inquiry, that I venture briefly to address myself to the subject.

Hydrophobia is essentially a disease of the canine race, arising spontaneously, and communicable to every other animal. (a) There is no reason to believe in its spontaneous origin, except in the canine race; and it is probable that it is rarely, if ever communicated, except from the canine and the feline races. Little doubt can be entertained that this malady is communicable from every species, the saliva being the poison, or the vehicle of the poison; and that safety from infection is to be found rather in inability to communicate the disease, through partial paralysis of the muscles of the jaw, or in the shape of the teeth than in the absence of poisonous qualities in the saliva.

Every animal that is bitten by a rabid animal becomes rabid, at various periods. That this shall occur, however, it is essentially necessary that the skin be broken; for on the unbroken surface the virus is wholly innocuous. Nor is it certain that, even when received on to a whole mucous surface, it is capable of being absorbed; but the slightest abrasion is sufficient to insure hydrophobia. Perhaps all are equally susceptible of this disease; but some being more protected, whether by scales, feathers, hair, or wool, are less liable to be infected. There is no case on record where the virus has been introduced beneath the cuticle with impunity, or without giving rise to hydrophobia.

There would seem to be greater immunity from the hydrophobic virus than from that of a poisonous reptile; but this

(a) Although the spontaneity of rabies is denied by Mr. Youatt, there is I think, good reason to believe in it—1st. Because the disease would appear to be induced by extreme cold and want of food; and this appears also to be the most prominent cause of rabies in the canine race, in which alone it is now contended that this malady arises spontaneously. 2ndly. Because rabies not unfrequently results in the South of Europe, the dog being fed on animal food, during the heat of an Italian summer, for instance. 3rdly. Because rabies is not unfrequently developed, sexual congress being disallowed. In some species, restraint during the period of œstrum excites so much irritation, and perhaps not less in the dog, that it is probable this may be an exciting cause. Indeed, irritation of whatever kind, whether ill-usage and cruelty, or of the alimentary canal; whether it be referrible to the cerebrum or to the cerebellum, is sufficient cause to excite, in all its significancy, rabies canina.

Mr. Meynell has stated his belief in the non-spontaneity of rabies, whilst he found that, on making each hound perform a certain quarantine before admission into his kennel, the disease was prevented, and never showed itself in his pack. But this is no answer to the question. In a well-kept pack of English hounds, it is not surprising that rabies should not arise spontaneously, for each exciting cause is absent. Thus, they neither suffer from heat nor cold, neither from starvation nor repletion, but are well tended and cared for on the first symptoms of illness, so that, exciting causes being absent, the disease can only be introduced by direct transmission. And even Mr. Youatt, so powerful an opponent to the non-spontaneity of rabies canina, admits that irritation is an exciting cause to the development of the malady, the virus being present, in the following words:—"When the rabid virus lurks in the frame, anything that produces considerable excitation in the system, or that renders the nervous fibres, or the textures generally, suddenly and highly irritable, may rouse it to action. These causes may even rouse to activity that which would otherwise never have possessed sufficient power to affect the constitution." . . . "If the pregnant bitch becomes rabid, it is within two or three days of parturition. The bitch not in pup is often attacked during the period of œstrum."—"On Canine Madness," p. 26. In the sentence now quoted, these words occur:—"These causes may even rouse to activity that which would otherwise never have possessed sufficient power to affect the constitution,"—a statement not easily proved. If the rabid virus were introduced beneath the skin, rabies would be the certain result; nor would it require exciting causes to produce its development, although these might excite its earlier development. But if there were no evidence of the introduction of the poison,—no sore at the period of recrudescence, but exciting causes present, such as œstrum, parturition, cold, starvation, irritation, what sound objection were it possible to advance to the spontaneous origin of rabies?

is not, indeed, the case. The bite of a venomous reptile, such as coluber carinatus, crotalus horridus, etc., is always followed by poisonous effects, as the venom can exude only when pressure has ceased to be made, at the moment of withdrawing the fang; and consequently, in all probability, after the skin has been broken. The same may be said of the hydrophobic tooth: if this is armed with the virus at the moment of puncturing the skin, it will give rise, equally with the poison fang, to poison symptoms. The greater immunity arises from the possibility of the virus being wiped away from the surface of the tooth, while the serpent venom is emitted through a canal in the centre of the fang. It is probable that the dog at Charenton, which was exposed to and bitten by thirty different mad dogs without becoming rabid, owed its exemption to its coarse and thick coat. And Mr. Oldknow's case (*Edinburgh Medical and Surgical Journal*) well exemplifies how the virus may be wiped from the penetrating tooth, and all its effects be thus avoided. In this instance a person was bitten by a rabid dog in three separate places, two of which were covered, but the other exposed. In due time hydrophobic symptoms appeared, and, at the period of recrudescence, that wound only which had been inflicted on an exposed surface became a sore; showing that to this third and last bite the symptoms were due.

From forty to sixty days from the time of inoculation is the usual period at which the state of recrudescence occurs in man. This period may arrive sooner than usual, any extraordinary exciting cause being present, or it may be delayed by the presence of another blood-disease, such as variola; and if by variola, then probably by other animal poisons. May not the long periods of incubation of five, ten, and fifteen years be due to the syphilitic, or other blood-poison? In the case of syphilis, we have a virulent blood-poison, through which every tissue and secretion is affected. Each blood-poison is probably capable of arresting the progress of a second, which may have been already introduced into the blood, but which may require a longer period of incubation for its development, in the same manner as the variolous is arrested by vaccinia; in the same manner as mercury alters the constitution of the blood, to destroy, to weaken, or to postpone the action of the poison that may be latent. But that another blood-poison may arrest hydrophobia, is to admit hydrophobia to be a blood disease, the which is not generally admitted. It may be well, therefore, briefly to examine this part of the question.

It is, I believe, undeniable, that the hydrophobic virus being introduced beneath the skin will certainly give rise to hydrophobia. This alone is strong *primâ facie* evidence to conclude hydrophobia to be a blood disease. But, it is said, the poison lies in the wound, and may be removed at any period prior to recrudescence;(a) which statement is sufficiently contradicted by the numerous fatal cases which have followed the late excision of the bite. But, it is replied, the wound was insufficiently excised,—a most unfair and unjust charge to cast his patient's death upon the operator's shoulders. It were impossible to show proof, on the one hand, that the virus had ever been present; or, on the other, that the wound had not been circumscribed. Mr. Youatt says: "One of the surgeons of St. George's Hospital told me, that, since his connexion with that establishment, he and his colleagues had operated on more than as many thousands (4000) bitten by dogs (he could not say that all of them were rabid), and he was not aware that one of them had been lost."(b) Here it is insinuated, that during a period of, shall we say thirty years, 4000 persons, or thereabouts, were bitten by rabid dogs. A statement, which, together with the finale, that none had been lost, would seem to carry with it the conviction, that excision of the wound prior to recrudescence was all sufficient for the safety of the patient. During a period of fourteen years 181 persons were admitted into the hospital at Breslau who had been bitten by dogs, half of which number had been bitten by mad dogs, and two cases terminated fatally. But rabies canina is far more common in the neighbourhood of Breslau than in London, yet 92 cases only are reported to have occurred in half the period that it appears to me probable one of the surgeons of St. George's Hospital may have been attached to that institution, and during which period 4000 cases are reported. Since 1846, two cases only of hydrophobia have occurred throughout the whole of this metropolis. I do not wish to assert that these 4000 wounds were excised needlessly, nor can I prove that not one in a hundred was produced by a hydrophobous animal; yet I think it will be admitted by all, that before such evidence can be received, it will be necessary to show some proof that the hydrophobic virus was planted in the wound. The cases that have occurred and terminated fatally, where it was well known that the individual had been bitten by a rabid animal, and the part excised only before the period of recrudescence, prove as strongly as facts can teach, that the late removal of the scar, when the wound has been inflicted by a rabid animal, is useless, and for the same reason unnecessary, when the animal is not hydrophobous.

But what are the changes produced in the blood itself by the introduction of this poison? They are diminished vitality and loss of coagulability. During the circulation of healthy blood, a galvanic current exists, passing from the artery to the vein. A current is also formed during the coagulation of the blood, on connecting a portion of arterial with another of venous blood. Even before the period of recrudescence is complete, the blood is found to have undergone material change, and its texture is looser. It is certain that this changed condition of the blood will materially affect the force of the current; nor is it unreasonable to suppose, that the vitality of the fluid will be influenced, perhaps as intimately, as by increase or decrease of its constituent salts. But the changed condition of the saliva shows indirectly that some alteration has been effected in the blood. This acquires an acid re-action, and its salts are relatively diminished in quantity, while, towards the end of the malady, its mucus and ptyalin are increased. Also, that another blood disease, such as variola, shall have the power of arresting the development of hydrophobia, is strong presumptive evidence that the blood in hydrophobia, equally as in variola, is the part primarily affected. Nor is this supposition lessened by the evidence of Mr. Youatt, who says, that considerable irritation of the system, such as œstrum, will develope the symptoms of hydrophobia, the virus being present. But what is altered other than the blood during œstrum, or what changes are so remarkable in the animal economy as those of the blood during this period, or in that analogous period in the male? I must, therefore, conclude hydrophobia to be a blood disease, capable of being developed extraordinary excitants being present; of being retarded through the agency of other matters which have a greater affinity for, or whose action is to prevent the development, or destroy the action of the morbid virus.(a)

When incubation is complete, and the period of recrudescence has arrived, then the symptoms truly pathognomonic of hydrophobia are disclosed. As in another blood disease, scorbutus, the old wound again becomes a sore; the bowels are rendered costive; the secretions are vitiated; erroneous impressions are conceived; excessive irritability, spectral illusions, and delirium quickly follow, and close the scene. That the disorder is not less of the cerebrum than of the medulla oblongata is manifest. The medulla, however, would appear to be first affected. In tetanus, the state of the blood is unaltered, and the intellect is unaffected. This is, as it were, a circumscribed malady, the medulla being the seat of disordered function. Now, tetanus and hydrophobia have always been allied, the one with the other, by pathologists; yet, saving the convulsive movements excited in either, there is little or no affinity. Referring to rabies canina, Mr. Youatt tells us, that "in every case the medulla

(a) It is asserted, that the virus lies in the wound, and is not removed prior to the period of recrudescence, because it is occasionally found that, pressure being made on the scar, pain and convulsions are excited. This is so rare an occurrence, however, that it can only be treated of as an exception to the rule. I remember a patient of the late Mr. Andrews, at the London Hospital, who had been struck on the back of the hand by the teeth of a machine for carding wool; tetanus supervened, and he died. On examination, three twigs of the posterior branch of the ulnar nerve were found to have been struck by the teeth of the instrument. In the same manner, it is possible that occasionally the dog's tooth may come into direct contact with the branch of a nerve. At the period of recrudescence, or prior to this period, a state of local congestion shall very probably cause convulsion on pressure, convulsion which will differ but little, if in any degree, from tetanic convulsion. On division of the nerve, or on circumscribing the wound, spasm will immediately cease. Should the wound have been inflicted by a rabid animal, such measures will, of course, be useless to prevent hydrophobia, but they may relieve the irritation and tetanic spasm occasioned by the puncture, whether this be made by the tooth of a hydrophobic or of a healthy animal.

(b) Lib. cit. p. 34.

(a) "It would be interesting to know if the microscopic appearances of the blood resemble in any degree those described by Drs. Handfield Jones and Sieveking, as resulting from the introduction of the serpent venom."—*Medical Times and Gazette*, August 7.

oblongata is affected. Occasionally there is injection of the membranes, and curiously marked when compared with a portion of the spinal cord below or the cerebral mass above. The substance of the medulla oblongata, and especially of the corpora olivaria, (restiformia?) generally presents increased vascularity. Minute specks of blood follow the scalpel, and the greyish yellow of the corpus olivarium has a slight hue of pink mingled with it."

"I have seen vascularity of the membranes through the whole of the spinal cord, and in a few instances this vascularity has increased about the lumbar region; but, generally speaking, no decisive trace of disease is to be found in any part of the vertebral canal."(a)

In traumatic tetanus, irritation and inflammation of the nerve itself supplying the wounded part may usually be found. And that this disease has its origin, whether in idiopathic or traumatic tetanus, in irritation of the part affected, is conceded by most. Indeed, cases are so numerous in which the source of irritation is obvious, that the cause cannot be denied. But in hydrophobia, not only "no decisive trace of disease is to be found in any part of the vertebral canal," but I have the authority of Rokitansky to affirm, that he has never found in the numerous sections and minute examinations which he has made of those who have died hydrophobic, evidence of increased action or morbid product to explain the symptoms that occur in the course of this disease. Neither do the nerves of the part affected appear to be inflamed or to have been irritated; yet, from the period of recrudescence, we have undoubted evidence, not only of irritation of the medulla oblongata, but also of the cerebral substance. The arachnoid is frequently found opalescent, and the vascularity of the pia mater is increased; ecchymosis of the cerebral substance is not unfrequently present, seldom, however, implicating the organ deeply, but confined to the superior surface of the hemispheres. The thoracic mucous membrane, from the glottis to the minutest subdivisions of the bronchi, as well as that of the tonsils, pharynx, and œsophagus, is, for the most part, deeply congested. In tetanus, the affected nerve, or its neurilemma, is found red and inflamed, or softened in structure; and the membranes of the cord, corresponding to the origin of the nerve, injected, with, perhaps, effusion within the membranes, and ramollissement of the cord itself. Here the result of direct irritation is manifest; but in hydrophobia, blood disorganization, with congestion and inflammation. Consequently, these maladies cannot be arranged as belonging to the same order, the distinguishing characters of the one being nervous irritation, whilst those of the other are due to a peculiar change of the blood which has been induced by the introduction of the rabid virus.

And as, in tetanus, it is in vain that the injured nerve is divided, or the extremity amputated, after the symptoms of disease are fully established, so, in hydrophobia, to wait for the period of recrudescence is to consign the patient to a fearful and certainly speedy death. And to remove the old wound after cicatrization is complete and the period of recrudescence is approaching, is to trust to measures that have repeatedly disappointed the surgeon. And if, at this late period, they are inefficient and not worthy to be relied on, neither are they to be trusted as sufficient, the wound having healed, and inflammation having ceased; for it is probable, although it were difficult to prove the point absolutely, that absorption commences so soon as the traumatic inflammation has subsided. I am not aware that one well-authenticated case is recorded of a wound inflicted by a hydrophobous animal on an uncovered surface which, unheeded, has not given rise to hydrophobia. Neither, under the same circumstances, that the removal of the cicatrix, cicatrization being complete, has prevented the development of hydrophobia. But it is well known that the cicatrix has oftentimes been removed uselessly, and without preventing the manifestation of hydrophobic symptoms. The cases recorded by Wendt, as having occurred at Breslau, are very important, showing but two fatal cases in ninety-two. In all these cases, a purulent discharge was excited, and mercury given to produce salivation. We are not told, however, that in any of these cases the treatment was commenced after cicatrization was complete. I am consequently anxious to relate a case, which, if not singular, is at least interesting, although, doubtless, it would be premature to draw conclusions.—"Una hirundo non facit ver."

March, 1851.—Capt. W., aged 32, was about to mount his horse in his father's stable-yard, when he observed a strange dog. He approached and noticed it. Immediately the beast snapped at him and slightly grazed the skin of his hand. The dog was chased out of the yard, and the circumstance excited no further notice. The next day my friend Capt. W. left home. On the third day from that on which the accident occurred the dog was found dead in the neighbouring village. It had been killed, as it was affirmed, in a rabid state. On hearing this report his family became alarmed, fearing lest any ill consequences should accrue to Capt. W. from the bite. He was apprised of the circumstances, and, being in town, came to me to know what should be done. The wound, which had been inflicted on the back of the bare hand, had cicatrised. I persuaded him to allow me to remove it with the knife, and I removed it. This wound was allowed to granulate. With the sanction of a physician of this Metropolis, small doses of mercury were administered, and a slight action of the mineral maintained for the space of six weeks; at the end of this time it was gradually discontinued, and our patient remained well.

Of the action of mercury upon the blood, it were unnecessary here to say one word. The destructive changes that it accomplishes in certain elements of the blood, and its power to negative some morbid actions that are carried on in this fluid—which are here nursed, to contaminate by a morbid circulation, and to be evolved in the solids—is a principle of medicine that need only be referred to. Whilst we know the powerful action of this mineral in diseased conditions of the blood, and, combined with arsenic, have proved its efficacy in staying the virulent poisoning effects of the serpent venom, it were scarcely necessary to say much in its favour, or to hold out further reasons for its administration during the incubation of hydrophobia; and when the loose state of the blood prior to recrudescence is recollected, and that all the symptoms of hydrophia are those of a blood disease; and when, as has been already stated, the cicatrix may be removed, and hydrophobia result; and, on the other hand, mercury exhibited, and the patient, perhaps, be held exempt from the most dreadful disease to which human kind is subject—the use of mercury will become an absolute duty, at least when the bite of a rabid animal has been received on an exposed surface. But, inasmuch as the virus is not always removed from the tooth by the covering of the limb, then, in every case where complete excision of the wound cannot be at once and satisfactorily accomplished, the exhibition of mercury should be resorted to. And since excision of the wound, after perfect cicatrization, is alone useless, then surgery has little more to offer than to alter the condition of the blood by the prolonged use of the mineral. Thus, I have endeavoured, at greater length than I had intended, to draw the attention of the Profession to the treatment of hydrophobia by means which are always applicable and uninjurious, and which have been proved to be more efficacious than any other treatment hitherto proposed for this malady.

Brook-street, Grosvenor-square.

(a) Op. cit. p. 6.

NOTES ON CHOLERA IN INDIA.

By ALEXANDER THOM, Esq.
Surgeon to the Forces.

Among the many remarkable instances which I could adduce in proof of the non-contagious character of cholera, I will mention one or two.

In July, 1850, a detachment of 118 men of Her Majesty's 86th Regiment, coming from the Sanatorium at Aboo, were attacked with cholera on the second day's march, 10th July, at Varman, and two men died in a few hours. On the 13th, when about to march into Deesa to join the regiment, it was considered necessary by some, as a precautionary measure, to keep the "tainted body" at a distance from camp, as there were several cases of cholera in it; or at least to quarter them in a barrack-room apart from the healthy men. This I objected to as conveying the idea of the disease being contagious or infectious to the men of the regiment, who were all labouring under great prostration, and very generally suffering gastric irritation and serous diarrhœa, and therefore especially predisposed to have this peculiar diathesis excited

into the fatal form of cholera, by the panic likely to arise, from the fact of a part of their corps being beside them with a malady capable of being propagated by communication; for on this supposition alone would there be any reason for segregating the body. My opinion was yielded to, and the 118 men marched into camp, and were dispersed to their respective companies in ten different barracks. It so happened, that there were eight or ten men of each company, so that this number of the "tainted" detachment were mixed indiscriminately with the others. Three cases of cholera were carried to the hospital, and placed under the same roof with 110 patients. At the time the heat was intense, 86° and 88° at sunrise, and 101° to 106° at 3 p.m. in the shade, and the wet bulb 80° to 83°. Cholera was prevalent in the country all round Deesa.

Under these circumstances, it would not have been surprising if a few cases had occurred in the regiment, even if a sickly detachment had not joined it. But the fact is, that not a single individual of the regiment occupying the barrack-rooms, and sleeping side by side with the men of the detachment, was attacked with cholera. Three men of the detachment, however, were attacked on the second day after being placed in barracks, and were removed as usual to hospital, thus showing that the men of the detachment actually carried the seeds of the disease into the quarters of their comrades without propagating it. The regiment otherwise escaped cholera.

Some responsibility was involved in this measure, and it was thrown entirely on my shoulders. I had some anxiety lest cases of cholera should appear, as might have been expected from the state of the weather, after the arrival of the detachment at Deesa, for in such a case they would have been attributed to the "tainted body" by a good many; for it is the easiest way of explaining the spread of cholera by calling it contagious; it removes the necessity for seeking out the real causes and their combined action.

In January, 1847, the 86th Regiment returned from Scinde to Bombay in several steamers. This was about six months after the great outbreak of cholera at Kurrachee, in June and July, 1846.

While landing at Bombay, in the afternoon, one boat's-load of men on their way from the steamer to the landing-place were exposed to a shower which completely drenched them; and in this condition they had to remain till they landed, and marched up to join their comrades in the town-barracks. It was known that many of these men did not change their clothes till they went to bed, so reckless and thoughtless are soldiers on these points. About twelve o'clock that night a messenger from the hospital came to tell me that "the men were coming in very fast from the town-barracks with cholera." Between midnight and next morning five or six cases were admitted, and several more with diarrhœa, cramp, etc., but none of the worst symptoms, as collapse, etc. Having an opportunity of using iced-water, we were more than usually successful in quieting the stomach and soothing the general distress.

On inquiry next day, I found that every case was in men who had been wetted in the act of disembarking. They were all seized about two or three hours after getting into bed. The rest of the detachment, who had come from Kurrachee in the same steamer, who slept in the same room, had in no one instance a sign even of cholera. Another detachment had arrived a few days before by another vessel, and also occupied the town barrack, but they also had a complete immunity from cholera. In fact, all had been under like circumstances at Kurrachee and on the passage down, belonging to the same regiment, and living in the closest intercourse, except that about thirty men were drenched with rain, and among these the cases of cholera occurred.

This is one of the most remarkable examples I ever met with of this kind. We all know a wet jacket is not the cause of cholera; but is it likely that if these men had not been exposed to this that they would have had cholera? It was either a concurrent or exciting cause. But in this way we must believe that a choleraic diathesis existed, predisposing the body to the disease in its developed form. There was no reason to suppose that the men who accidentally stepped into a boat which had landed the rest of their comrades, had anything except the wetting peculiar to themselves from the rest of the regiment. Had it been contagious it must have shown itself among the hundreds of men in the town barrack into which the party in question were placed.

The whole of the cases appeared in this particular party within twenty-four hours after their wetting. For three weeks more, while the regiment occupied the barracks in Bombay, no case even resembling cholera occurred; but on being moved across to go to Poonah, the same men after the first day's march from Ponwell to Chouh, showed in several cases distinct signs of cholera; in seven diarrhœa, spasms, a blue ring round the eyelids, and sunken features, etc., and were admitted about the middle of the day, having marched into camp about 7 a.m. A curious symptom among some was the severity of the spasms of the lower extremities and abdominal muscles, which occurred without serous discharges from the intestinal canal, but were accompanied by the haggard, wild look and distress which is premonitory of cholera. No case died. The signs of a choleraic diathesis were unmistakable by any one who has seen the disease in the worst type. The season was fine, dry, clear, and cool.

Again, we have another exciting cause developing cholera. Marching is not the remote cause of it, but a concurrent one. There must have been something latent in the constitution of the men, which, without wetting and marching, might never have become manifest, but died away under the quiet and sanitary influence of the season. It must be borne in memory, that six months before, the regiment had between 400 and 500 cases of cholera, and lost by deaths 240.

It is these curious facts, added to many others, both of a special and general kind, that induce me to think that a peculiar diathesis—*i. e.*, change of the state of the blood, is that state of the system, engendered by atmospheric states, which predisposes men to cholera from the accessaries not capable under other circumstances of inducing it. The duration, degree, etc., of this must, of course, be influenced by the innumerable and ever-varying changes of climate and season, which all countries are subject to. On this supposition alone can we explain the sudden blows struck by this fell disease in a night, and confined to a spot, or to a *class of individuals*, having some exciting causes in common, which others have not.

It is alleged that cholera did not spread from St. Denis to the interior of the Island of Bourbon in 1819. Staff-surgeon Collier in 1832 reported home that Governor Mylins could "not succeed in shutting out cholera from Bourbon, and that it spread in spite of the Lazaret," where every one was taken to on being attacked. Mr. Collier's informant, a gentleman who is living, but whose name may as well be suppressed, said he "believed it extended to the whole island," but "it was milder in its nature." So violent were the French medical men in favour of contagion at Bourbon, that they left out these very important facts. An omission is sometimes worse for the cause of truth than direct falsehoods. Some day I hope to have time to condense some curious statistical facts on the subject of cholera in India among troops.

CASE OF EXTRA-UTERINE FŒTATION (OVARIO-TUBAL).

By WM. L. LANGLEY, M.D.
Surgeon to the 63rd Regiment.

Mrs. Jane Eliza O'Brian, aged 22 years, married five months, without leave, residing in the town of Athlone, was seized with severe pains, similar to labour pains, early on the morning of the 21st Dec., 1852. I was requested to see her at one o'clock p.m. on that day, by her husband, gunner and driver John O'Brian, Royal Artillery. She lay in a semi-flexed position in bed, with her thighs somewhat bent upon the abdomen, and the legs on the thighs. She looked very pale, anxious, and depressed, and at first indisposed to answer my questions. Pulse tolerably full and firm, about 70. Stated that she was five months gone with child, and had strained herself on the previous day whilst spreading clothes to dry on a line; that she suffered from most distressing pain in the small of her back, extending to the abdomen and thighs, the pain as referred to the abdomen being especially distressing. No flooding or discharge of any kind was apparent, nor could the os uteri be felt in the least dilated. She was very desponding, and said she was sure she would die. Ordered an anodyne and slightly stimulating draught, which composed her for some hours; she was again seen by Assistant-Surgeon Rutherford, 62nd

Regiment, at nine o'clock, when the same train of symptoms were observed as in the morning, and the same remedies had recourse to; but at ten o'clock she got up to take a drink, became suddenly faint, fell back in the bed, and died almost instantaneously.

Sectio Cadaveris, Forty-eight Hours after Death.—On laying the abdomen open an immense quantity of fluid blood was found, filling up the whole of pelvic and hypogastric regions, and a fœtus at about the fifth month was seen floating in the umbilical region through the transparent membranes, which were whole and perfect, but broke as soon as they were taken in the hand. The umbilical cord was traced to a large rent in a hollow membranous sac, in the right ovarian region, somewhat similar in shape to the womb, to the inside of which the placenta was seen to be adherent, but on further examination the unimpregnated womb was also discovered and laid open for the purpose of tracing its connexion with the other body, which had evidently been the resting place of the fœtus, and an imperfect deciduous membrane, an abortive effort of Nature made for the reception of the future being, was found lining the inside of the womb, but the Fallopian tube was impervious, and prevented its transmission to its natural abode. The dilated bag of the ovary was connected with the true uterus by means of the right Fallopian tube, the fimbriated extremity of which covered and was adherent to it. This woman had suffered from pain, and a variety of anomalous sensations in the right groin and lower part of abdomen for several months, at least three or four, but would not submit to an examination.

As the death was so sudden and unexpected, we called for and obtained a coroner's inquest upon the body, and the assistance of a civil practitioner of the town to be present at the examination.

Athlone Barracks.

POLYPUS OF THE UTERUS.

EXTREME EXHAUSTION.—SPONTANEOUS SEPARATION OF THE POLYPUS.—RECOVERY.

By J. H. HOUGHTON, M.R.C.S.E.
Surgeon to the Dispensary, Dudley.

Miss P., aged 40, applied to me in April, 1850, complaining of profuse and painful menstruation, by which her health had been a good deal injured. The disease yielded to ordinary measures, and the health became much better.

In March, May, June, and October, 1851, she again came under my care for a similar train of symptoms in a more aggravated form, her health having suffered a good deal more from the continued drain upon her system. On each occasion she got relief by medicines for a time, but the flooding soon recurred. The probability of there being a polypus, or some other diseased state of the uterus, was explained to her, and the necessity of a vaginal examination insisted on; but to this she positively refused to submit. At the end of September of the present year (1852) she again applied to me, her health having got into a deplorable state. She was extremely exhausted, confined to the house, and, indeed, almost to her bed, and suffering from the usual symptoms of excessive loss of blood, in addition to the local signs, and is incapable of following her occupation, that of schoolmistress.

The floodings had increased in quantity and frequency ever since I last saw her, and now she has a profuse attack every week. This state has existed for the last five months. She again requested that I would defer any examination for a time, and endeavour to give her some relief by medicine again.

On the 5th of October, I left home for a fortnight, and on my return I found that on the 6th, "during one of the attacks, some substance, about the size of a sheep's kidney, smooth on the surface, and very much like it in shape, and with a stem attached to it, passed from her." The flooding almost immediately ceased, and has not recurred. The menses have returned at each monthly period, lasted a week each time, have been profuse, and attended with but slight pain; she has gained flesh and strength wonderfully; looks much better than she has ever done since I knew her, and says she has not enjoyed such health for years. Her menses were always profuse.

Jan. 25, 1853.—I saw her a few weeks since, when she told me that her health continued to improve.

THE LONDON PRACTICE OF MEDICINE AND SURGERY.

ST. BARTHOLOMEW'S HOSPITAL.

LARGE SEROUS ABSCESS IN THE THIGH.—EVACUATION. RECOVERY.

[Under the care of Mr. LLOYD.]

Under the name of "lymphatic abscess," Beinl and some other German surgeons have described cases in which large circumscribed collections of a clear fluid having none of the distinctive characters of pus formed in the areolar tissue of various parts at a distance from all serous or synovial sacs. The proposed explanation of their mode of formation is most fanciful, not to say absurd, viz., that the rupture of some lymphatic trunk having taken place, its fluid contents had become extravasated among the surrounding tissues. An hypothesis of this kind cannot be accepted unless supported by very conclusive facts; and, in lack of them, we much prefer to think that these collections originate in an attack of acute, local inflammation, which, modified by some unknown cause, terminates in a manner different from that of ordinary suppuration.

The examples of this disease are undoubtedly rare, but a good illustration of it is afforded by the following case, which has recently been discharged from one of Mr. Lloyd's wards. The subject of it, M. A. Bradbrook, a delicate-looking woman, aged 48, was admitted on account of great general tumefaction of the inner side of the upper half of the right thigh, bulging also somewhat in front. She stated, that the swelling had commenced six weeks previously immediately above the knee-joint, and that it had been from the first very painful, but not so much so as to prevent her pursuing with some difficulty her ordinary domestic avocations. As the swelling extended upwards, there was much throbbing and shooting in the surrounding parts; she likewise suffered from repeated slight rigors.

On examination, Mr. Lloyd thought he could detect a sense of deep-seated fluctuation about the middle of the thigh; but, as it was considered by others to be uncertain, he decided to defer the employment of the scalpel. The whole inner side of the thigh was much swollen, very tense, and tender on pressure. Fomentations were ordered to be applied constantly, and a saline aperient mixture was prescribed.

Ten days after admission, fluctuation having in the meantime become very distinct, Mr. Lloyd made a free incision into the supposed collection of pus at the commencement of the upper third of the thigh. Instead of pus, about thirty ounces of a clear, glairy fluid escaped, tinged slightly with blood, derived from the edges of the incision. This fluid, on standing for a short time, coagulated into a substance like white of egg. A large piece of lint was introduced into the wound, and the limb, enveloped in a fomentation-cloth, was supported by a light bandage. Great relief from pain followed the operation, and in a short time free suppuration was established, unattended, however, by any undue or excessive inflammation.

In a few weeks the wound healed, and the cavity of the cyst had apparently become obliterated, as no swelling returned. The woman regained her health, which had been much reduced, and was discharged about six weeks after admission quite well.

THE LONDON HOSPITAL.

STRANGULATED INGUINAL HERNIA IN AN INFANT OPERATION—REDUCTION—RECOVERY.

[Under the care of Mr. CURLING.]

Notwithstanding the frequency of scrotal herniæ in childhood, yet it must be admitted that cases in which operations for the relief of strangulation become necessary are very rare. The cause of this rarity is probably to be found partly in the fact that the tissues in early life are easily distensible and very yielding, but more especially in the circumstance that the hernia which occurs at this age is almost invariably of the congenital variety, and that, consequently, the channel of communication with the abdomen is

much more free than in other cases. It happens singularly, that several of those instances mentioned by authors, in which an operation became necessary, were exceptions to the general rule, and not examples of congenital hernia. Mr. Lawrence specially mentions this point in the one case which he records, and we shall have to notice it in the following instance, the particulars of which we have obtained from the notes taken by Mr. Bell, the house surgeon of the hospital :—

Alfred Smith, aged 21 months, was admitted at eleven in the forenoon of the 10th of January. His mother stated that for nearly a year he had been subject to frequent protrusion of the bowel on the right side, but that, on all former occasions, she had been able to return it without difficulty. On the morning of the day previous, however, she had found the rupture down, and her best efforts had been unavailing to reduce it. No evacuation of the bowels had taken place since, and the child had suffered from very frequent vomiting. On admission, Mr. Bell at once attempted the taxis, but without success. A warm bath was then administered, and the taxis again applied; again failing, a freezing mixture was placed for a few minutes over the tumour, but with like ill-success. At one p.m. Mr. Curling saw the patient. The strangulation had then existed for about thirty hours, the tumour was of considerable size, tense, and painful. The testicle was felt at the bottom of the scrotum.

The abdomen was tympanitic, and painful on the slightest pressure; the pulse sharp, 140; the countenance anxious. Vomiting had occurred several times since admission. Mr. Curling determined to administer chloroform, in the hopes of being able to accomplish reduction under its influence, having already obtained from the parents permission to proceed at once to the operation, should the taxis again fail. The child having accordingly been placed under the full influence of the anæsthetic, cautious endeavours to reduce the tumour were again made, but not succeeding, Mr. Curling then cut down upon the sac. Having failed in the attempt to return the gut without opening the sac, he made a small incision into the latter at its upper part, in doing which the fibres constituting the stricture appeared to have been divided, for the bowel at once returned without difficulty. The intestine was of a dark colour, and its sac contained a good deal of serum. Two small arteries, which bled, required ligature, after which the wound was dressed in the usual way. Fomentations were directed to be applied to the abdomen, and half a grain of calomel to be taken every six hours. In the evening the child appeared comfortable, and no vomiting had occurred since the operation.

11th.—The bowels not having acted, Mr. Curling ordered a teaspoonful of castor oil to be taken, which produced, in a few hours, free evacuations of a very offensive character. The abdominal tenderness having subsided, the calomel was ordered to be discontinued.

From this date the child's convalescence was steady, and in every way satisfactory.

The wound has now quite healed, (Jan. 27,) and Mr. Curling expresses his belief that the parts are so consolidated that the cure will be radical. As a precaution, however, a small truss has been fitted.

ST. THOMAS'S HOSPITAL.

STRANGULATED INGUINAL HERNIA IN A BOY. OPERATION.—RECOVERY.

[Under the care of Mr. SOLLY.]

A FEW weeks ago, Mr. Solly operated on a lad, aged 14, for strangulated hernia on the right side. We believe that strangulation is even more rare at this age than in infancy. The case presented no other unusual feature, and the patient made a rapid recovery. Previous to the operation, acute and urgent symptoms were present. The reader will have noticed, that in Mr. Curling's case, just detailed, the signs of peritonitis were unusually severe. We are quite at a loss to understand a remark made in one of the best monographs on this subject, to the effect that young children are less susceptible of inflammation than others, and that their herniæ are, on that account, less dangerous. The inference would certainly lead to unsafe practice, and is, we think, founded on a false premise.

THE ROYAL LONDON ORTHOPÆDIC HOSPITAL.

DIVISION OF THE HAMSTRING TENDONS IN CASES OF CONTRACTED KNEE-JOINT.

[Under the care of Mr. TAMPLIN and Mr. LONSDALE.]

IT is always pleasant to be the first to announce a novelty. To record the introduction into practice of new modes of alleviating human suffering is one of the most agreeable duties of the medical journalist. It is, however, not unfrequently a no less important one to advocate the claims to more general adoption of methods which, although they may have lost the charm of novelty, have in its place gained a reputation founded upon extended trials. Our proposed task in the present report is of the latter character. We wish to invite attention to a mode of remedying a very common deformity, which has been well tried by many surgeons, but the merits of which have not yet been fully appreciated by the Profession at large.

It is certainly to be wondered at that those who have written on diseases of the joints should have said so little as they have done on the best means by which a disorganized articulation, the inflammation having subsided, may be made useful to its possessor. The class of cases is a large one, and will, we trust, shortly have its limits much increased, seeing that the surgeon of the present day, aided by his conservative notions, his trust in nature, and his recently-acquired knowledge of several sovereign remedies, is enabled to save, from the last resource of his art, a much larger proportion than his predecessors did. Having lately seen many cases of contracted knee joints very successfully treated at this hospital, we purpose to lay before our readers the particulars of two or three of them, examples, we think, of a very important class.

When an attack of destructive inflammation of the knee-joint manifests a tendency to subside, the surgeon is usually but too glad to allow it to do so quietly, and he deprecates all interference with the position of the limb, from a fear of relighting the inflammatory action. Thus it happens that patients who have the good fortune to recover from this disease without the loss of the leg, usually preserve it in a position which is of but very little use to them in progression. Without attempting to explain the way in which that peculiar displacement is produced, we may allude to it as an almost invariable condition for the tibia in such cases to be drawn backwards and everted, in fact, to suffer *dislocation* backwards and outwards. In addition to this the joint is frequently much flexed, a condition, however, which, unlike the preceding, may be present when no great degree of articular disorganization exists. The amount of eversion and of dislocation backwards may commonly be taken as a rough measure of the extent to which the destructive process has proceeded within the articulation, since neither of them could probably exist without the absorption, partial or complete, of the crucial ligaments. The most extreme example of these conjoined displacements which we have ever seen occurred in a patient lately under the care of Mr. Birkett, in Guy's Hospital. She was a healthy-looking girl, aged 12 years, who had suffered inflammation of the right knee in very early life. The openings of the abscesses had completely healed, and all swelling subsided; but the displacement of the tibia was so great that it allowed of her carrying the foot in the upper part of the front of the opposite thigh, a position in which she habitually placed it. It was thus little inconvenience to her, and could not be seen by others; but, as there was no chance of restoring it to a useful position; and as it appeared desirable to rid her of an encumbrance, Mr. Birkett performed amputation in the lower part of the thigh, from the effects of which she recovered very favourably. Deformities so extreme as this are of course beyond the reach of improvement; but there are numerous cases of less severity, in which a little cautious surgery may restore to the sufferer a very useful limb. The treatment referred to consists in first dividing the tendons of the biceps and semi-tendinosus muscles, and then, by means of a screw apparatus, very gradually extending the limb. Its success is illustrated by the following cases :—

Case 1. William Conies, aged 14, tolerably healthy-looking, was admitted, under the care of Mr. Lonsdale, on July 7, 1852.

His right knee was contracted at an acute angle, as represented in the accompanying wood-cut. The foot was everted, and the tibia partially dislocated backwards and outwards. By forcible extension some movement could be accomplished, but it was extremely little. The lad stated, that the disease had resulted from a "white swelling" in the first year of infancy, which had been attended by long-continued inflammation, but never produced an abscess. He had ever since walked with crutches, and was but just able to touch the ground with the toes of the right foot. All inflammatory symptoms had disappeared some years ago, and he had himself also much improved in health. Mr. Lonsdale carefully examined the joint; the hamstring tendons were found to be tense, and, as there was neither pain nor tenderness in any part, he deemed it a fit case for immediate treatment. On July 8th, the operation of subcutaneous division of the tendons of the semi-tendinosus and biceps muscles was accordingly performed. The puncture in the skin was in each case extremely small, and the limb having been bandaged to a splint which had been previously moulded to its bent position, the wounds were, in the course of a few days, quite healed. On July 13, a week after the operation, the apparatus for effecting extension was adjusted, and without pain the knee was considerably extended. Once in every two or three days, the extending force was increased by turning the rack-screw at the knee, the infliction of pain being carefully avoided.

On Sept. 20, the limb was almost straight. It was found, on measurement, that the tibia of the diseased side was nearly an inch shorter than that of the other. Mr. Lonsdale ordered an apparatus to be prepared for him, consisting of a high-soled boot, to each side of which was attached a flat steel bar, extending to the middle of the thigh, and having, on each side of the knee-joint, a hinge permitting any degree of flexion and extension at the will of the surgeon.

On Oct. 6, he was allowed to return home, being able to walk about, with the apparatus above described, with great ease. The condition of his limb is here represented.

It will be seen that the tibia is still thrown a little backwards, but not so much as to interfere with the efficiency of the support afforded by it to the condyles of the femur. There is some mobility in the joint. Mr. Lonsdale directs him to wear the apparatus for at least a year.

The unusual ease and rapidity with which, in this case, the reduction of the deformity was effected leads to the surmise, that probably the process of intra-articular disorganisation had not proceeded to a very great length. Possibly the whole of the cartilages had not been removed. The fact, that abscesses had never formed supports this conclusion; but, on the other hand, there is, we think, sufficient evidence in the displacement of the head of the tibia outwards and backwards, out of its due relative position to the femur, to prove that at least the ligaments of the joint had been extensively diseased. The loss of equality in the length of the two limbs was doubtless caused by the circumstance, that the tibia of the diseased side had long been perfectly useless. The non-development of unused parts is very constantly observed. In the present case, a powerful argument is derived from it in favour of early operations in similar cases.

Case 2.—Wishing to select our cases from various periods of life, the next which will be adduced is that of Mary Ann Marshall, a fair-complexioned and delicate-looking little girl, aged seven. When two years old she suffered an acute inflammation of the left knee-joint, which terminated in abscesses. These latter broke externally, and have continued to discharge up to the present time. For a considerable period her life appeared in danger, but she ultimately rallied, and the acute stage of the inflammatory process subsided, leaving her knee contracted, and the limb quite useless. When admitted on June 8, 1852, under the care of Mr. Tamplin, there was very little swelling and no pain about the part; a sinus on the outer side of the joint still, however, continued to discharge a small quantity of thinnish pus. The knee was contracted at a right angle, and fixed with but a very slight extent of motion. The tibia was considerably behind the femur; the foot and leg were everted. Mr. Tamplin considering that little or no inflammation existed within the joint, and deeming the small open sinus still remaining as of but little consequence, determined to at once perform the operation of subcutaneous division of the hamstring tendons. Precisely the same steps were gone through as it regards the operation as we have already detailed in the foregoing case. The operation was performed on June 8th, and in December the knee was all but straight. She had in the meantime very much improved in health under the exhibition of the cod-liver oil, and, as a proof that no relighting of the inflammation of the joint had resulted from the operation, we must not omit to state, that the sinus formerly existing had quite healed. The head of the tibia remaining displaced outwards, that is, leaving the inner half of the internal condyle of the femur unsupported, Mr. Tamplin has had a broad strap of webbing passed round it, and fixed to the inner bar of the apparatus. By this means constant pressure is kept against the bone, tending to draw it inwards.

At present, February 10, the position of the bones in relation to each other may be said to be natural, and the patient now walks about with great ease, though of course with a limping gait, on account of there being scarcely any motion in the knee-joint. She has throughout the treatment suffered scarcely any pain.

Case 3.—In our next case, the process of cure has been somewhat protracted, on account, doubtless, of the age of the patient and the length of time which had elapsed since the subsidence of the inflammatory disease. In all other particulars it pretty exactly resembles the preceding ones. Mary Sharp, aged 32, fair complexioned and delicate looking, and bearing the remains of strumous affections of the eyes and ears, was admitted on the 4th of August. Her right knee was contracted at an acute angle, the hamstring tendons being very tense. The tibia was displaced from its due relations to the condyles of the femur both backwards and outwards. There was slight power of motion in the disorganised articulation, around which were the scars remaining after the closing of several sinuses. She stated, that when six years old she had fallen down and bruised her knee, which afterwards became swollen and painful. Abscesses formed, and her general health suffered so severely, that several of the surgeons who were consulted advised the removal of the limb. The abscesses continued to discharge for seven years, after which they gradually closed, and all pain in the part left her. She has never since been able to walk about without crutches, being but just able to reach the ground with the tip of the great toe of the right foot. There was now no existing inflammation of the joint, all swelling and pain having long ago subsided. A few days after her admission, Mr. Lonsdale divided the hamstring tendons, and, a week having elapsed, the extending process was commenced. She has at different times suffered more from pain than is usually the case during this treatment. It is, however, in all probability, much aggravated by her nervous temperament, as no evil effects from over-rapid extension have ever been apparent. Her health has remained good. She is still in the hospital, but the leg is now quite straight, and she waits only to have the boot and apparatus fitted which is to be worn after her discharge.

Our space does not permit of our citing more examples, and, indeed, the above afford a fair specimen of the treatment intended to be illustrated. Several others differing in no important respects have recently been under care with like favourable results; and we may here state, that in no single instance have we witnessed any disagreeable consequences whatever from the operation. The avoidance of these we incline to attribute to the strict observance of two important practical rules. The first is, that after the operation the parts should always be allowed to remain undisturbed, without the slightest attempt at extension being made for a week or ten days, *i. e.*, until the wounds have healed, and all danger of popliteal abscess resulting is past. The second is, that during the treatment, the application of extending power should always be made to stop short of occasioning suffering to the patient. It now remains for us to attempt an answer to the question, what

cases are best suited for this mode of treatment? With the proviso, that all inflammatory action shall have quite passed away, there are probably but few in which benefit might not be expected. That benefit will be great in degree, and rapid in attainment, in proportion as the distortion, is one of flexion merely, and not of actual dislocation; in proportion also to the youth of the patient, and to the recentness of the original disease. The case will be much more hopeful in which a considerable range of motion exists than that in which there is very little or none. Should complete bony anchylosis have taken place, there will, of course, be no probability of doing any good; but we suspect that this is a rare termination of the common forms of strumous disease. At least it has occurred to ourselves to see this condition very seldom in the joints, which are not unfrequently removed by operation, on account of deformity. With respect to the necessity for permitting all inflammation to subside before attempting anything, we may remark, that the presence of a short sinus, which has ceased to communicate with the interior of the joint (as was the case in one of the foregoing examples) need not prevent the treatment being pursued. If it be objected concerning the division of the tendons, that it is not necessary, it can only be replied, that it is unattended by risk, and very much facilitates and expedites the process of cure. There can, we think, be no kind of question as to the superiority of this gradual and all but painless method of accomplishing reduction over the practice adopted by some of putting the patient under the influence of chloroform, and then *vi et armis* breaking down the adhesions in the joint, and at once restoring the displaced bone to its position. Such "rough magic" is applicable only to cases of rheumatic arthritis, in which the contraction and rigidity are mainly in parts external to the articulation. Although occasionally successful in cases of a different nature, yet it is always attended with great risk of setting up a fresh inflammation; and, as we have repeatedly witnessed, is not unfrequently productive of most serious consequences.

LIST OF SCIENTIFIC MEETINGS.

This Evening, Feb. 19.—Royal Institution.—*Subject*:—"On the Philosophy of Chemistry." By Professor A. Williamson. Three o'Clock.

Monday, February 21.—Royal Institution.—*Subject*:—"On Organic Chemistry." By Dr. A. W. Hofmann. Four o'Clock.

Tuesday, February 22.—Royal Institution.—*Subject*:—"On Animal Physiology." By T. Wharton Jones, Esq., F.R.S. Three o'Clock.

Wednesday, February 23.—Royal Institution.—*Subject*:—"On Organic Chemistry." By Dr. A. W. Hofmann. Four o'Clock.

Thursday, February 24.—Royal Institution.—*Subject*:—"On the General Principles of Geology." By J. Phillips, Esq. Three o'Clock.

Friday, February 25.—Royal Institution.—*Subject*:—"On Ploughs and Ploughing, Ancient and Modern." By J. Wilson, Esq. Half-past Eight o'Clock.

Saturday, February 26.—Royal Institution.—*Subject*:—"On the Philosophy of Chemistry." By Alexander W. Williamson, Ph. D. Three o'Clock.

Mortality Notabilia.—The increase of mortality announced in the previous Return appears to have been fully maintained last week. In the week that ended Saturday, 5th February, the deaths registered were 1220; in the week ending 12th February, they were 1235. The effect of the cold weather has been to shorten the lives of more than 450 persons in a fortnight; the number who died in January, weekly, having been less on the average than 1000. In the ten corresponding weeks of the years 1843-52 the average number of deaths was 1054, which, if raised in proportion to increase of population, would give 1159 for the last week. The present Return shows, therefore, that the deaths of last week exceed the estimated amount by 76. In comparing the results of the last two weeks, it appears, that while cases enumerated under "zymotic diseases" have declined from 231 to 212, those under "diseases of the respiratory organs" have further increased from 250 to 312. It is worthy of notice, however, that under one of the heads in this latter class, viz., pneumonia, there is a decrease.

Waterloo.—At this date not one officer of the "Waterloo" Commissariat is in existence on full or half-pay, and only one officer on full-pay of the Medical Staff (Dr. Macaulay, of Kilmainham Hospital), and two Regimental Surgeons, Dr. Mostyn, of the 27th Inniskillen Regiment, and Dr. Young, of the 28th North Gloucester Regiment.

Medical Times & Gazette.

SATURDAY, FEBRUARY 19.

THE NEW MIDWIFERY EXAMINATION AT THE COLLEGE OF SURGEONS.

Whatever differences of opinion upon other subjects may exist among the Journals devoted to the Science of Medicine, upon one point they seem to be unanimous, namely, in condemning the present arrangements connected with the New Midwifery Examination instituted by the Royal College of Surgeons. Not one of our contemporaries has said a word in favour of this obnoxious measure; letters in its condemnation are daily reaching the Metropolis from all parts of the country; and the only parties who raise a feeble voice in palliating its mischievous tendencies are the few persons who are beneficially interested in its operation. The College itself has never uttered a word in its own defence; a fact, indeed, at which we are not surprised, for it has disregarded the well-founded remonstrances of its members on innumerable occasions.

In order to avoid the possibility of a misconstruction of our objections to this measure, it is necessary for us to repeat that we offer no opposition to the institution of a midwifery examination by the College of Surgeons; on the contrary, we have explicitly expressed our approbation of such a step; but we have emphatically denounced, and we still denounce, the attempts made in the fifth clause of the by-laws relating to the midwifery examination, to introduce into the Profession an inferior class of practitioners, under the plausible title of Licentiates in Midwifery, who, upon the strength of a partial, though, perhaps, a fair examination upon one solitary subject, and after an educational course of far less amount than that required by any examining board in the civilised world, will receive the stamp of the College as legalised practitioners.

It has been ingeniously urged by the few persons who have offered apologies for this scheme, that the College never contemplated the creation of an inferior order of practitioners; and it has been stated with truth by a contemporary (who, however, has strongly disapproved the measure), that, as yet, no mischief has been done, inasmuch as all the Licentiates hitherto admitted have been members of the College, or of some other College equally empowered to grant diplomas.

As long as this continues to be the case, we quite agree with our contemporary, that no practical harm is done to the Profession.

In the last batch of Licentiates in Midwifery sent forth by the College, we found the names of several gentlemen who were unknown to us; but the College informs us, in introducing them to our notice, that "the following members of the College, having undergone the necessary examinations, were admitted Licentiates in Midwifery," etc.; and in the daily newspapers we find the same information conveyed in still more explicit terms:—"The following gentlemen, *who had previously been admitted members of the College*, received licences," etc.

We are at some loss to know precisely what this language indicates. It may point to one of three conclusions: either, first, that the College intends to distinguish those who have passed the Examination in Midwifery *only* from those who have passed it being already members; or, secondly, that

the majority of the authorities at the College are thoroughly disgusted with the fifth clause of their by-laws, and wish practically to make it of no effect; or, thirdly, that the clause has been erased and abandoned altogether. If the latter should prove to be the case, we shall be among the first to applaud the governing body of the College for their graceful and timely concession to the wishes and remonstrances of their members; and, as our opposition to this measure arose only from our anxiety for the honour and dignity of the Profession, we shall, in case this obnoxious clause should be repealed, regard the new Midwifery Examination in a very different light to that in which we have hitherto viewed it; in fact, as we have before remarked, the incorporation of a Midwifery Examination *with that for the diploma of membership*, is a step in the right direction, and must call forth general approbation. It is, we have been given to understand, in contemplation to institute an Examination in Midwifery at the Royal College of Physicians, on the occasion of the general examination of members; and, when the importance of this department of medical science is thus recognised by all the leading examining bodies in the kingdom, we may reasonably hope for a great impetus being given to the study of obstetrics by the youth of the Profession.

In making the above remarks, however, we must be distinctly understood as having no information whatever that the College of Surgeons has really abrogated their fifth clause; and if we find that that clause is still allowed to remain, we shall continue to expose, as far as lies in our power, its dangerous tendency, even although no mischief has yet resulted from its operation.

EXAMINATION REFORM.
ROYAL COLLEGE OF SURGEONS IN IRELAND.

Since the publication of our leading article on this subject, a couple of weeks ago, we have learned that a very vigorous opposition has been raised against the contemplated changes in the Irish College. We have also heard that a document is in course of being signed by several members of the College, declaring that they consider the proposed alterations in the Court of Examiners inexpedient and uncalled for. Further consideration of the question only satisfies us of the truth of the principle on which our advocacy of the proposed changes was based. This principle, we again repeat, is, that the most eligible men to fill the office of Examiners in the several departments of anatomy, medicine, and surgery, are those actually and practically conversant with those subjects, and having daily opportunities of not only confirming but advancing their knowledge. This principle is fully admitted in the case of the surgical examiners. Indeed, the absurdity of appointing any but an hospital surgeon to examine in *surgery* would be patent to every one; but, in the election to the anatomical and physiological side of the Court, the principle is wholly ignored. We shall be told that difficulties exist,—that the interests of conflicting schools must be considered,—that the Irish College of Surgeons, unlike the English, is an educational institution, and, as such, has private interests. We say in reply, that we know that there is an abundance of able anatomical teachers in Dublin; there are three places in the Court which may be regarded as anatomical and physiological; would it not be easy to make a rule that not more than one person from each school should fill the office of examiner in any given year? This and twenty similar safeguards could be readily devised to insure the harmonious working of the system. We wish to see the working anatomists examining as practical working men alone can; and we trust to see this yet accomplished, notwithstanding the present opposition.

HUNTERIAN ORATION AT THE ROYAL COLLEGE OF SURGEONS.

The annual Hunterian Oration was delivered on Monday last, the 11th inst., by Mr. Bransby Cooper. The members were received in the new theatre, which was opened for the first time upon this occasion. The new theatre is a great improvement upon the old one, as it is more capacious, better lighted, and better ventilated; nevertheless, it is not such a building as we expected, as it retains some of the faults of its predecessor, and has some inconveniences of its own. Among the latter is a broad passage dividing the space into two portions, and in this space upon the recent occasion were a number of members standing, whose opaque masses entirely intercepted the view of the orator from those who were sitting in the back benches. The President and the Council, with the visiters, had considerable difficulty in reaching their seats through the crowded assembly, but this inconvenience arose only from the still incomplete state of the arrangements, which did not yet permit the use of the entrance by the basement. Among the visiters we noticed Sir Robert Inglis, Sir Charles Clarke, Dr. Paris, the President of the Royal College of Physicians; Mr. Eyles, the Master of the Apothecaries Society, Dr. Addison, Dr. Roget, and many other gentlemen of note. Mr. Bransby Cooper's oration contained an exposition of the physiological views introduced by Hunter, and illustrated by the specimens in the Museum of the College. The relationship was pointed out between animal and vegetable structures, and the sagacity of Hunter was clearly evinced by his remarkable experiments and observations on the growth of wood, the repair of broken shell, the re-union of bone and other analogous processes. The orator, while giving due honour to Hunter for his physiological discoveries, alluded to the brilliant progress made by science in modern days, when the researches of chemistry and the revelations of the microscope have opened new fields of investigation to the philosopher. In concluding his oration, Mr. Cooper made some brief but graceful and eloquent remarks upon some of the members of the College who had been removed by the hand of death, and the orator carried with him the sympathy of the audience in adverting to the amiable character and high professional standing of the late Mr. Vincent; to the loss which science had sustained in the decease of Mr. Dalrymple; and to the laborious and indefatigable researches of Dr. Pereira. The lecture was listened to throughout with the greatest attention, and received at its conclusion with the warmest demonstrations of applause.

DR. MARSHALL HALL.

The conduct of this gentleman has, as we anticipated, occupied the attention of the Royal College of Physicians. In accordance with a Resolution passed at the Censor's Board, a severe reprimand was, a few days since, administered to Dr. Hall by the President of the College.

DRUGS AND THEIR ADULTERATIONS.

The extensive adulterations practised upon drugs have called forth, on numerous occasions, the reprobation of the Profession; and the subject has lately obtained a more prominent degree of importance from the analyses of specimens recently made and published in the Medical Journals. It

is much to be regretted that no efficient supervision has been established over those who profess to compound prescriptions and supply drugs to the public. It may not, perhaps, be generally known, that the Charter granted by Henry VIII. to the Royal College of Physicians, empowered them to visit the shops of apothecaries within the City of London, and to examine and test the purity of the drugs which they compounded and sold. This practice is still, we are informed, regularly pursued by the Censors of the College on four or five occasions every year; and all shops, whether those of apothecaries keeping open shops, or of chemists and druggists, are subject to these periodical visitations. The jurisdiction of the College extends, however, only to the shops situated within the limits of the City,—a circumstance very much to be regretted, when we reflect upon the immense space now covered by our Metropolis. Some check upon the compounders of medicines is undoubtedly necessary to ensure to the public a supply of pure, unadulterated drugs, and we should rejoice to see the powers of the College or of some other equally competent body so far extended, as to embrace not only the City of London and its suburbs, but all the cities and towns in the kingdom. The subject is one of such vast importance as to be worthy of the serious attention of the Legislature, and we trust that the present session will not pass without some remedial measure, among other social reforms, being applied to one of such paramount interest to the sick as that to which we have adverted.

REVIEWS.

A Lecture on the Working of the "Medical Charities Act." By Andrew Ellis, Fellow and Ex-President of the Royal College of Surgeons in Ireland, etc. 8vo., pp. 34. Dublin: Fannin and Co. 1853.

This pamphlet contains the substance of a Lecture delivered by Mr. Ellis, at the opening of the present session, in the School of the Apothecaries' Hall of Ireland, in which he has for some years filled the chair of surgery with much credit. Now, though we cannot but consider this topic as rather out of place in the introductory lecture to a course of surgery, we think Mr. Ellis deserves much praise for the time and attention which he has gratuitously given to inquiries into the operation of the Medical Charities Act, and for his attempts to expose some of its greatest evils. During the course of the past year, Mr. Ellis addressed a "Circular Letter" to about 100 practitioners in Ireland, and the answers which he received contain a very valuable body of information and a long catalogue of the grievances inflicted on the Irish "dispensary doctor" by the working of the new Act, showing that, in the great majority of instances, the position of the medical man has been positively rendered worse by the recent legislative changes, which were introduced (as was stated by the author of the Bill, Sir W. Sommerville,) with the view of ameliorating his condition, the then Irish Chief Secretary considering that the medical officers of dispensaries in Ireland were not sufficiently remunerated for their services. Let us see how far the results of Mr. Ellis's extensive correspondence show that the legislative changes have benefited the great mass of working Irish physicians and surgeons. The two chief questions to be solved in this inquiry are, first, What are the duties of the medical man, as prescribed under the provisions of the Act? Secondly, How are the duties remunerated? Mr. Ellis gives at p. 6 a long extract from the regulations of the Commissioners, from which we condense the following summary:—First, the medical officer shall attend the dispensary on such days and hours as the Committee of Management may direct; secondly, he shall duly and punctually (*sic*) attend upon, either at the dispensary or at the home of the party on whose behalf application is made, as the case may require, and supply all requisite medical and surgical advice and assistance to, every poor person duly provided with a ticket; thirdly, he shall when required furnish a certificate of the state of health of any poor person under his charge; fourthly, he shall duly keep a register (of a certain prescribed form) and lay same before the Committee of Management at each ordinary meeting; fifthly, he shall vaccinate all persons who may come to him for that purpose; sixthly, he shall duly keep an alphabetical index to the medical relief and vaccination registers, and to a case-book, in which he shall enter such particulars as may to him seem necessary; seventhly, he shall lay before the Committee at each ordinary meeting a return (of a given form) of the number of patients attended by him during the previous fortnight, and he shall forward a monthly return of same to the medical inspector of the district; eighthly, he shall lay his report-book before the Committee at each of its meetings; ninthly, he shall, at the first ordinary meeting of the Committee in each month, deliver or forward to the Chairman, a statement of the medicines and medical appliances used during the past month, and of those remaining on hand, with an estimate of the quantities required for the ensuing month; tenthly, he shall furnish the Committee with a separate account of medicines supplied to prisoners or inmates of bridewells or houses of correction within his district, (part of his duty being to attend gratuitously on all such parties when required, and also to certify in cases of lunacy); eleventhly and lastly, he shall make such returns generally appertaining to the duties of his office as may be deemed necessary by the Commissioners, Boards of Guardians, or the Committee of Management. Here is truly a tolerably extensive range of duties, embracing dispensary and domiciliary medication, midwifery included, (some districts, it may be observed *en passant*, have an area of 46,370 acres of mountainous country, a diameter of fifteen miles or upwards, and a population of 6,000,) compounding and dispensing of medicines, (neither apothecary, nor assistant, nor porter is allowed in several localities,) vaccination, bridewell and lunatic attendance, and, to crown all, an amount of work in the way of bookkeeping, reports, statements of accounts, and general correspondence, which would be fair occupation for a clerk at a weekly salary. Of a verity the Irish dispensary doctor has no sinecure—his duties are sufficiently comprehensive; but then, of course, he is paid in proportion. *Audi alteram partem;* and here, following Mr. Ellis, we will let his correspondents speak for themselves. A few extracts will suffice:—

"For twenty-six years I have been superintendent to this dispensary; during that time I had 90*l.* a year, an apothecary, and porter. This being a very mountainous country I suffered much, and got bronchitis, which has made me so delicate that I can hardly leave my house. I have now only 50*l.*, no apothecary or assistant, and much more duty to perform." This is a sad realisation of the hopes entertained of the new Act. What does the Poor-law Commission care for this poor man or his bronchitis either, or his wife and children, or the extent of his duties, which obliges him to keep a horse if he wishes at all to overtake his duties? The Commission will be the gainer when his bronchitis finishes him, for they will most probably have the choice of half a dozen young and active men, with six and twenty more years' work in them.

Another correspondent writes—"For the last seven years I have been Physician to the ——— Dispensary, with a well paid salary of 95*l.* per annum, a respectable and lucrative practice, and the situation of Admiralty surgeon and agent for sick and wounded seamen of Her Majesty's service. I had expended about 300*l.* in fitting up a residence and making arrangements for the comforts of a numerous young family, and considered myself settled for life, when, to my astonishment, my district was divided between the two adjoining ones, and I was appointed to a remote mountain district, fourteen miles from ——, at a salary of 75*l.* a year, without the smallest probability of any private practice whatever; so that you will see how ruinous the Medical Charities Act has been to my prospects."

Another gentleman says:—

"Under the old system, I had a salary of 75*l.* a-year for a district about half the size of my present one, and was not called on by the subscribers to keep a horse; while a promise was held out that the salary would be eventually made better. My district, under the 'Medical Charities Act,' comprises an area of 46,370 acres of mountainous country, 15 miles long and 10 wide, and contains an im-

poverished population of about 6000; for which I receive 50*l.* per annum. As there are no resident gentry, and the guardians are poor, there is little or no private practice."

These few extracts will serve to show how very inadequately the arduous labours of the dispensary physician are remunerated; but he has still other grievances to complain of. Among the greatest of the evils of the present system, and one that indirectly operates against the income of the medical man, is the inconsiderate recommendation for medical relief of a class of people well able to pay for advice and medicine. We know that this is no theoretical grievance, but, on the contrary, a real and actual imposition, and one, too, constantly practised, and often obliged to be tolerated. One of Mr. Ellis's correspondents says:—

"There should be some control over the members of the Committee of Management, to prevent them from recommending unfit objects for dispensary relief. I have got some struck off who had been recommended; but, before I could get this done, I was obliged to attend them and give them the necessary medicines. One landlord told me, that 'all his tenants were dispensary objects.'"

In another letter we find the following:—

"The New Medical Charities Act is shamelessly abused in this district; for I find that tickets of recommendation for advice and medicine, and 'immediate' visits at the houses of undeserving objects,—not poor, but snug farmers, having from five to twenty acres of land, some of them getting 18*l.* or 20*l.* the same week for a horse; national schoolmasters and schoolmistresses, having not only good salaries, but houses, gardens, and lands attached; gentlemen's stewards, servants, gardeners, etc., to whom tickets are issued by my Lord This, and Sir That, and by the Rev. Mr. So-and-so, and by Messrs. Innumerable, members of the Committee of Management, who consider the foregoing recipients fit and proper objects to be placed under the fostering care of 'the doctor,' who may be found, in some places, (in too many, think we,) reluctant, for reasons best known to himself, to expose such flagrant abuses."

These extracts will serve to convey some idea of the condition and prospects of the Irish dispensary and medical officer; and yet the picture is but half drawn; the hardships of particular cases exceed any of those cited, and in many instances the salaries do not exceed 30*l.* per annum. It may be truly said of the Irish physician, that his latter state is worse than his former.

Mr. Ellis recommends an appeal to the Government, proposing that the subject should be taken up by the corporate Medical Institutions. This may certainly be used as an auxiliary, but we confess we should have more hopes from a large general meeting of those actually aggrieved. No man works another's cause well; every man and everybody of men must work with vigour and individual energy for the attainment of any given objects or the redress of any given grievance. We have heard that it is in contemplation to hold a meeting in Dublin shortly; we strongly approve of such a measure if the meeting be large and well attended. Let there be a standing committee appointed, a memorial drawn up to the Commissioners in the first instance. If they refuse to redress the grievances complained of, let the Committee memorialise the Government and pray for a Parliamentary inquiry. Such a mass of evidence as that brought together by Mr. Ellis would have immense weight with any Committee of the House, and, on a full investigation, still more complete and circumstantial evidence could be readily adduced. Mr. Ellis objects to the mode of payment of medical officers of dispensaries, viz., out of the Poor-rates.

"Is it not natural," he asks, "that the guardians, who are themselves ratepayers, should dole out with niggard hands the smallest possible salaries to medical men from whom they are to expect no equivalent?" He suggests that they should be paid out of the Consolidated Fund, a proposition to which we see only this one objection, viz., that if the Government paid the dispensary physicians, they would naturally have the appointments, and hence we would apprehend grave evils.

We hope to see some vigorous and united action amongst the Profession in Ireland; their cause is a just and good one; wisely directed and combined exertions cannot fail to obtain the redress of their grievances.

Two Letters to Charles Dickens on Spontaneous Combustion. By G. H. Lewes. *Leader* Newspaper, Feb. 5th and 12th, 1853.

It is not often that we depart from our beaten track to draw attention to the non-professional periodical literature of the day, though we are at all times happy to do so when matter exists which can be profitably brought under the notice of the readers of these pages. This is eminently the case on the present occasion; Mr. Lewes having, in two very excellent letters, examined the evidence which has been by some authors relied upon to prove the occurrence of spontaneous combustion, and having from this evidence deduced the conclusion,—at which we trust most medical men have long ago arrived,—that such a phenomenon is physiologically and chemically impossible. The incident of the death of the old man Krook, as detailed by Mr. Dickens in "Bleak House," has, we need scarcely say, been the cause of Mr. Lewes taking this subject into consideration, since he wisely considers that such an error promulgated or countenanced by a novelist so universally and deservedly popular is calculated to augment the credulity of the age, if not unnecessarily to increase our stock of false scientific *facts*. There is this much, however, to be said in excuse for the mistake committed by Mr. Dickens, that many dictionaries, encyclopædias, a few physiological treatises, and one or two works on forensic medicine support, the theory of spontaneous combustion; and doubtless there are some few medical men who also believe in the possibility of its occurrence. But, on the other hand, as Mr. Lewes observes:—

"What are medical dictionaries and works on jurisprudence compared with authorities of such commanding eminence as Liebig, Bischoff, Regnault, Graham, Hofmann, and Owen? I only name those whom I know to have pronounced unequivocally on this point, but I believe you will find no one eminent organic chemist of our day who credits spontaneous combustion. When I mentioned the subject to Professor Graham the other evening, he replied, 'There is no more completely exploded error in chemistry. It has been carefully examined, and found to have no vestige of probability.' Dr. Hofmann said the same, adding, that two years ago, on the occasion of the Görlitz murder, the subject was thoroughly investigated by Liebig and Bischoff, who proved, in court, that all the alleged cases were no more credible than were the alleged cases of witchcraft."

After examining the reported cases, and demonstrating their numerous weak points and absurdities, it is well remarked:—

"There is in the human mind an inherent and irresistible desire for explanations, and a naturally facile credulity springing from that desire. We cannot hold the mind in suspense; we hate to admit our ignorance. We insist on overarching the chasm, if it be but with a word. For every unusual phenomenon there is consequently an explanation at once desired and forthcoming. The man who boldly flings forth the word, and satisfies the intellectual craving by even the semblance of an explanation, at once gains facile credence. This is the origin of legends and myths. Man, the hungry logophagist, swallowed the phrase spontaneous combustion as soon as it was thrown out, to explain certain unexplained deaths; and semi-science built up theories to accredit it. Science, when grown older and wiser, saw through it, and eliminated the testimony to certain facts from the additions unconsciously furnished by imagination.

"I utterly reject the evidence, partly because it is bad evidence for anything, but mainly because it testifies to a physical impossibility.

"Let us not deceive ourselves respecting the value of reported cases. You, Dickens, would not believe a whole neighbourhood of respectable witnesses who should declare that the lamp-post had been converted, by a flash of lightning, into an elm tree. No, not if they swore to having seen it. Why? Simply because you would rather believe these witnesses in error than disbelieve the millions of testimonies implied in the establishment of those scientific truths which contradict such a transmutation. Although the notion of spontaneous combustion may not be so obviously impossible as the change from a lamp-post into an elm tree, yet I believe it is really so; and if the testimony of reported cases be allowed to shake our faith in the simple laws of organic chemistry, hereafter to be adduced, on the same ground respectable testimony may shake our faith in the impossibility of a lamp-post becoming an elm."

In the second letter, the evidence of science is very clearly

put forward against that derived from a perusal of the cases, with the effect of proving, as we think,—

"1st. That the human body is not such as to render spontaneous combustion possible;

"2ndly. That there are no known conditions of disease which can make it so;

"3rdly. That there is no possibility of the presence of inflammable gases in the body (save occasionally in the colon); and,

"4thly. That all theories advanced in its favour are in violation of fundamental laws."

Observations on Syphilis and on Inoculation as the Means of Diagnosis in Ulcers and Discharges invading the Genital Organs. By John Crowch Christophers. Pp. 74. London: Churchill. 1853.

The main object of this little work is to prove the efficacy of inoculation as a test of the true nature of a suspicious sore upon the generative organs. If the sore be truly venereal, inoculation performed upon any part of the body will produce a chancre, and secondary symptoms will certainly ensue; if the sore be not venereal, inoculation will not produce a chancre, and secondary symptoms will not supervene. Inoculation may be performed without danger, for the sore thus produced may be easily and rapidly cured. Such are the views entertained by Mr. Christophers, and they seem to be urged by him in a somewhat dogmatic manner. Time and experience, however, are wanting, in this country, to prove their perfect infallibility.

Mr. Christophers advocates the moderate use of mercury in the treatment of syphilis; but he greatly prefers the administration of the iodide of potassium, especially in the secondary and tertiary forms of the disease. The former drug, he says, has produced symptoms often referred to syphilis, and not unfrequently has poisoned the patient; the latter may be almost always employed without any ill effects, and in innumerable cases has produced the most beneficial results.

PROGRESS OF MEDICAL SCIENCE.

SELECTIONS FROM FOREIGN JOURNALS.

ON THE PATHOLOGICAL ANATOMY OF ACUTE ARTICULAR RHEUMATISM.

By Dr. KUSSMAUL.

ACUTE ARTICULAR RHEUMATISM, WITH EFFUSION OF BLOOD UNDER THE PERIOSTEUM, AND NECROSIS OF THE BONES.

A healthy boy, aged 14, son of a labourer, who had knotted fingers from gout, fell ill in March of acute articular rheumatism. The right hand exhibited a red painful swelling, extending over the dorsum from the wrist to the first joints of the fingers; the feet were also swollen, especially on the outer side; the disease was manifestly acute rheumatism. There were the usual symptoms of fever: headache, excited circulation, etc. Venesection gave but little relief; but there was rapid cessation of the fever, and then ensued repeated attacks of epistaxis, lasting at intervals to the seventh day. The blood, amounting in quantity to about two pounds, separated into serum and clot. With the cessation of the fever there was in the wrist increase of the swelling, which became soft and fluctuating. In the course of eight days more the swelling burst, and evacuated a quarter of a pint of pure blood, which separated into serum and clot, the latter being buffed and cupped. A probe struck against the carpal bones of the middle finger. Some days after the swelling near the outer malleolus of the right foot opened, and there were voided several spoonsful of blood. A probe struck against the rough fibula. The swelling in the left foot disappeared during the summer. From the right hand and foot several pieces of dead bone came away. Subsequently, the wound in the hand became cicatrised, and the member was again useful. From the right fibula portions of bone often were exfoliated. The patient, however, recovered the use of the limb.

ACUTE ARTICULAR RHEUMATISM WITH PERICARDITIS AND EXUDATION UNDER THE PERIOSTEUM.

A healthy lad, aged 7½, complained at the end of August of lassitude and sleepiness of fourteen days' duration. Then ensued fever with severe headache, nausea, and foul tongue, and there was painful swelling of the different joints. First came on swelling in the left elbow and in the loins; in two days swelling in both ankles and the right elbow. These different swellings subsided in about two or three days, with the exception of that in the left elbow, which increase so as to involve the shoulder; on the fifth day the whole arm was enlarged from the shoulder to the wrist; the heart's action was feeble; the sounds faint but manifest; pulse 90. In three days delirium ensued; but the patient soon recovered his reason, and complained much of headache and pain in the arm. Next an attack of erythema marginatum spread over the whole body, and in a few days the patient died in violent convulsions.

Examination of the Body.—The left arm was enlarged to thrice its natural size from the shoulder to the wrist. The erythema had entirely disappeared. Within the cranium there was nothing abnormal. In the lower lobes of the lungs there was some frothy blood. In the upper lobe of the left lung there were, under the pleura, three circumscribed, brownish-red, granular spots, the size of a pea or bean, with creamy-white granules, (metastasis.) The pericardium contained about a quarter of a pint of yellow fluid, mixed with clots and flocculent lymph; both pericardial and visceral layers were rough, with a continuous membrane partly injected with blood. In the spleen, there were some granular deposits; the mesenteric and Peyer's glands were enlarged. Upon dividing the skin and the muscles of the left upper arm, a turbid, red, bloody fluid, escaped; the arteries were empty; the periosteum, in the superior half of the upper arm, was loosened and thickened, and contained between it and the bone a reddish, creamy exudation. The shoulder-joint was healthy; the articular cartilages white and natural. There was a similar condition of the periosteum, but to a less extent, in the lower part of the humerus, near the elbow-joint, which, however, was natural, and contained a proper quantity of synovia.—*Arch. für Phys. Heilk.*, XI., 4; 1852.

UPON THE DESTRUCTION OF THE PUERPERAL MIASMA IN LYING-IN HOSPITALS.

By Dr. BUSCH.

The means employed by the author consist in heating the room to a high degree with dry air. This is effected by round iron stoves placed in the centre of the room, and connected with the chimney by metal tubes. The heat can be raised to 50-60° R. (about 155° F.) This must be kept up for two days, during which time all furniture and utensils are to remain in the room.

In March, 1851, puerperal fever invaded the Berlin Lying-in Hospital with remarkable severity; nearly all the patients suffered, and the Institution was closed for six weeks, during which time there was the most careful ventilation and purification. These means proved insufficient. Upon the re-opening of the hospital, all the new patients became attacked by the disease a few days after delivery. Then the author tried the plan here detailed in every room in the house. The effect was surprising; no fresh attack occurred during the whole summer. The same measures were adopted some time afterwards, and with the same success.—*N. Ztschr. für Gebwitsk.* XXXII. 3.

CHLOROFORM AS AN EMMENAGOGUE.

By Dr. GIBSON.

The author relates five cases of irregular, difficult, and suppressed menstruation, in which the menstrual flow came on after short inhalations of chloroform, lasting from twenty to thirty minutes, and the accompanying symptoms entirely ceased.—*Phil. Med. Exam.*, July, 1852.

TREATMENT OF FACIAL NEURALGIA.

By CAZENAVE.

A salve, composed of chloroform, gr. 20; prussiate of potash, gr. 10; and fat, gr. 60, is to be rubbed into the head in quantities equal to twice the size of a pigeon's egg at each application. An oiled silk cap is then to be worn for some hours. The treatment is to be repeated as often as the pain returns. About two-thirds of the cases were cured, and one-third greatly meliorated.—*Rev. Méd. Chir.*, Avril, 1852.

CREOSOTE IN PULMONARY PHTHISIS.

By Dr. VERBEEK.

Creosote has been recommended in cases of incipient phthisis, and in that form of disease called Phthisis pituitosa. Its administration was followed by advantage where there

was no vascular erethism. It exerted no influence upon the urine; there was profuse perspiration and great expectoration; but the latter lost its offensive odour and became much diminished. Some patients took six grains of creosote daily.—*Rev. Méd. Chir.*, Avril, 1852.

BULLETIN OF THE PUBLIC HEALTH.

Some alarming rumours have been in circulation at Paris; we may give our assurance that all anxiety as to the state of the public health is without foundation. Information, upon the accuracy of which we may rely, authorises us to say that the choleriform affections which have presented themselves lately at the hospitals have not exceeded the number twelve during the last six months, and that such is about the usual proportion to other cases at this season. With one exception these cases were slight; the principal symptoms characteristic of Asiatic cholera were wanting, and the patients all recovered. One single circumstance was calculated to arouse public attention, namely, five cases of this nature presented themselves at the Hôtel Dieu upon the same day the week before last. The symptoms, however, yielded to proper treatment. The influenza (la grippe) has prevailed at Paris since the last fortnight of December, and has attacked, as usual, a large part of the population. As usual, too, but perhaps rather more strongly marked in the present epidemic than in any of the preceding, the disease has presented itself under two forms, a pectoral form, and an intestinal form. Under this last form it gives rise to colic, purging, to a prostration of strength most marked, to change in the features, to general loss of temperature, symptoms which recal, in reduced proportions, some of the phenomena of Asiatic cholera. But these accidents yield wonderfully to the employment of some diffusible stimulus, viz., infusions of peppermint and chamomile, and to the administration of opium in draughts or lavements. Opium is most useful in arresting these symptoms, which do not resist treatment nearly so much as these accompanying the pectoral form of "la grippe," the progress of which, usually without danger, it is difficult to stop.

It is very true there are, at the present moment, a great number of sick in the hospitals; supplemental beds have been put into the Hôtel Dieu, and it is feared a yet larger number will be required. This fact arises from two causes. First, the suppression of the temporary hospital of Bon Secours; secondly, the exceeding mildness of the winter, which has permitted the continuance of the immense works now in progress at Paris, and has consequently retained a considerable number of labourers who usually go back at this season to their homes. To resume, in spite of "la grippe," in spite of the crowded state of the hospitals, where there are many cases of typhoid fever, nothing justifies the apprehensions spread throughout the public mind. Asiatic cholera does not exist in Paris. It is retiring daily from central Europe, and every thing confirms us in the hope, which we expressed last November, that the epidemic of Poland and Russia would die in the place of its birth.—*Union Médicale*, Jan. 27, 1853.

HISTORY OF CORSETS.

By M. BOUVIER.

The Academy of Medicine (Séance du 25 Janvier, 1853, Presidence de M. Bérard) feeling with propriety, that no subject affecting the health is below consideration, has given its attention to a report from M. Bouvier upon lady's stays. The work is divided into two parts; the first, now before the public, being the history of stays. The report bears especially upon stays without seams and without a mechanical busk. The learned author, who seems to have ransacked both ancient and modern history for information upon so absorbing a matter, arrives at the following conclusions.

1. The history of the dress of the principal people of antiquity shows that the want of a retentive garment, more or less constricting, round the trunk in the female was felt in ancient as well as in modern Europe.

2. In other times, as now, women have been disposed to overdo this circular constriction, to the detriment of their health.

3. In the history of modern civilisation, one sees after the relinquishment of the ample tunic of the Roman ladies, the figure first simply surrounded in a well-fitting corsage; then inclosed and bound in a sort of cuirass, called "corps à'baleines;" and, lastly, brought out and supported by the present corset, the last form of this special garment.

4. Although corsets, when improperly employed, may be prejudicial, yet, when well made and well adjusted, they have not the injurious effects usually ascribed to them.

5. It is an error to attribute the constriction of the lower part of the chest to the influence of stays. A constriction is normal, within certain limits, in both sexes, and subject to vary from other causes than the pressure exercised by this article of dress.

6. There is no proof that the use of corsets produces deformity of the vertebral column.

7. Not only should motives deduced from æsthetics and from the social destination of woman induce the physician to permit the use of corsets, under proper restrictions, but, moreover, there are many circumstances, such as the volume of the bosom, the relaxation or the distension of the muscular wall of the abdomen, the habitual bending of the trunk, the lateral deviation of the spine, etc., which give formal indications for the employment of this sort of bandage, whether upon hygienic principles, or as an aid to cure certain lesions.

The second part of this contribution to medical literature is to be presented at the next *séance*.—*Op. cit.*

PRESENCE OF PHOSPHORUS IN THE COD-LIVER OIL

By M. J. PERSONNE.

M. J. Personne has arrived at the following conclusions respecting the presence of phosphorus in cod-liver oil:—None of the oils of the liver of the cod contain phosphorus. This metalloid is found in certain preparations as an alkaline-earthy phosphate. The presence of this phosphate is due to the bad mode of preparation of the oils, and indicates their bad quality.—*Commission Précedemment Nommée; Academie de Médecine, op. cit.*

GENERAL CORRESPONDENCE.

THE CONTAGION OF CHOLERA.

[To the Editor of the Medical Times and Gazette.]

Sir,—It will probably be remembered by many of your readers that a most elaborate and excellent report on the fearful outbreak of cholera at Kurrachee, in 1846, was made by Mr. Thom, the Surgeon of the 86th Regiment, and was printed by order of the House of Commons. Mr. Thom has since been promoted, and is now serving in the Mauritius. During the late epidemic of cholera in that island, the Board of Health, of which Mr. Thom was a member, reduced the period of quarantine to fourteen days. For this they were violently attacked by one or two French papers, and the case of the Topaze frigate, which was said to have carried cholera from Ceylon to the Mauritius in 1819, was especially cited by the contagionists against them. Mr. Thom, having access to the official documents in the public office attached to his department, made a careful scrutiny of this celebrated case, and appears to have settled for ever this alleged importation of cholera. He has forwarded to me an account of his search, and some extracts from the Mauritius newspapers, to which he communicated his discoveries, and he has requested me to make the facts known in England.

The entire document would be too long for your columns, but as the discussion is one of considerable importance in the history of cholera, I venture to hope you will find room for a short abstract.

The statement, that the Topaze frigate was attacked in 1819 with cholera between Ceylon (where cholera prevailed) and the Mauritius, and that the disease appeared in this latter island after the arrival of the ship, and after intercourse had taken place between her crew and the inhabitants, appears to have been received in England chiefly on the great authority of Sir Gilbert Blane. There is some reason to believe that the report was first set on foot by the French party, with the view of rendering the English Government unpopular. It now appears, however, from the returns made by the captain and the surgeon of the Topaze, and which are in the Staff-surgeon's office at the Mauritius, that no case whatever of cholera occurred on board the vessel. She left Ceylon healthy; on the voyage she lost four men from chronic dysentery, and landed thirty sick, of whom sixteen were suffering from chronic dysentery, four from hepatitis, and ten from less important complaints. The sick were received into the hospital of the 56th Regiment, and remained mixed up with the sick of that corps for more than a month without the occurrence of any case of cholera. Twenty convalescents were sent to the island of Tonneliers, and remained there entirely free from cholera. Mr. Thom states, in addition, that there are even now persons living in the Mauritius who heard Captain Lumley

and the surgeon state, upon oath, that they had had no case of cholera.

A month before the arrival of the Topaze, a case of cholera had occurred, and was reported by Mr. Trebuchet, a surgeon, and a member of the Cholera Committee subsequently formed. On the 20th and 21st of November, (the Topaze having arrived on the 29th of October,) the disease appeared suddenly in various parts of the town. It did not occur among those who had had intercourse with the crew of the Topaze. Mr. Thom states that the "Medical Board ascertained that not one of the women or persons who daily visited the Topaze, and the men at Tonneliers, were attacked." After prevailing in the town, it attacked the barracks, and ten or twelve days after it had appeared in the town it appeared in the 56th's hospital, where the sick of the Topaze were.

Nothing can, I believe, be more authentic than this evidence. The Topaze brought no cholera, and generated no cholera, but simply ran into a place where cholera was developing.

Mr. Thom mentions, in his interesting communication, that isolated cases of cholera constantly occur at the Mauritius, and that they have done so for several years. Cases also are occasionally landed from the ships arriving with coolies, but no extension of cholera has been known to arise from them.

I am unable to refer now to a report in the case of the Topaze, published by Dr. Kinnis, at present Inspector of Hospitals, and in 1819, serving in the Mauritius, but, speaking from memory, the statements there made are similar to those in Mr. Thom's letter.

With these facts, it appears necessary to exclude from the available evidence on the subject of the contagion of cholera, this celebrated case of the Topaze frigate.

Mr. Thom has forwarded to me a short account of one or two remarkable instances of outbreaks of cholera, and this I transmit to you, in the hope that you will insert the communication in an early number. I am, &c.

13, Harley-street. E. A. Parkes.

CASE OF PSEUDO-MEMBRANOUS STOMATITIS.

[To the Editor of the Medical Times and Gazette.]

Sir,—I am induced to record the following case of ulcerative or pseudo-membranous stomatitis, partly on account of its intrinsic interest, and partly because it seems to bear upon some observations made by Dr. Willshire at a recent meeting of the Medical Society, and reported in your Number for Nov. 27, in which he drew attention to the great tendency there had been in the late (and still existing) epidemic of scarlatina to the production of diphtheritie deposits. Dr. Willshire remarked, "that among the numerous cases of scarlatina which had fallen under his observation, he had noticed a remarkable tendency to diphtheritic exudations, which greatly enhanced the severity of the disease and considerably increased its fatality. This form of exudation not only showed itself on the respiratory mucous tract in conjunction with scarlatina anginosa, but was displayed on any widely abraded surface on the exterior of the body. He had noticed that raw surfaces, such as resulted from blisters, mustard-poultices, or irritating applications, became covered with a pellicular deposition similar to that which appeared in the throat. A remarkable tendency to this peculiar exudation seemed to constitute one of the most striking features of that severe outbreak of scarlet fever which had not yet passed away. But, in addition to this, he had seen examples of similar deposition in patients unaffected with scarlet fever or any other eruptive disease. Numerous examples of aphthoid exudation on the vulva and external genital organs of young women had come under his notice, and he could not help associating this unusual affection with the diphtheritic exudation so frequently complicated with the scarlatina now prevalent."

These cases were chiefly observed on the south side of the Thames, in the vicinity of the Children's Hospital, Waterloo-road.

Mr. J. B. Brown stated that he had also noticed this aphthoid and diphtheritic exudation about the mouth and throat in cases of low fever.

I shall proceed at once to relate the case which came under my observation, reserving to the end the few remarks I have to make upon it.

Mr. D., 62 years of age, of spare habit, regular and abstemious in his diet, had suffered for the last three or four years from frequent attacks of diarrhœa. For these he had occasionally consulted Mr. Coulson, who had afforded him temporary relief only from his troublesome complaint. On the 13th of July last, he sought the advice of Dr. C. J. B. Williams. In the previous two or three months, he had been suffering more than usual from the diarrhœa, and from unaccountable depression of spirits. His general strength was not much affected, and his appetite was good. He mentioned to Dr. Williams, that, on one occasion, he had had —or fancied he had had—a slight attack of gout, which, however, had never recurred. The urine was found abnormally acid. Dr. Williams prescribed for him small doses of the ext. colchici acet. gr. i., with pil. rhei co. gr. iv., every night, and a stimulating and tonic mixture during the day, on the presumption that the diarrhœa might possibly arise from the irritation of gouty or some allied material in the blood. The patient took about three or four of the pills, but they brought on such profuse relaxation of the bowels, that he was obliged to discontinue them. After the subsidence of the attack, he again, on the 30th of July, paid Dr. Williams a visit, and was now ordered to take the colchicum with ext. of poppies, in place of the compound rhubarb pill. He does not appear to have mentioned, that for the previous day or two he had felt a peculiar soreness of the mouth, which had inconvenienced him somewhat. By the evening of the same day, however, the pain had so much increased, that he experienced some difficulty in eating, and at bed-time became so uneasy, that he determined not to take the pills, for fear of aggravating his condition. On the following day, the painful state of the mouth having in no way abated, and feeling now, moreover, generally ill, he consulted his chemist as to the advisability of taking the pills, and was recommended by him to do so. He followed the advice, but passed a night of greater local and general suffering than ever; at the same time, severe diarrhœa set in, attended with paroxysms of acute pain. The next day, August 1, all the symptoms became more aggravated. He took no medicine, but applied warm fomentations to the face, without, however, deriving any relief from them, and, on the morning of the 2nd, I was requested to see him.

I found him very weak and depressed, with a very anxious expression of countenance. The lower part of the face and the lips were greatly swollen; the teeth could scarcely be separated; a constant stream of viscid saliva poured from the mouth, and the breath was highly offensive. My first impression was, that I had to do with a case of accidental mercurial salivation; but a further and closer inquiry soon convinced me that the disease was of a different character, and dependent upon another cause. The salivary glands were large and painful; through the interval between the teeth the tongue could be seen, swollen, sodden, indented around the edge, and covered with a densely thick yellow fur. On everting the lips, a thick yellowish-white pseudo-membranous deposit was found lining the whole surface of the gums, except their edges, which presented a conspicuously livid appearance. The same pultaceous material coated that part of the mucous membrane corresponding to the gums, and also the edges and inferior portion of the tip of the tongue. Here and there were some small spaces uncovered by the deposit, and at these points the mucous membrane was red and spongy, and showed a great tendency to bleed; the gums were much retracted from the teeth, several of which were quite loose. The introduction of anything into the mouth gave great pain, and there was considerable difficulty in swallowing even the smallest quantity of fluid. The state of the throat could not be ascertained, but there was a slight irritative cough and a sense of uneasiness about the fauces. The bowels were much relaxed twelve or fourteen times during the twenty-four hours; the evacuations were quite fluid, but not otherwise unhealthy in appearance.

℞ Garg. sodæ chlorinatæ; ammon. sesquicarb. gr. v.; tinct. opii ɱx., ex mist. camph., 4tis horis; beef-tea, arrow-root, port-wine.

August 3.—Mouth rather worse than yesterday; bowels somewhat less relaxed; restless; no sleep. Same treatment.

4th.—Bowels more relaxed; mouth in the same state.

℞ Confect. aromat. gr. xv., tinct. opii ɱxv., ex mist. cretæ, 4tis horis.

5th.—Better. Mouth less painful and bowels quieter.

11th.—Since the last date the symptoms have been slowly improving; the patient can now thrust his tongue half-way from his mouth; the deposit is gradually separating, leaving behind a superficially ulcerated surface with an irregular margin. The throat can now be partially seen, but presents nothing peculiar except a general redness of surface without any trace of false membrane. The breath is less fetid, and the secretion of saliva is diminishing. Bowels moved from five to six times in the twenty-four hours.

The patient having been throughout strongly impressed with the belief that the attack was produced by the pills first ordered, I thought it but right that Dr. Williams should have an opportunity of seeing the precise nature of the attack before it subsided, and at my request he paid the patient a visit to-day. Ordered tannic acid and opium pills, with a mixture containing chloric ether mist. acaciæ, and mist. camph.

20th.—The patient has been progressing favourably; the deposit is now nearly all gone, a considerable part having been removed with a camel's-hair brush, and the denuded surface painted over with a weak solution of argenti nit. The bowels are still much relaxed; appetite and strength are improving. Has discontinued the former medicine, and is now taking tinct. catechu et opium, ex inf. quassiæ. Not yet able to take solid food; a little sopped bread is all that can be eaten without pain.

27th.—Since the last report the patient has been suffering from severe diarrhœa. Three days since he took, for the first time, some solid food; the same evening the bowels became excessively relaxed, and have continued so ever since.

℞ Cupri sulph. gr. ¼, opii gr. ss. 4tis horis; tinct. catechu, tinct. quinæ, aa. ʒi.; aquæ cinnamomi ʒi., 4tis horis.

The bowels have been much quieter since taking the above medicine, and the general aspect of the patient has improved. There is no tenderness on any part of the abdominal surface on pressure; the evacuations are quite fluid, but of a healthy colour; they contain neither blood nor mucus; there is constant and distressing tenesmus. The tongue is still thickly coated, though cleaning around the circumference. The mouth is quite free from the pseudo-membranous deposit. The gums are still livid at their edges.

September.—Towards the end of this month the patient again saw Dr. Williams. The diarrhœa has continued uninterruptedly since the last date, though to a less degree than before. There is, notwithstanding, considerable improvement of the general condition. Appetite increases; tongue is fast resuming its natural appearance; the gums still retain their livid border, and are much retracted; the taste is perverted, and has been so during the whole attack. Evacuations fluid, from six to eight in the twenty-four hours. Tenesmus less troublesome. Has been taking with benefit acid. nit. dil. ♏xv., tinct. opii ♏x., ex inf. hæmatox., ter die. Dr. Williams ordered salicine, gr. iij.; tannic acid, gr. ij.; bismuth, gr. vj.; tinct. cinnam. ʒj., ex aq. menth., ter die; cupri sulph. gr. ss.; ext. opii gr. j., h. s. The patient took this medicine for two days; but, the bowels becoming more irritable, it was changed to tinct. camph. co. ʒi.; tinct. opii ♏v. tinct. catechu ʒss., ex inf. quassiæ ter die; cupri sulph. gr. ss.; quin. disulph. gr. j.; opii gr. ¼ h. s.

Oct. 6.—The above medicine has been taken since the last date, and with good effect. The evacuations are now reduced to two or three in the twenty-four hours; appetite good; no tenesmus. Begins to take small quantities of solid food. Advised the patient to go to Brighton; and to take tinct. quinæ, tinct. camph. co., aa. ʒi., ex inf. gent., ter die. During the last week, the ankles have been slightly swollen; the swelling is now subsiding; the urine is clear, and presents no trace of albumen.

January, 1853.—The patient is now quite restored; his appetite is good, and he is able to take considerable exercise without fatigue; the gums are still a good deal withdrawn from the teeth, and retain the marks of the recent ulceration; there is a more abundant secretion of saliva than natural; the bowels are still occasionally relaxed for a day or two; the teeth are firmly fixed again in their sockets.

Remarks.—The chief difficulty in the foregoing case is to assign a cause for the attack. This particular form of stomatitis is, as is well known, most commonly met with in children; though even among them it is not very frequently observed in this country. In France, however, it prevails to a great extent, and in some of the children's hospitals commits, occasionally, great devastation. All authors concur in stating that it may arise from either constitutional or local causes, as carious teeth, necrosis of the jaw, etc.; the latter, however, are probably never sufficient of themselves to produce the disease, but invariably act in conjunction with a cachectic state of the system. The disease is also known to be connected with affections of the stomach and bowels, and in adults, according to Romberg, with those of a dysenteric character more especially.

What was the exciting cause of the complaint in the present instance?

It was not mercury; for, besides the fact, that, as far as could be ascertained, not a grain of that mineral had been taken, the character of the inflammation, and the peculiar fetor of the breath, which bespoke rather a putrefactive or gangrenous process than the effect of mercury, were very different from what are observed as a consequence of ordinary salivation. It was not a carious state of the teeth; they were all in a perfectly sound condition, nor was the patient in the habit of wearing false teeth, which are known very frequently to give rise to troublesome inflammation, especially in a bad state of the health. Could the colchicum have had anything to do with it? Dr. Williams thought not. It certainly produced very intense irritation of the bowels, but this had subsided to a great extent before the affection of the mouth made its appearance. Simultaneously, however, with the occurrence of the stomatitis, the bowels again became greatly relaxed, affording a tolerably clear indication, that whatever the cause was, its operation was not limited to the mouth, but extended to a very considerable part, if not the whole, of the alimentary canal. Indeed, the intestinal complication really constituted the most serious feature of the case, and, for some time, put the life of the patient in no slight jeopardy. Dr. Williams suggested, as a probable cause of the attack, a morbid or poisonous condition of the saliva; and doubtless, if any proof could have been obtained that such had existed, it would have been sufficient to account for the phenomena observed; but of this there was no evidence, except what was furnished by the absence of any other reasonable explanation. It may be again observed here, that, even at the present moment, the patient is inconvenienced by a very abnormal amount of salivary secretion. One other cause alone remains to be noticed, and that is the prevailing tendency to diphtheritic exudation. How far did this operate in determining the peculiar character of the attack? At the time of the patient's illness I was not aware of the existence of this tendency, but it appears to me now highly probable that it exercised considerable influence upon the course and character of the disease; and, if it did not actually produce that, it at least essentially modified and controlled it. The patient's health was precisely such as would predispose to the complaint; his strength had been greatly reduced by protracted diarrhœa; he had recently suffered a severe aggravation of the complaint, which had still further debilitated him, and had probably left the whole alimentary canal in a state of great irritation, with its secretions morbidly altered; and in this condition an unhealthy inflammation was set up, which very naturally assumed the peculiar character then generally prevalent. I have given the case rather fully, partly on account of its somewhat unusual character, but chiefly because it appears to afford, in conjunction with the various cases of a similar kind mentioned by Dr. Willshire, a good illustration of the variety of phases a particular form of inflammation, prevailing at one and the same time, may present in different individuals; and because it shows how essential it is, if we would be fully acquainted with the nature of disease, that we should be aware of the type and character it presents at any given period.

I am, &c. E. Wright, M.R.C.S.

5, Kennington-row.

HYSTERIA SIMULATING PERITONITIS.

[To the Editor of the Medical Times and Gazette.]

Sir,—The perusal of Dr. Todd's clinical lecture, on "Certain Nervous Affections, Hysteria, and the like," contained in a late number of the *Medical Times and Gazette*, brought to mind a case that came under my notice in December last, the narration of which, taken in connexion with the subject, may prove interesting.

On the night of Dec. 14th, I was summoned in haste to the bedside of Mrs. A., aged 28, a woman in the lower class of life, suffering from violent pain in the bowels, accompanied by occasional insensibility. On entering the room, I discovered my patient lying in bed, with her knees drawn up, uttering groan after groan, as though in agonising pain, and between whiles imploring me to devise something for her relief. In answer to my inquiries, it seemed she was married, without family, and had not been well for some time. About eight weeks ago she suffered from pain in her chest, accompanied by dysphagia, (possibly globus-hystericus,) for which she had medical advice, and was bled, leeched, and blistered, with no good result. The catamenial discharge occurred irregularly. Her present attack came on suddenly, without assignable cause. The expression of intense pain in the woman's face, and her cries for help, accompanied by a spasm of the whole body, seemed to call for instant treatment. When I placed my hand over her bowels she gave a scream of pain; tenderness excessive; but, on examining more narrowly, it seemed not increased in proportion to the severity of the pressure, nor yet restricted entirely to the abdominal region. The pulse was quick and small, about 100, lacking hardness. The spasmodic symptoms strongly resembled those so faithfully portrayed by Dr. Salter in Dr. Todd's second case, perhaps not quite so severe; but still her contortions at times were horrible and distressing to witness; her one cry being "Oh, my bowels! my bowels!"

Here, then, was a case, in which, as Dr. Todd observes, "a speedy decision on the real nature of the attack is demanded and expected by relatives or friends;" and how important is this decision, both to satisfy their minds and to regulate the immediate treatment.

Dr. Todd has given an able summary of the means of diagnosis. In the present case I had little difficulty in deciding on the nature

of the attack. The patient was of hysterical aspect; the uterine functions deranged; and a key furnished to her real state by peculiarities in the pain and pulse.

I ordered warm fomentations to the bowels, together with an assafœtida mixture and enema.

In the night I was again called up, no mitigation of the pain having occurred. I prescribed a mixture containing tincture of hyoscyamus and camphor, the first dose of which tranquillised her, and next morning, after "a good cry," she was pretty well again.

I am, &c.

HENRY GRAMSHAW, M.R.C.S. Eng., and L.A.S.

Church-place, Tettenhall, Staffordshire.

STATISTICS OF AURAL DISEASES.

MR. WILDE'S REPLY TO DR. KRAMER.

[To the Editor of the Medical Times and Gazette.]

SIR,—Dr. Kramer having thought it necessary to reply to my letter of the 20th November, 1852, says, that "so feeble is the position assumed in that criticism" that his reply "may be quite brief." Now, Sir, to follow the example of my Berlin friend, I shall only occupy your space with a very few observations. Dr. Kramer has, in his letter, published in the *Medical Times and Gazette* of this day, (Saturday, Feb. 12,) fully acknowledged the justice of all my remarks and the severest criticism that could possibly be uttered against his work, for, in the concluding paragraph, he says, "I cannot forbear advising Mr. Wilde," and, by Mr. Wilde, all other readers, examiners, and criticisers of his work, "to lay aside for ever the first edition of my 'Diseases of the Ear,'" by which he alludes to the second German edition, but which appeared as the first English translation in September 1837. Now, this work of Dr. Kramer's having gained for him considerable reputation in England; having, I am free to acknowledge, effected much good in reforming the state of aural surgery in Great Britain; having been admirably translated by Dr. J. R. Bennett; published by Messrs. Longman at considerable expense; and, upon the faith of several laudatory reviews, been largely purchased by the Profession in these countries, I confess I do not think it fair, at the end of a number of years, to come out with a wholesale criticism of his own production, by desiring me, and every other possessor of the work, to lay it aside for ever, and, forsooth, because the following alterations have taken place in a new edition of the same, "as the result of a twelvefold more extended experience," spread over a period of upwards of sixteen years:—

"In both forms of nervous deafness I have almost always found the membrana tympani white, like paper, and opaque. (English Translation, p. 260; 1837.)

"In cases of nervous deafness I have not seldom found the tympanal membrane white, like paper, and opaque." (Last German Edition, p. 722; 1849.)

If Messrs. Longman wish to dispose of any copies of the English Translation which they may have on hand, they can supply the deficiencies by the following *erratum*: For "almost always" read "not seldom."

Having thus disposed of the commercial part of the transaction, allow me to make the following additional remarks on Dr. Kramer's statistics:—When an author modifies, or altogether discards opinions which he formerly entertained and promulgated; and as his new views are the result of increased experience, a more extended field for observation, and calm consideration of the opinions of others, we cannot but honour his candour; but when statistical statements are reiterated and put forward to the Profession as facts, which were not only compiled under an erroneous idea, but absolutely formed a portion of the basis of a work which, although it gained considerable reputation, the author now advises us "to lay aside for ever," I think we have a right to ask that author to go back upon its materials, and to re-arrange his figures from the date when he first began to modify his views. When Dr. Kramer's first English edition appeared, in which the "almost always" whitelike paper was the condition of the membrana tympani, he stated that out of 300 cases of diseases of the ear from all causes, 152 were cases of "nervous deafness." In 1845, he gave to the world the statistics of 2,000 cases of diseases of the ear, in which nearly the same proportion obtains, for 1,028 were attributed to "nervous deafness;" but, in 1851, he gives an account of 2,000 additional cases, in which the former proportions are considerably modified, for only 1,875 were attributed to "nervous deafness:" and I entertain a strong hope that Dr. Kramer will live long enough (and I wish him long life and success) still further to modify his views, and, instead of "not seldom," to insert that he "very seldom," or "never," "found the tympanal membrane white like paper and opaque," in cases of nervous deafness.

Dr. Kramer gives three reasons in support of his theory, which, after so many years of experience, he has advanced to account for the white paper-like appearance of the membrana tympani, which he, at first "almost always," and afterwards "not seldom," found in the membrana tympani in cases of nervous deafness.

1. How did Dr. Kramer know that not one of these cases ever had been affected with inflammatory action? He did not examine the ears when the disease first commenced; pain not being experienced by the patient, attention was not attracted to the part. Suppose I was to show Dr. Kramer a dozen cases of impaired vision, with discoloured and partially disorganised iris, in which the posterior surface of that structure was adherent to the front of the lens, in which the sclerotic was congested and partially thinned, so that the choroid appeared through in several spots, in which there had been during the progress of the disease little or no pain, and but slight external vascularity. Or again, cases of opaque cornea, the result of strumous cornitis, in which there is often very little pain experienced, would Dr. Kramer undertake to say that the organ "had never been previously affected by any inflammatory action?"

2. The collapsed state of the membrana tympani, which he says attends the opacity unconnected with nervous deafness, he himself formerly laughed at, and criticised with extreme severity all those who entertained such opinions.

3. The want of ceruminous secretion and dryness which Dr. Kramer considers a diagnostic of nervous deafness is a very old phantasy indeed, and totally unsupported by modern investigations. I believe it to be the result of the same inflammatory action which affected the tympanum and its membranes, having extended to the lining of the meatus and ceruminous glands, and consequently impaired the functions of the latter. I may mention a fact worthy the attention of Dr. Kramer and such of your readers as believe that deficiency of cerumen is a symptom of nervous deafness: that I lately examined the ears of a number of cogenitally deaf and dumb persons, and found that the secretion of ear-wax was just as plentiful as in the same number of persons with healthy ears. With respect to Dr. Kramer's theory of accounting for the opacity of the membrana tympani by "impairment of the vegetative process," I really am unable to understand it.

In conclusion, I have but to reiterate my former opinion, in which every day's experience confirms me, that we have no right to set down to the head of "nervous deafness" any case except where the membrana tympani, tympanal cavity, and Eustachian tube are, as far as our means of diagnosis enable us to judge, free from disease, and do not present morbid changes such as those I have alluded to; and I must repeat my previous assertion, that, if the materials for statistical tables have been collected "for any special purpose, or to support any preconceived theory, such circumstances naturally influence the value to be set upon all subsequent arrangements, no matter how ingenious."

I am, &c.

Dublin. W. R. WILDE.

VACCINE FROM THE COW BY INOCULATION.

[To the Editor of the Medical Times and Gazette.]

SIR,—My attention having been directed to a paper "On the Relations of Vaccination and Inoculation to Small-pox," read by Dr. Waller Lewis to the members of the Epidemiological Society, and reported in the *Medical Times and Gazette* of the 15th of last month, I shall feel particularly obliged if you will allow me space for a few remarks in your next publication. One of the questions proposed for discussion in Dr. Waller Lewis's paper was, Can a systematic supply of fresh vaccine be kept up by artificially inoculating cows? As I presume the object of the Society is to obtain all well-authenticated information, (even though the individual supplying it might not be a member,) I take the liberty of answering the question, by stating that I have proved the fact, that vaccine can be produced by inoculating the cow with small-pox, and that I have kept up supplies in that manner for more than twelve years. Some doubts having been expressed at the meeting on this subject, I shall proceed to offer such evidence as has resulted from my own experience. Before commencing, it would be as well to state, that so far back as the year 1836, circumstances occurred which considerably weakened my confidence in the old vaccine; and, suffering in my own person from a severe attack of small-pox after being twice vaccinated, I was desirous of testing the members of my own family with vaccine from a new stock, and, finding this difficult to obtain in the ordinary way, I tried the experiment of inoculating a cow for that purpose on the 13th of December, 1840, with small-pox supplied

by Mr. Burrows, surgeon of this town. The idea originated from a pamphlet, written by Mr. Pruen in 1807, entitled, "A Comparative Sketch of the Variolous and Vaccine Virus," in which the opinion of a Mr. Birch is quoted, "that cow-pox was nothing but small-pox transmitted through the cow. In this experiment I succeeded. I then invited several medical men to inspect the vesicle on the cow, and they all agreed in its genuine character. From the matter taken from the cow I vaccinated one of my own children, and produced the true vaccine vesicle. My expectations were answered. Other children were vaccinated from the matter taken from my child, as well as with that taken from the cow, and the results were equally favourable. More than twenty medical men examined my own child during the progress of the vaccine vesicle, and many of them requested supplies of lymph from its arm, in order to ascertain its effect on others under their care. So highly satisfied were these gentlemen of the quality of the new vaccine, and the proof I had given of the means of producing it, (a fact already established by Mr. Ceely, of Aylesbury, but which at that time I was unaware of,) that by a strong solicitation I was induced to continue these experiments. Having cows of my own which I could appropriate to this particular purpose, and living in a large town where the small-pox is not unfrequent, I have repeated these experiments more than 300 times, and 28 successfully. With the vaccine from this source, I have myself vaccinated more than 12,000 persons, and during one month last year I supplied 800 charges of this matter in Brighton alone, besides that which I distributed to medical practitioners resident elsewhere. The substance of this letter was communicated to the Epidemiological Society, in July last, by the desire of Dr. Seaton, honorary secretary, but I suppose overlooked. In conclusion, I beg to say, I shall be most happy, if required, to give reference to several medical practitioners in Brighton who have had ocular proof of the vaccine disease artificially produced on my cows, also to others who have used this vaccine lymph by preference from five to ten years, and also to give proof that my lymph has been tested by subsequent small-pox inoculation without effect. Although I have endeavoured to show that it is possible to produce vaccine in this way, and keep it up, it is nevertheless my opinion few private individuals will be found willing to devote the time and attention these uncertain experiments require. I wish to add this remark, that in all my experience I have never seen any dangerous pustular disease produced on the cow from small-pox inoculation. My results have been true vaccine or nothing. I am, &c.

Brighton. JOHN BADCOCK.

MEDICAL ETHICS.

[To the Editor of the Medical Times and Gazette.]

SIR,—Much has recently appeared in your columns relative to the degradation of the title of M.D., but I think none of your correspondents have viewed the matter in its proper light.

Now, Sir, to say that a General Practitioner, by using the title of M.D., degrades that title, implies that the office of the ordinary medical attendant is incompatible with the character of a gentleman; in fact, that although he occupies a prominent position in society, and is looked up to as an authority in scientific matters, he is no gentleman, and, consequently, if he possess a degree in arts or medicine, he must either let it be in abeyance, or forsake his dishonourable career. The time is not far distant, when, if a medical man desire a second opinion, he will consult a colleague, not because he happens to be called "Doctor," not because he possesses a different legal status in the Profession to his own, but because he is a man of great talent and experience, and his opinion is worth having.

This is precisely what happens in France. There the great bulk of the General Practitioners possess the higher title, and are Doctors of Medicine, but they nevertheless frequently seek the assistance of such men as Chomel, Rostan, and Louis, because they are regarded as authorities in medical matters, although their legal medical qualification is the same as that of the General Practitioner whom they are summoned to meet.

I lately resided in a seaport town where homœopathy and other like absurdities are flourishing. Now, in this town, there are scarcely two medical men who are on good terms with each other, and one great source of discord is the assumption of the title of M.D. by one or two General Practitioners, who have undergone severe ordeals to obtain it. A B, a Member of the College of Surgeons, was solicited the other day to give a vote for C D, who was a candidate for a public appointment, for which he was particularly well qualified. A B declined, solely upon the ground that C D had caused "Doctor" to be prefixed to his name on his brass-plate. Now, to my mind, it would not have been more absurd if he had objected to him upon the ground that he wore a white hat or chose to drive a piebald pony. I may add, that the same A B who declines to recognise the gentlemen who have the triple qualification, is on excellent terms with some two or three apothecaries who assume the title of surgeon without having any right to it, and he is also the intimate friend of an M.R.C.S. who dispenses medicines without the Hall licence.

I need not remark, that the hemœopaths are quite delighted to see these inconsistencies among the followers of legitimate medicine, as tending to bring "grist to their mill." Pray, Sir, wield your powerful pen, and, in justice to the large body of the rising medical generation who are graduating at the London University and elsewhere, set this matter for ever at rest; for we cannot admit, that, by exercising our noble and godlike Profession in all its branches, we are bringing discredit upon our degrees, for the motto of the medical man should be, "*Medicus sum et nihil in natura a me alienum puto.*"

I am, &c. MEDICIST.

[To the Editor of the Medical Times and Gazette.]

SIR,—In looking over the advertisement-sheet of the *Pharmaceutical Journal*, I found the following advertisement:—"A Medical man, who has resided in London upwards of thirty years as a general practitioner, would be willing to give advice for two or three hours, twice or three times a week, at a respectable chemist's, on terms of reciprocity." Now, Sir, here is a man of thirty years' standing, for the sake of a little money, degrading himself by leaguing with a chemist to give advice (perhaps gratis) to his patients, and thereby reaping a rich harvest for himself and the chemist above what his more honourable and conscientious brethren would scorn doing. I have heard of many ways of obtaining money, but a case like this I never heard of before. Can we uphold ourselves in our truly honourable profession, while such fellows as this exist? What is the use of one-half trying to elevate themselves and their profession, while the other degrade themselves in every possible way? Some fifty years back a surgeon was looked upon as a gentleman, but now the case is greatly reversed. I am heartily glad that the examinations at both College and Hall are getting stricter, and, therefore, those that do pass will perhaps be both learned and gentlemen. Much do I feel inclined to say upon the subject, but time will not permit, and I should not have troubled you this much had not I known that you are ever ready to uphold the honour of our Profession.

Nottingham. I am, &c. A. L. W.

DRILLING THE ANTRUM.—DISEASE OF THE TEETH.

[To the Editor of the Medical Times and Gazette.]

SIR,—Like "Nemo," I was interested in the case recorded by my friend Dr. Inman, and, as I have had the antrum drilled for the evacuation of pus, my object in writing is simply to assure that gentleman that the pain is not so great as the removal of a tooth. I need not enter into the particulars further than this, that exposure to cold produced inflammation in the antrum, with severe toothache, pus formed, and for several months was discharged by the nares. There was no difficulty in the diagnosis. It was an abscess in the antrum, with no prospect of cure till the matter was evacuated and prevented accumulating. A skilful dentist removed a molar, and the bone was easily drilled, as the matter had softened its structure. I made a plug with gutta percha, by which the opening was for some time preserved from closure. The antrum was frequently washed out by means of a syringe, and a radical cure was effected. Had "Nemo" followed the advice of the dentists first consulted, he would have been spared much suffering, and found the drilling of the antrum a very simple operation. I am, &c. T.

Liverpool.

MEDICAL REFORM.

[To the Editor of the Medical Times and Gazette.]

SIR,—Before I resume the subject of the New Medical Reform Bill, allow me to thank you, in the exercise of your editorial functions, for the correction of my last week's letter, by omitting that passage which, I am pleased to find, was founded upon a misconception.

In continuation, I now beg to suggest an alteration in the construction of the third clause, which provides for the appointment of a Medical Council in England. I propose retaining the numbers as at present (twenty-one), and that to the Regius Professor of Medicine in the University of Oxford, the Regius Professor of Physic in the University of Cambridge, and the representative sent by the Senate of London University, there be added the President

of the Royal College of Physicians of England, and three others chosen by that body; the President of the Royal College of Surgeons of England, and three others chosen by that body; the President, or Master of the Society of Apothecaries, and nine general practitioners, Licentiates of the Apothecaries' Company, and Members of the College of Surgeons; to be appointed in the first instance by the Apothecaries' Society, and afterwards by the general body of the Profession having the double qualification; voting papers being issued by the Registrar twenty-one days prior to the election; one-third of the members of the Council thus chosen by the College of Physicians and Surgeons and the Apothecaries' Society to retire annually in rotation, but to be eligible for re-election.

One of your correspondents, on the 11th of December last, calls your attention to the 13th Clause, and asks very justly, will it be fair towards the General Practitioners to place every one in the registry upon a common level, and thereby give those possessing a single qualification only, the same rights and privileges with their industrious neighbours having double titles? I think not, and hope some means may be devised to remedy this defect. If the fee of 5s. for being placed upon the Annual Register is sufficient to meet all the expenses for carrying this Act fully into effect, I do not think the fee of five pounds imposed by the 14th Clause, to be paid to the Council for granting the licence to practise, is sufficiently ample. The Apothecaries' licence is higher. Why, then, when we are demanding a more elevated standard of education for the Profession, should we expect, commercially, to pay a less sum for it?

With regard to the Apothecaries' Society, should the proposed Bill become law, what is to become of it? No reference being made in the Bill to the existence of such a body, except in the 1st Clause, which repeals the statutes. Surely it is never intended, after the general good that has accrued from its salutary regulations, to pass it over unnoticed. Should the Act of 1815 be thus swept purposely from the Statute-book, it will be necessary to introduce into the present Bill an apprenticeship clause, or something analogous to it, or we shall open the door and admit druggists' apprentices and others into our ranks, whose previous education disqualifies them from becoming professional men. It has been a fashion of late, to decry the apprenticeship clause of the Apothecaries' Act, but I really cannot see what ground there is for complaint. Is there any profession that does not require pupilage or clerkship? And is our own to be acquired with less difficulty than law or divinity? Certainly not. The manipulations of our craft can only be obtained by actual practice under the eye and direction of a master; do not, therefore, let us give up the substance for the shadow, but insist upon a short apprenticeship, or pupilage, (if the former name be objectionable,) with a good preliminary education. Before a clergyman can enter the church he must have received a university education, and, after being ordained a deacon, before he can be admitted into full orders and made a priest, he must be licensed to a title, and serve as cure of souls some parish two years. A lawyer, also, must be articled for a given time to his employer before he can be admitted a student at Lincoln's Inn or the Temple, therefore I can see no reason why we should abandon this useful, necessary, and universal practice. I am, &c.

A General Practitioner, M.R.C.S. and L.A.C.

Norfolk.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY

Mr. Hodgson, F.R.S., President, in the Chair.

HYPERTROPHY AND PROLAPSE OF THE TONGUE.

By GEORGE MURRAY HUMPHREY,
Surgeon to Addenbrooke's Hospital, Cambridge.
[Communicated by James Paget, F.R.S.]

Margaret K., aged 11, was admitted into Addenbrooke's Hospital in May, 1847. When between two and three years old she had sore throat and hooping-cough, for which powders were given, which made the mouth sore and the tongue swollen. During a fit of coughing, the swollen tongue was protruded from the mouth, and remained so, continuing to increase in size to the time of her admission. At this time the tongue measured three inches and a half from the upper lip to its tip; one inch and a half from the lower lip to its tip; from the angle of the mouth round the sides and tip to the opposite angle six inches and a quarter. The circumference of the widest part six inches and a half. When drawn into the mouth to the fullest possible extent, the measurement from the upper lip to the tip was two inches. It was soft and supple, without ulceration or trace of inflammatory or other disease, except simple hypertrophy. The papillæ were enlarged, and separated by deep clefts, giving to the mass a warty appearance; this extended, in a less degree, to the part within the mouth. The colour was nearly natural; the mouth was large, the lower lip everted, and the angles depressed. The enlarged orifices of the sublingual gland were situated in front of the edge of the lip. The saliva was continually dripping, the quantity amounting during the day to more than half a pint. From constant pressure a curvature had taken place in the lower jaw, so that a wide interval existed between the incisors and bicuspids of the two jaws. When the molars were in contact this interval measured nearly two inches. The lower incisors and their alveoli were horizontal; the teeth encrusted with tartar; mastication could be effected without interference with the protruding organ. The os hyoides was in its natural position; the speech indistinct but intelligible; she suffered no pain. The author resolved to remove the protruding portion by the bistoury, which was passed a little to the left of the mesial line from below upwards, and a flap made on the left side by cutting forwards and outwards. The middle part was then cut through, the ranine arteries secured, and the operation completed by cutting out a flap on the opposite side. The flaps were brought together, and maintained by two deep stitches. The hæmorrhage was not very great, and was easily restrained by the ligatures. Some swelling followed the operation, which was subdued by frequent rubbing and fomentation, and the wound healed. The lips could not at first be brought together, and the thick stump could be always seen, though it never protruded. After a few days, however, the mouth could be closed; the teeth and jaw soon began to assume their natural position. This was facilitated by the use, during several hours each day, of an apparatus which made pressure on the chin, and the deformity was at length nearly entirely removed. The tongue became much lessened during the first few months after the operation, and then remained stationary. Two years after the operation, the only defect observable was a slight thickness in her speech. In the summer of 1852 she remained quite well.

A nearly similar case is then related, which occurred in the practice of Mr. Crosse, of Norwich, in 1837. The patient, a female six years old, had at birth a ranula, which was opened by a surgeon; the tongue afterwards enlarged, and hung from the mouth, no treatment being adopted. She could articulate intelligibly. Mr. Crosse was induced, on reading the paper by Lassus, to try the treatment by compression. After seventeen days' continuance of pressure, by means of a bandage soaked in solution of alum, the tongue was so much reduced as to be capable of return within the mouth. After this a bandage was merely passed over the mouth, which was worn for about ten weeks, and then an elastic strap was worn, which passed under the chin and over the head, to approximate the jaws. Four months after the operation she was made an out-patient, with directions to continue the use of the chin-strap. Four months after she was re-admitted, with the tongue protruded to nearly the same extent as at first. The same treatment was adopted, and in five days the tongue was again returned. Nearly a twelve month afterwards, the child was sick and feverish, and the tongue was again protruded, and again reduced. From that time no further protrusion took place, but the tongue remains thick; the jaws are in their natural state.

The author saw another case in a woman aged 46, a patient of Mr. Ormerod, at Oxford; the general characters the same as in the two former.

In all these cases, the author observes, the disease is of a very simple nature. Examination of the amputated portion in the first case showed that nearly all the tissues had participated in the change, which was that of simple hypertrophy. It was not quite clear, however, that the muscular tissue had undergone any change; but the fibres were arranged in coarse bundles. In all the affection was to be traced, in the first instance, to inflammation; the depending position of the organ, the constriction of the lips, and other causes, combining to promote the enlargement, and prevent the cure which takes place in ordinary glossitis. The author then gives his reasons for preferring amputation to other modes of treatment. He agrees, however, with Lassus, that in early cases compression is the proper treatment. Few instances of the disease have occurred in this country. A case was treated successfully by Sir A. Cooper by ligature. Mr. Syme removed the protruding portion, in another case, by the knife; but the patient died of inflammation of the tongue and parts about the larynx. Mr. Liston mentions a case in many respects similar, but in which the parts were more vascular, and were the seats of severe hæmorrhages. He tied both lingual arteries; inflammatory

swelling supervened, followed by sloughing. A ligature was then applied; but the system became disordered, abscesses formed in various parts of the body, and the patient died. The affection was long ago described by various authors, and copious notes are appended by the author referring to these descriptions. The best account is by Lassus, whose description has been generally followed. He opposes the practice of removing the protruded part, and strongly recommends pressure, even in the most inveterate cases. He observes that the malady has never been known to undergo a spontaneous cure; but that, on being returned into the mouth and retained there, the swelling of the organ gradually subsides. A short account is given of three cases, described by Lassus, which were successfully treated by this method. The author observes that all the recorded cases present great similarity, and that the disease is one of sufficiently definite character to merit special notice. It sometimes originates in an inflammatory affection, but often appears to be independent of such a cause; usually it commences in early infancy, or is congenital. If early attended to, it admits of an easy cure by compression; if allowed to take its course, the prolapsing organ increases, at first in greater proportion than the growth of the child, but after a time it becomes stationary, or grows only with the general growth; even in the most aggravated cases a cure may be hoped for by long-continued pressure. Spontaneous cure rarely, if ever, takes place. The operation of removal is not attended with much danger, and the remaining part of the tongue shows no disposition to enlarge again. In no case does the stump appear to have shrunk below its proper dimensions. The displacement of the incisor teeth, and the altered form of the jaw, form an important feature in the disease. The same change takes place, in some degree, from the contraction of the cicatrix of a burn in front of the neck. It increases the difficulty of effecting cure by compression, as the tongue, during sleep and at other times, has the tendency to protrude, owing to the want of support; and the presence of the enlarged tongue in the mouth interferes with the return of the teeth and jaw to their natural position. When the prolapsed portion is removed, these parts quickly recover their natural situations. The author refers to twenty-six cases, of which seven were treated by ligature, seven by compression, and twelve by ligature. In all a cure was effected except in Liston's and Syme's; in Siebold's the child died of fever during the recovery.

APPENDIX TO MR. HUMPHREY'S PAPER ON HYPERTROPHY OF THE TONGUE;

BEING THE ACCOUNT OF A CASE OF THAT DISEASE WHICH WAS SUCCESSFULLY TREATED BY LIGATURE.

By T. HODGSON, F.R.S.
President of the Society.

Harriet H——, aged two years, was admitted into the Birmingham Hospital on the 15th of April, 1833. The tongue was enormously enlarged, hanging out of the mouth, and reaching below the chin. It fills the orifice of the mouth, and doubles down the under lip, which is always in contact with the chin. Within the lips it presents no unnatural appearance. There is an evident constriction where it has pressed against the teeth and lips. Beyond this, it is enlarged both in breadth and thickness, measuring two inches and three-eighths across, and rather more than two inches from the lip to the extremity. The child was born with a large tongue, which seemed to increase after a leech had been applied to the tip. When first seen by the author, about a year before, she was in bad health; the whole surface of the tongue was inflamed, excoriated, and extremely irritable; and believing that she would not live, he did not advise any operation. Her health, however, improved, and at the date of her admission, she was as strong as infants of her age generally are. The projecting part of the tongue was of a deep-red colour, dry and rough on the upper surface, where scabs had formed in places; the papillæ were raised. She could suck as well as other children, and ate and drank as well; she could talk at sixteen months, and articulated as clearly as other children of her age. The anterior part of the lower jaw had been pressed into almost a horizontal position, together with the incisor teeth. On the 20th of April, the protruding portion was included in ligatures. A strong, curved needle, armed with a double ligature, was passed through the organ in the median line, a little distance within the mouth, and each ligature then tied as far back as possible, so as to leave a kind of tip. She did not suffer so much as was expected. She passed a quiet night. The next day the protruding portion was cold and purple. In the course of the day the tongue, anterior to the ligature, became warmer, and blood oozed from the surface on slight abrasion. Fresh ligatures were applied, which stopped the bleeding, and the parts again became cold. On the following evening some warmth returned, and on rubbing the surface slight bleeding came on. The ligatures were renewed as before. On the 23rd, the slough had nearly separated; there was no inflammation in the mouth, nor constitutional disturbance. Next day, the slough was removed by cutting it away anterior to the ligatures. The tongue was quite within the lips, but very thick in the horizontal direction. The altered shape of the lower jaw prevented its being brought into contact anteriorly with the upper. On the 28th, she left the hospital. Two years afterwards she was again seen; her health was then good. She could talk and eat without the least inconvenience. The tongue had undergone no morbid change; the pointed end or tip was thick, and stood up in the mouth, but caused no pain or inconvenience. The lower jaw still projected, and the front teeth of the two jaws could not be placed in apposition.

Mr. Solly said he was convinced the disease described by Mr. Humphrey was rare in London, as he had not seen an example of it in St. Thomas's Hospital during an experience of thirty years. He regretted that his information was entirely negative, but he thought it would be interesting to the Society to know that the disease was by no means frequently met with, a fact which he thought the circumstance he had mentioned would sufficiently establish.

Mr. Bowman thought there were some points in the pathology of this peculiar affection of the tongue which it might be interesting to consider. The disease ought not to be regarded as a mere engorgement of the lingual tissues from chronic inflammation, but rather as an hypertrophy of the component structures of the tongue both muscular and mucous. Now, in this instance, the hypertrophy of the muscular tissue did not proceed from its usual cause—increased action, for the movements of the tongue were neither so active nor so easily performed as before, but from a cause entirely different, one which merited attention, as he thought it might furnish the interpretation to other examples of hypertrophy, at present imperfectly understood. The microscopic examination of the portion of tongue removed by Mr. Humphrey proved that its tissues were not merely swollen or distended by inflammatory infiltration, but genuinely hypertrophied, a fact which could not be established in the case treated by the President, because in that instance the application of the ligatures destroyed the vitality of the parts before their separation. Now, this hypertrophy resulted, he believed, from vascular congestion, itself dependent on an obstruction to the returning blood. The tongue becoming swollen, in the first instance, from congestion or inflammation, protruded from the mouth, and could not be again drawn in; in this condition it was forcibly pressed on by the jaws and teeth, and thus was kept constantly gorged with blood, the superabundant materials of which were consumed in increasing the bulk of the tissues,—in originating, in short, that hypertrophy whose existence had been established by microscopic inspection in Mr. Humphrey's case.

Mr. Lloyd concurred with Mr. Solly in thinking the disease must be of rare occurrence, as, during a longer experience than that gentleman, he had never met with an instance of it. He thought, however, that the treatment most suitable in such cases formed a very important feature in the subject. In Mr. Humphrey's case, the protruding portion was removed by excision, but there were other remedies equally efficacious, and, in his opinion, preferable to the knife. He thought the part might be destroyed by the application of a ligature, or by caustic, with less danger of hæmorrhage than after amputation. He had seen many examples of cancer of the tongue treated by caustics with an invariably satisfactory result, the diseased portion having been completely destroyed without the risk of bleeding; and if a case analogous to that which Mr. Humphrey had related were brought to him he should be disposed to extirpate the protruding portion by ligature or caustic rather than by amputation.

The President remarked that he had seen no other case of the disease besides the one particulars of which had been furnished by himself to the Society, nor did he know that another example had been met with till he became acquainted with Mr. Humphrey's paper. When his own case occurred, he searched through various surgical authorities, both old and new, for an account of a similar instance of disease, but without success; he could find no records, nor any description of such an affection, except that given by Lassus; he thought, therefore, that the Society were much indebted to Mr. Humphrey, not only for the narration of his own case, but also for the copious information concerning the affection collected by that gentleman from surgical works. He was unable to speak from personal observation concerning the nature of the pathological changes, as in the instance which fell under his notice the portions removed by the ligature were in a mortified condition. He was not, however, disposed to regard the change that ensued as a simple hypertrophy,

dependent on vascular congestion, nor did he believe that the tongue was in every instance protruded from the mouth in consequence of inflammatory swelling, but rather, as Boyer considered, from an elongation or paralysis of those structures, by which the tongue was retracted after its protrusion, and retained in its position in the mouth. The tongue being thus permanently protruded in consequence of the inaction of its retractile agents, effusion of lymph and organisation followed. It would be noticed that this affection always occurred in children, and it was known that children were very apt to put out their tongues, and of course were, therefore, more liable to permanent protrusion of that organ from disease. But whatever might be the nature of the enlargement, it was clear that it was not malignant, for in none of the cases which had been operated on had any account been given of its return. He had seen the patient, who had been under his own care some years after the operation, and she was then quite well, and he believed she had been seen about a year ago in a good state of health, with a tongue altogether free from enlargement.

Dr. Webster observed, it was a curious circumstance in the cases which had been related, that they all occurred in female children. He did not know what deduction might be gathered from this incident, but he believed his statement would be found correct.

Dr. Copland witnessed an example of the disease when on a visit to the Shetland Isles thirty years ago. To the best of his recollection it was similar in all respects to the instances which had been mentioned, but he was unable to give any information respecting the progress of the case, having only caught sight of it during a transient visit to the island.

A paper was also read, entitled

OBSERVATIONS ON THE INDUCTION OF PREMATURE LABOUR BEFORE THE SEVENTH MONTH OF PREGNANCY.

By Dr. ROBERT LEE, F.R.S.

In the year 1812, in the third volume of the "Transactions" of the Society, Dr. Merriman had published a paper entitled "Cases of Premature Labour Artificially induced in Women with Distorted Pelvis, to which are subjoined some Observations on this Method of Practice." The author thought it significant that in thirty-two volumes of the "Transactions," embracing a period of forty years, there did not occur the history of a single case to illustrate this important rule of practice; while in these volumes there were reports of ten cases of Cæsarian operation. Of the safety, efficacy, and morality of inducing premature labour, in conformity with the rules inculcated by Dr. Merriman, the author thought most British and some foreign practitioners were convinced; but in respect to the induction of premature labour before the seventh month and in first pregnancies, to obviate the danger of craniotomy and the fatal effects of the Cæsarian section, in cases of great distortion of the pelvis, little had been said by writers on midwifery. To justify the practice, which the author regarded as equally safe, efficacious, and moral, before as after the seventh month of utero-gestation, and in a first as in any subsequent pregnancy, he submitted the history of a successful case, which was attended with peculiar complications and formidable difficulties. In October, 1849, with Mr. Booth, of Queen-street, Westminster, he saw Mrs. S——, who had been in labour forty-eight hours, and whose pelvis was distorted in the highest degree from mollities ossium. After perforating the head, which had not entered the brim of the pelvis, and, by tearing in pieces the bones with the crotchet, delivery was accomplished after two hours' violent exertion. The partially dilated state of the os uteri greatly increased the difficulty and danger of the operation. The patient recovered without any unfavourable symptom. In December, 1852, the author learned from Mr. Booth that the patient was again pregnant; and in the fifth month, some diagnostic symptoms of pregnancy being absent, any interference was postponed for another month. In January, 1853, the movements of the fœtus could be distinctly felt, and the necessity for immediately attempting to induce premature labour was obvious and urgent. The great distortion of the pelvis (the tuberosities of the ischia were almost in contact, and the sacrum projected forward so as nearly to touch the front of the pelvis) presented unusual difficulties, seen in reaching the os uteri for the purpose of introducing the stiletted catheter to puncture the membranes. After a time, the fore and middle fingers of the left hand were passed into the vagina, and the anterior lip of the os uteri was touched with the tip of the forefinger; the instrument was then guided into the cavity of the uterus, and the membranes punctured. The liquor amnii continued to flow till the morning of Friday, the 7th of January, when labour pains came on. At two p.m. the os uteri was so much dilated, that the points of two fingers could be introduced, and the nature of the presentation ascertained. It was not the head, but whether shoulder or nates could not be determined. At seven p.m. the right hand was hanging out of the external parts, and the shoulders and thorax had sunk deeper into the pelvis. On a careful examination, it was found that the tuberosities of the ischia had been pressed considerably apart, the short diameter of the outlet being thus increased; and there was little doubt but that the bones at the brim had also yielded somewhat to the pressure. The shoulder being brought down as much as possible, the viscera of the thorax were removed by the crotchet; and, after fixing its point in the spine as near as possible to the pelvis, after strong traction, the nates and lower extremities were drawn through, and the other superior extremity soon followed. But little difficulty was experienced in crushing or extracting the head. The placenta soon followed. Three weeks after the delivery, the author received a satisfactory communication from Mr. Booth, stating that the patient had progressed very favourably.

The President asked Dr. Lee what he would consider the smallest diameters of a pelvis which might permit forcible delivery to be accomplished by the natural passages; and he was anxious to know whether instances of such extreme distortion might not present themselves, that extraction of the fœtus by the Cæsarian operation would be preferable to attempting forcible delivery by the natural passages.

Dr. Lee said, the question he wished to bring before the Society was the propriety of inducing premature labour before the seventh month, to obviate the dangers of craniotomy after that period, and the risk of the Cæsarian section. The question of the President was not an easy one to answer, but he was strongly inclined to believe that delivery might always be accomplished before the seventh month. In the case he had laid before the Society the distortion was extreme, greater difficulties were never surmounted, and he did not believe that any accoucheur would be at all likely to meet with a more deformed pelvis. He had seen the pelvis of a woman who had been delivered by the Cæsarian section, and had perished in consequence during the past year; and he had no hesitation in declaring, that the pelvic deformity in that case was less than in the one he had succeeded in delivering by the natural passages.

Dr. John Clarke had witnessed an instance in which delivery was effected between the sixth and seventh month with considerable difficulty; and, had the pregnancy been allowed to proceed, the fœtus could only have been extracted by the Cæsarian section. Dr. Lee, perhaps, would recollect having seen this case at the Lying-in Hospital. His personal experience would not enable him to decide whether the Cæsarian operation might not, in some instances, be impossible to avoid; but a gentleman who had great experience in obstetrical practice informed him that he had met with no cases in which premature delivery might not be accomplished with care and attention before the seventh month, nor with any in which recourse to the Cæsarian operation might not be averted by this proceeding.

A Member said, it had been mentioned by Dr. Lee that the bones of the pelvis yielded during delivery in the case which had been related; but he should like to ask Dr. Lee whether such yielding might not be ascribed to the ligaments, inasmuch as M. Lenoir had recently laid some observations before the French Academy, to prove that the ligaments did yield considerably in cases of deformed pelvis.

Dr. Lee was at a loss to know what ligaments could have yielded so as to increase the dimensions of the pelvis in the case he had related.

Dr. Tyler Smith believed that it would be a very advantageous circumstance, if delivery could be brought on in cases like that detailed by Dr. Lee without rupturing the membranes. The retention of the liquor amnii prevented the violent contractions of the uterus from taking place, and so diminished the risk of its rupture, and he thought it would be far better to induce premature labour by the use of the douche than by rupturing the membranes.

Dr. Lee was acquainted with no certain mode of inducing premature labour except rupture of the membranes. The plan alluded to by Dr. Tyler Smith was one that possessed many advantages, and had been used by himself to bring on premature labour after the seventh month, but he thought it was not so applicable before that period. It was quite true that the uterus was less likely to rupture if the liquor amnii had been retained, but nevertheless it might rupture, and he thought it quite possible that the douche might fail to accomplish its object, or that labour so induced might be ineffectual and much prolonged.

Dr. Tyler Smith said, that the plan of bringing on premature labour by the douche was perfectly safe, and had been found very efficacious in cases of distorted pelvis in Germany. It was in his opinion a far less hazardous proceeding to throw up a jet of water into the uterus, than to puncture the membranes as Dr. Lee had

done, by a stiletted catheter, which, in consequence of the distance at which the uterus was placed from the vagina, in such instances, might penetrate the wall of the uterus or pass out into the cavity of the pelvis, and do considerable damage without any fault of the operator. By the employment of the douche no such risks were incurred, and he thought this constituted an additional reason for adopting a practice which experience had shown to be effective and devoid of danger.

The Society adjourned at the usual hour.

MEDICAL NEWS.

Royal College of Physicians.—At a Comitia Majora Extraordinaria, held on Thursday the 17th inst., Dr. Ramskill, St. Helen's-place, Bishopsgate, having undergone the necessary examinations, was admitted a Licentiate of the College.

Royal College of Surgeons.—The following members of the College, having undergone the necessary examinations, were admitted to the Fellowship, at the last meeting of the Council:—

Bainbridge, John Nathan, St. Martin's-lane; diploma of membership dated Dec. 1, 1820.
Bodington, William, Kenilworth; May 6, 1808.
Blackmore, Edward, Manchester; March 26, 1830.
Craigie, J. Livingston, Finsbury-square; Nov. 28, 1834.
Ceely, James Henry, Aylesbury; August 3, 1832.
Daniel, George, Manchester; Jan. 6, 1837.
Diamond, Wm. Batchelor, Henley-in-Arden; Feb. 5, 1808.
Dickin, Oswald, Middleton; Jan. 23, 1827.
Duncan, Robert, Tunbridge Wells; June 20, 1834.
Faircloth, Richard, Newmarket; May 8, 1832.
Gilpin, Bernard, Ulverstone; Dec. 7, 1813
Gore, Henry John, Croydon; April 2, 1819.
Hembrough, John, Waltham; Jan. 23, 1827.
Illingworth, H. S., Arlington-street; March 16, 1832.
Irving, William, Penrith; Oct. 1, 1830.
Marshall, George Henry, Kingston; Jan. 5, 1836.
Mitchell, Tobias, Redruth; Dec. 16, 1808.
Parrott, John, Clapham-common; May 19, 1809.
Pollock, Timothy, Hatton-garden, March 3, 1820.
Seed, Joseph, Rochdale; March 1, 1816.
Thompson, William, Boguor; Sept. 5, 1823.
Townley, James, Kennington-common; March 26, 1830.

At the same meeting, Mr. John Macdonald, of Coburg-place, Kennington, a member of the Edinburgh College, was admitted, *ad eundem*, a member of this College.

Licentiates in Midwifery.—In our last Journal, we omitted to include amongst the gentlemen who had passed the necessary examinations for this distinction the name of Mr. Francis Nottige Macnamara, of Uxbridge.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, 10th February, 1853:—

Cantis, Henry, London.
Davis, Edward, Newbury, Berks.
Desplan, Henry, Bath.
Hampton, Edward, London.
Manley, John, Pernambuco.
Woods, George, Maghull, Lancashire.

DEATH.

Wintle.—February 14, at Cheltenham, aged 50, Frederic Thomas Wintle, M.D., F.L.S., Resident Physician to the Warneford Asylum, Headington, Oxford. M.R.C.P., 1852; M.R.C.S. England, 1833; L.S.A., 1828.

APPOINTMENTS.

Small-pox and Vaccination Hospital.—Dr. Munk, Physician to the Royal Infirmary for Diseases of the Chest, has been just elected Physician to the Small-pox Hospital, in the room of the late Dr. Gregory.

Naval.—Assistant-Surgeon William Richardson (1848), additional in the Britannia, 120, flag-ship, on the Mediterranean Station, to the Victory, flag-ship, at Portsmouth.

London Hospital.—The House Committee will meet on the 22nd inst., to receive and examine applications from candidates for the office of Physician to the hospital, in the place of the late Dr. Pereira.

Westminster Hospital.—It is with regret that we have to announce the resignation of Mr. Benjamin Phillips as Surgeon to this Institution. His retirement, which has been rendered necessary by the bad state of his health, will prove a great loss to the Westminster Hospital. Mr. Charles Guthrie has also resigned the office of Assistant-Surgeon, in order to become a candidate for the appointment of Surgeon. There will, consequently, be a vacancy for an Assistant-Surgeon, which appears likely to give rise to a severe contest. Mr. Hillman and Mr. Holthouse, lecturers in the Westminster Hospital School of Medicine, are the candidates at present in the field.

The Earl of Devon has resigned the Presidency of the London Fever Hospital, and Lord Monteagle has been appointed in his place.

North Pancras Provident Dispensary for the Industrious Classes.—The third annual meeting of this Institution was held on the 28th of January last, at the Dispensary in Hawley-crescent, Camden-town. From the report, it appeared that 251 members' cards had been issued during the past year, and the total number of members now on the books amounts to 960. The donations and subscriptions have amounted, during the last year to 94*l.* 3s. 3d.; the members' payments to 258*l.* 11s. 5d.: total, 352*l.* 14s. 8d. The expenditure—general working expenses, 119*l.* 15s. 2d.; medical department, 231*l.* 4s. 1d.: total, 350*l.* 19s. 3d. The number of cases under medical treatment, during the past year, has been 1891, in addition to 69 midwifery cases; the number of deaths, 18. A special general meeting was directed to be called for the purpose of electing an additional Medical officer, and also an Honorary Consulting Physician, in the room of Dr. Gregory, deceased.

Military Honours.—In a despatch to the British Government, dated December 29th, 1852, from Major-General Godwin, C.B., commanding troops in the Tenasserim Provinces, when reporting on the sharp engagement for the relief of Pegu, that gallant officer states, that to Surgeons McCosh and Balfour, and the Medical Department, the service is much indebted.

Professor Paget.—We are happy to learn that this gentleman is so far improved in health as to be able to see his private patients, although he is not yet sufficiently recovered to resume his hospital duties.

The Medical Society of London.—The annual anniversary oration of this Society will be delivered by Dr. Snow on the 8th March.

The Late Dr. Pereira.—We are glad to notice that the friends and former pupils of this gentleman, whose loss we have so recently had to deplore, are procuring funds for the purpose of raising a testimonial to his memory.

St. Luke's Hospital for Lunatics.—At a meeting of the Governors of this Hospital, held on the 16th inst., Mr. Henry Stevens was elected, by a large majority, Rresident Medical Officer, in the room of Dr. Arlidge, resigned.

Keswick.—The Public Health Act is just about to be applied to the town of Keswick. Tourists may now hope for healthy lodgings and hotels, as well as healthy mountain breezes, in this lovely lake land. Truly not before it was full time.

The Cholera.—Russia.—591 cholera patients were under treatment at St. Petersburg on Jan. 20. On the same day there were 55 new cases, 28 cures, and 21 deaths.

The Sugden Prize.—The prize of twenty guineas, established by Lord St. Leonards when Lord Chancellor of Ireland, has been awarded by the Council of the Royal College of Surgeons in Ireland to Joseph Williams, Esq., M.D., of Harcourt-street, Dublin, for his essay on Hypochondriacal Insanity. Dr. Williams is a Dublin surgeon, and a Licentiate of the King and Queen's College of Physicians in Ireland, and Lecturer on Botany in the Original School of Medicine.

Gems from Irish Poor-law Advertisements.—The following appeared in the *Dublin General Advertiser* of Feb. 12. It requires no comment from us:—"Downpatrick Union.—The Guardians of the Poor of the Downpatrick Union will, on Saturday, the 19th day of February, at noon, proceed to elect a Medical Officer, at a salary of 55*l.* yearly, and a Master of the Workhouse at 45*l.* per annum, with apartments, coals, candles, etc., and first-class rations." It appears by the same medium of advertisement, that the Ballinrobe Union wants a schoolmaster to the workhouse, at a salary of 30*l.* per annum, with rations. The Tincurry Auxiliary Workhouse (Clogheen Union) offers better terms still to a schoolmaster, viz., salary of 25*l.* per annum, with apartments and rations. The Listowel Union wants a Medical Officer at 52*l.* per annum; and the Longford Union offers 15*l.* a year, with apartments and rations, to an Hospital Nurse. We have only one

advice to give to the medical candidates for the Downpatrick Union, viz., to burn their diplomas, and look for the schoolmastership, 45*l.* per annum, apartments, and rations! they will never do half so well as Dispensary Doctors.

THE ESPIEGLE, 12, COMMANDER GEORGE HANCOCK.—An example has been set by Commander Hancock, which we hope to see followed by other commanders fitting out vessels of her class. Under the present Admiralty regulations for the accommodation of officers, no provision has been made for the assistant-surgeon appointed. Captain Hancock has given up one of his own cabins for the entire use of the assistant-surgeon appointed, otherwise he must have been without a cabin for his personal comforts.—*Times*, Feb. 16, 1853.

THE ADMIRALTY AND THE ASSISTANT-SURGEONS. — The *United Service Gazette* has the following:—"A case has come under our notice, which seems to indicate that a departure from the Admiralty Memorandum, which declares that assistant-surgeons shall be provided with cabins, has been determined upon. As we do not intend to deal in innendoes, we shall at once lay the case before our readers. If our statements can be disproved, so much the better, not only for the Graham Board but for the Service, the efficiency of which can never, by any possibility, be ensured, so long as high medical talent is discountenanced among the medical officers. The facts to which we refer are briefly these:—Her Majesty's steam-frigate Desperate, Captain William Wylly Chambers, was commissioned in December last at Devonport. In due time an assistant-surgeon, who had passed the examination qualifying him for the rank of surgeon, was appointed to that ship, and who, being entitled, under the regulations in force, to ward-room accommodation, naturally expected a cabin. Finding no such desirable comfort provided, he made an application, through the ordinary official channels, to be furnished with one; and on his letter reaching the Commander in-Chief, the Dockyard authorities were ordered to report upon it, and to state whether the requisite space could be found without detriment to the ship's company, etc. The result was a report (in which Captain Chambers fully concurred), to the effect that a cabin might be constructed without the slightest inconvenience to the public service. It being, however, necessary to put the question before the Admiralty before carrying the plan into force, the momentous affair was duly brought under their Lordships' consideration. The result was that the request of the young doctor received a decided negative. It is possible the First Lord (who will, as a matter of course, be held responsible by the Profession for the acts of his colleagues as well as for his own), may be in ignorance of the rights of the case, and we therefore beg to call his attention particularly to the 'Admiralty Circular' in question, dated 'July 17th, 1850,' in which he will meet with the following passage, 'First class assistant-surgeons are to be entitled to cabins where space and accommodation will permit!' If he considers it wrong, let another memorandum be promulgated declaring the accommodation from henceforth abolished, and assistant-surgeons and others will know what to expect."

DEATHS *in the Metropolis for the week ending Saturday, February* 12, 1853.

CAUSES OF DEATH.	FEB. 12. 0	15	60	All Ages.	Sum of Ten Weeks.
ALL CAUSES	479	452	293	1235	10540
SPECIFIED CAUSES	479	452	292	1223	10472
1. Zymotic (or Epidemic, Endemic, and Contagious) Diseases ...	162	35	15	212	2029
SPURADIC DISEASES:					
2. Dropsy, Cancer, and other Diseases of uncertain or variable seat ...	2	33	21	56	493
3. Tubercular Diseases	58	129	7	194	1811
4. Diseases of the Brain, Spinal Marrow, Nerves, and Senses ...	65	36	46	147	1242
5. Diseases of the Heart and Blood-vessels	3	31	12	46	407
6. Diseases of the Lungs and of the other Organs of Respiration ...	99	113	100	312	2139
7. Diseases of the Stomach, Liver, and other Organs of Digestion...	20	23	13	56	587
8. Diseases of the Kidneys, etc. ...	2	10	6	18	98
9. Childbirth, Diseases of the Uterus	...	14	2	16	114
10. Rheumatism, Diseases of the Bones, Joints, etc.	...	8	2	10	86
11. Diseases of the Skin, Cellular Tissue, etc.	...	1	...	1	12
12. Malformations	4	...	...	4	29
13. Premature Birth and Debility ...	25	2	...	27	241
14. Atrophy	17	...	...	17	183
15. Age	...	...	59	59	605
16. Sudden	4	2	1	7	121
17. Violence, Privation, Cold, and Intemperance	18	15	8	41	275
CAUSES NOT SPECIFIED	...	...	1	12	68

TO CORRESPONDENTS.

"CHLOROFORM IN PERNIO," OR CHILBLAIN.

[To the Editor of the Medical Times and Gazette.]

SIR,—Those who are troubled with chilblains will experience almost instant relief by rubbing well into the part affected a half drachm or so of chloroform in the early stage; if it be well applied, and friction kept up properly, it never fails to cure.

When the skin is vesicated, it should be applied by means of a camel hair brush, and the part lightly touched, with care not to rupture the skin. When they are broken, and ulcers or mortification appear, an ointment composed of ung. resinæ an ounce, with a drachm of chloroform rubbed up, forms an excellent remedy. I am, &c.

EDWARD WILLIAM PRITCHARD, M.D., M.R.C.S.E., &c.
late Royal Navy.

Hunmanby, Scarborough.

M. D. (Glasgow).—The examinations at the London College of Physicians take place quarterly. No candidate is admitted who has not completed the twenty-sixth year of his age. According to the regulations, no Fellow or Licentiate may consult in London, or within seven miles thereof, with a physician who does not belong to the College, under a penalty of Five Pounds.

A Member of the Medical Society of London.—Your request shall be attended to in due time.

H. S. Edwards, Esq.—Valentin's knife can be procured of most surgical instrument makers. It is useful for making thin sections of soft glandular organs, as the kidney, liver, etc.

Embryo.—The Examination at the University of St. Andrews extends over two days. On the first, candidates are required to give a written translation of a passage from a Latin medical author (Sydenham, Gregory, or Celsus), and are examined in chemistry, materia medica, anatomy, and physiology. On the second day they are examined in pathology and the practice of medicine, in the principles of surgery, and in midwifery. To your second question—Yes. To your third—we do not know; the subject is under dispute.

An Obstetrician.—The extraordinary case was a puff. It ought not to have appeared in the daily papers.

Mr. F. D. Fletcher, Liverpool.—To answer this gentlemen's objections would be to re-write our Leading Articles on the subject of Dr. Marshall Hall. Some of the arguments brought forward by Mr. Fletcher fall to the ground because the premises on which they are founded are incorrect; the others are based on mere matters of opinion. We quite agree, however, with the remark, that "patients are not to be put up to sale like Uncle Toms and Aunt Chloes, and knocked down at so much a head to the highest bidder."

We shall feel indebted to a *Member of the College of Surgeons* for a more detailed account of the quacks he alludes to than that he has already forwarded. It is certainly a slur upon the laws of this country that such impudent impostors are allowed to rob the simple-minded portion of the public with impunity.

Mr. Borham's letter is left for him at the Office. On repersual of it, Mr. Borham will doubtless perceive that we have exercised a sound discretion in not publishing it.

A Ten Years' Subscriber, Ludlow, inquiring whether "a chemist and druggist, not in practice prior to 1815, though an assistant before that time, can furnish his apprentices of five years with the necessary indentures of apprenticeship required by the Apothecaries' Company?" is answered, Certainly not.

Scrutator, Nailsworth.—Our Correspondent is too hard upon Dr. Marshall Hall, whose scientific labours are universally acknowledged. Our remarks upon his late conduct have been penned more in sorrow than in anger.

Dr. Todd's suggestions shall be attended to.

Mr. Hingeston.—Your request shall be complied with, if the paper does not exceed moderate limits.

An Old Friend to Medical Reform is thanked very sincerely for the kind expression of his approbation.

Inquirer, Bridgnorth.—Savory's "Domestic Medicine" is a book calculated to be useful for an unprofessional man under the circumstances mentioned. The work which gives most information on the diseases of India is that of Johnson and Martin on the "Diseases of Tropical Climates."

The letter of *Mr Thomas Wiglesworth* has reached us too late for insertion this week. Before again going to press it shall receive our consideration.

Hibernicus.—Our Correspondent will see by our review of Mr. Ellis's pamphlet, that we are not forgetting the cause of our Irish medical brethren and the Dispensary Act. We feel obliged for the facts communicated, and will take an early opportunity of calling attention to these and similar grievances, which loudly call for redress. We shall also be glad to receive any further information.

COMMUNICATIONS have been received from—

Dr. TODD, King's College; J. A. HINGESTON, Esq, Brighton; Dr. WALLER, Finsbury square; Dr. E. W. PRITCHARD, Scarborough; W. R. WILDE, Esq., Dublin; A. L. W.; T.; MEDICIST; B. WELTON, Esq., Bridewell. THOMAS WIGLESWORTH, Esq., Coleford; INQUIRER, Bridgnorth.

ORIGINAL LECTURES.

CLINICAL LECTURE

ON

LARYNGEAL AND THROAT AFFECTIONS,(a)

DELIVERED AT

King's College Hospital.

By ROBERT B. TODD, M.D. F.R.S.
Physician to the Hospital.

Gentlemen,—You have lately had the opportunity of observing two cases, one of disease of the larynx, the other of an affection of the mucous membrane of the fauces, which will enable me to bring these subjects under your notice to-day.

Let me first remark, with respect to laryngeal disease in general, whether it be acute or chronic, that it is very much influenced by diathesis, both in its origin and in its duration. This is very manifest in the case of the strumous as well as of the gouty diathesis. Persons of either of these forms of constitution, when once they have been attacked with laryngeal inflammation, find it very difficult, sometimes, indeed, impossible, to shake off the disease.

One of the most formidable of the acute affections of the larynx, happily less frequently met with now than formerly, is the inflammatory or membranous croup,—a disease which is characterised by the rapid formation of a layer of coagulable lymph, forming a false membrane, that moulds itself to the interior of the larynx, and will extend down the trachea, whence it is sometimes called "cynanche trachealis," even into the bronchial tubes. The pathology of this disease is not as yet by any means settled; but it may, I think, be said, that the true membranous croup is, of all laryngeal diseases, the least associated with peculiarity of diathesis. Why it is in so marked a manner a disease of childhood has received no explanation. We have in adult life a disease somewhat analogous to it, although affecting the pharyngeal rather than the laryngeal membrane. I mean that disease which is accompanied by a membranous exudation on the mucous membrane of the velum and back of the pharynx, which the French have designated *diphtherite*—a malady in close alliance with erysipelas. Can it be that the cause and the pathology of diphtherite and of croup are alike? This subject is one which demands careful investigation, and the more so as the results of our ordinary means of treating croup are far from being satisfactory.

One of the most common forms of laryngeal disease is that which is connected with the strumous or tubercular diathesis —this is also known as laryngeal phthisis—it is usually associated with tubercular deposits in the lungs. That form of cachexia which is induced by the syphilitic poison will also often give rise to laryngeal disease, generally chronic, but sometimes exhibiting very acute and urgent symptoms. These two forms of chronic laryngeal disease may be confounded the one with the other.

Erysipelas may affect the larynx, and give rise to the most serious consequences. It is well known that the erysipelatous poison is very prone to attack the mucous membrane of the fauces. From that the erysipelas may spread either forwards through the nostrils to the face and head, or backwards and downwards to the larynx. Erysipelas of the larynx is apt to induce a rapidly œdematous condition of the submucous areolar tissue, giving rise to that fearful malady, acute œdema of the glottis, by which that chink, so important to life, is very quickly encroached upon, and the difficulties of a severe and rapid dyspnœa, superadded to the depressing influence of the erysipelatous poison, speedily destroy life.

To these affections I may add an inflammatory condition of a chronic form, not destructive to life, nor to the tissues of the larynx. It is a chronic inflammation of the mucous membrane, very often described as a relaxed condition, with considerable enlargement of the mucous follicles. This affection is often connected with the lithic or gouty diathesis, and it likewise frequently occurs in debilitated states of the system from various causes. It is sometimes associated with a peculiar state of the nervous system, a form of hypochondriasis. That condition of throat which is so apt to occur in clergymen is of this kind.

I shall illustrate to-day the tubercular affection of the larynx, and that relaxed condition of its mucous membrane to which I have last referred.

The first case which I shall bring under your notice affords a good example of disease of the larynx occurring in the tubercular diathesis.

The subject of this affection was a girl of the name of Reynolds, in Lonsdale Ward, (Vol. XXXIV., p. 160); she was 18 years of age, and of delicate health. The history of her case afforded abundant evidence of the existence of phthisis in her family, as she had lost her mother and one sister by this disease.

The affection from which she was suffering has been badly named "laryngeal phthisis," because the name would lead you to suppose that the disease was limited to the larynx; whereas, I believe, it never occurs without the presence of tubercles in the lungs, either in the crude or softened state. In some cases, the laryngeal symptoms are the first to manifest themselves. A patient having indications of a phthisical tendency, is found on inquiry, before any symptoms of tubercle had manifested themselves, to have been the subject of frequent slight affections of the larynx, accompanied by hoarseness and cough, and attributed to exposure to changes of temperature.

In other cases, the symptoms of phthisis develope themselves before the laryngeal symptoms commence. In the present instance, however, the affection of the larynx appeared first, and, upon superficial examination at an early period, the disease might have been viewed as one of laryngitis simply.

The patient told us that, in November last, soon after exposure to the wet and cold, she became troubled with a feeling of soreness about the throat, which was followed by hoarseness and loss of voice, and, at the same time, she became affected with a dry, suffocating cough, accompanied by severe pain in the region of the larynx.

Pain referred to the larynx is one of the most constant symptoms of the disease, and will rarely be found entirely absent. Usually the pain causes great distress to the patient. The affection of voice varies according to the seat of the disease. If the epiglottis and adjacent folds of membrane only are involved, the voice will probably not suffer much; but, if the inflammation extend downwards, the affection of the voice will vary in severity according to the extent to which the ventricles of the larynx or the vocal cords are involved.

A symptom soon appeared in our patient which must always be regarded in a serious light; she became subject to difficulty of deglutition. The report says, that she was quite unable to swallow any solid food, and even the passage of liquids produced considerable pain, accompanied by a choking sensation, and that the food was frequently forcibly ejected from the mouth in the effort at deglutition, and that much of it passed through the posterior nostrils.

Now, you may naturally ask, what has the larynx to do with deglutition; it is true that, in swallowing, provision is made to protect the glottis, but how can disease of the larynx create dysphagia? A very little consideration of the close connexion existing between the pharynx and the larynx, and also of the intimate relations of the nerves which supply both, will furnish the solution of this problem.

You know that the rima glottidis lies immediately behind and beneath the root of the tongue, and that the epiglottis stands up between both, and seems to protect and to overhang the glottis. In deglutition, the root of the tongue and the rima glottidis are forcibly compressed together, and the epiglottis, lying between them, also suffers compression, and is made thereby to cover the whole chink of the glottis. This is the mechanism by which, in deglutition, food is prevented passing into the larynx; this close apposition of the root of the tongue to the rima glottidis serves to close the latter aperture completely, provided the epiglottis retain its normal flexible and elastic state. But if the epiglottis be swollen or thickened, and rigid, or even simply highly sensitive and irritable, as from ulcers on its surface, then, by its intervention, that perfect apposition of the root of the tongue to the glottis is prevented, on which perfect closure of the glottis, and, consequently, perfect deglutition, depend.

The epiglottis may have been removed, as in Majendie's experiments and observations; and, provided no material

(a) Reported by Dr. Beale, Lecture XXXVI.

injury have been done to the neighbouring textures, the apposition to which I allude may be effected, and the glottis protected. But it rarely happens, after chronic destructive disease of the epiglottis, that the neighbouring texures have so far escaped as to allow full play to the linguai and pharyngeal muscles, so that they may perform freely, and without impediment, the actions necessary for deglutition.

Disease of the larynx, then, gives rise to difficulty of deglutition, when the epiglottis, or the arytæno-epiglottidian folds of mucous membrane, but especially the former, are involved in the disease. And the degree of dysphagia is greatest when the epiglottis is so swollen or so irritable that the actions necessary for deglutition are impeded through a mechanical obstacle, or through extreme sensibility of the surface of the mucous membrane.

The nature of the dysphagia, in cases of this kind, deserves your attention. It is not only often extremely painful, and the actual effort of swallowing difficult, but the whole act of deglutition is so deranged, that the usual safeguards to the larynx below, and to the nares above, are greatly interfered with. Hence, in many instanees, and especially when the epiglottis is rigid and swollen, the attempt to swallow is followed by great irritation of the glottis and by a powerful expiratory effort, by which the food or fluid is forcibly ejected upwards, partly through the mouth and partly, and most painfully, through the posterior nares. This kind of inversion of the act of deglutition, when it frequently occurs, and is associated with other signs of laryngeal disease, is always an indication of a diseased state of the epiglottis. This feature, then, of difficult deglutition necessarily directed our attention very much to the state of the larynx in our patient.

But to proceed with the history of the case. Since the commencement of her attack, she had lost flesh considerably, and had been troubled with perspirations at night. She has frequently suffered from pain between her shoulders, and her breath has been gradually becoming more and more short. She never spat blood. As winter came on the pain returned; she lost her voice, so that she was only able to speak in a whisper, and her breathing became stridulous,—a symptom distinctly pointing to the larynx either as primarily or secondarily diseased. This symptom never disappeared, and, while she was in the hospital, the noise of her breathing was so loud and peculiar, that, upon coming into the ward, your attention could not fail to be arrested by it. At the same time she suffered from a troublesome hacking cough, accompanied with the expeetoration of a greenish muco-purulent matter; her deglutition became worse, and she was unable to swallow even very small quantities of liquids or solids without considerable difficulty and pain.

The first question which proposed itself for our consideration, was, whether the laryngeal symptoms arose from the occurrence of certain morbid changes in the larynx itself, —in fact, were dependent upon disease of the larynx,—or whether they were caused by the pressure of some intra-thoracic tumour on the left recurrent nerve. That pressure on the recurrent is quite sufficient to give rise to such symptoms, has been abundantly proved by cases of thoracic aneurism. The aneurisms which usually produce such pressure are small, globular dilatations of the vessel, occurring about the bifurcation of the trachea.

Some years ago I recollect meeting with a case of this kind which exhibited all the more prominent symptoms of chronic laryngitis. The patient was brought into the ward just as I was leaving it after my visit, and I had no opportunity of making a sufficiently minute examination of her at that time. There were great emaciation, stridulous breathing, dyspnœa, with chronic cough, hoarseness, and pain referred to the larynx. Unfortunately, the patient died very soon after her admission, and probably in consequence of exhaustion brought on by moving her. At the *post-mortem* examination, we found an aneurism situated just at the bifurcation of the trachea, and pressing upon the left recurrent nerve so forcibly as to cause complete obliteration of the nerve tubercles; hence there was complete paralysis of the muscles of the larynx supplied by the nerve of this side, and they were found small, ill-nourished, and shrivelled.

Some months ago we had a remarkable case in Rose Ward, as to the precise nature of which we had some doubt. The man suffered from symptoms clearly referrible to the trachea and larynx. He was troubled with violent irritative cough, and the expectoration was tinged with blood; but the voice was but slightly affected, and the breathing was not stridulous. The diagnosis lay between ulcerative disease of the trachea and the existence of a small aneurism pressing on the recurrent nerve. The patient died suddenly by hæmorrhage; and a little above the bifurcation of the trachea we found a small perforating ulcer, which had incidently been caused by the pressure of an aneurism of the arch of the aorta against the trachea.

How, then, are we to make the diagnosis between actual laryngeal disease and that deranged state of the larynx which simulates inherent disease of the organ, but which really depends upon the existence of an irritating or paralysing cause at a distance from the larynx?

To determine affirmatively the existence of inherent disease of the larynx, you must not trust solely to the symptoms. Those symptoms you will find to be impaired voice, breathing difficult and stridulous, and the dyspnœa, although constant within certain limits, yet becoming much exacerbated from time to time, pain referred to the larynx, and more or less difficulty of swallowing. Now, all these symptoms may be caused by the pressure of an aneurism or other intra-thoracic tumour on the recurrent nerve.

You must add, therefore, to the examination of symptoms inspection with the finger, which alone will often enable you to decide. With the forefinger of the right hand you will generally be able to reach the epiglottis with great ease, and you may often feel its laryngeal surface; the finger may be passed along the arytæno-epiglottidian folds, and any thickening or roughened state of the mucous membrane covering these parts can be readily felt. When the epiglottis is much thickened, you will find it more or less rigid, with edges rounded, or it may be so swollen as to appear like a small globular tumour between the tongue and the larynx. If the mucous membrane covering the epiglottis be diseased, the surface will feel uneven or rough, or it may be hollowed out into small depressions, with irregular and perhaps callous edges. Generally, when the mucous membrane of the larynx is affected with chronic inflammation, that of the fauces is often found to sympathize with it; hence, upon looking into the month, you will often notice an injected state of the mucous membrane covering the back of the mouth and throat. When ulcers exist in the larynx there will usually be found a certain amount of purulent expectoration, which may in part, however, come from the lungs, if, as usually happens in cases of laryngeal phthisis, these organs are also affected with tubercular deposit. On the other hand, if the lungs be found perfectly healthy, it may be inferred that all the secretion is derived from the ulcers in the larynx, which is the case in syphilitic ulceration uncomplicated with other disease. In tubercular disease, expectoration is only met with in cases where the tubercles are being softened and broken down. In the crude state, before the tubercular deposit has undergone disintegration, there is no expectoration whatever from the lungs.

If the laryngeal symptoms are caused by an intra thoracic tumour, there can be no difficulty in the diagnosis when there is a bulging or prominence to be found in any part of the chest; but if the tumour be small, and situated near the bifurcation of the trachea, considerable difficulty will often be experienced before any conclusion can be arrived at, and in such cases the diagnosis will rest in a great degree upon negative evidence. The absence of pain referred to the larynx, and the absence of purulent secretion, will to a certain extent direct the attention to the interior of the thorax for an explanation. The degree and kind of dysphagia will sometimes help you. Generally speaking, the dysphagia is not nearly so great nor so prominent a symptom where there is intra-thoracic tumour, as in cases of laryngeal disease; and it differs also in kind. In the latter, the dysphagia is evidently obstructive, so to speak, and the food is apt to go the wrong way; it sputters back into the mouth and into the posterior nares; but in tumour cases there is a feebleness and difficulty in using the pharyngeal muscles while the passage is quite free and unobstructed.

The respiratory movements in aneurismal cases are more hurried and otherwise impaired than when the larynx only is affected, although air passes freely into the lungs, or the greater part of them. In laryngeal cases the respiratory affection depends upon the amount of obstruction which exists to the passage of air into the lungs, from the diminution of the size of the glottis; and, in these cases, the dyspnœa arises from the want of air. In these laryngeal cases, auscultation indicates feebleness of breathing and faintness of respiratory murmur, which are uniform if there be no localised tubercular deposit. In intra-thoracic tumour

you may have general rhonchus, accompanying a paroxysm of dyspnœa; or, if the tumour press on one bronchus more than another, the rhonchus will be greatest on that side, or the sounds of breathing most feeble; it will be plain that less air gets into that lung than into its fellow. In the present case we had no difficulty in coming to a conclusion, the tubercular diathesis being well marked both in the patient's history, and also by the presence of physical signs; moreover, the patient's age was against the presence of aneurism, and this is a point which will often prove of valuable assistance to you in pronouncing an opinion, for aneurism very seldom occurs before the age of thirty.

In our patient, it was a question at first whether the disease of the larynx was syphilitic or tubercular. There was no history of syphilis to be obtained from the girl herself, but this, as you may easily conceive, could not be considered as conclusive against the syphilitic origin of the malady. There were, however, no other symptoms or marks of syphilis. However, there could be no doubt about the existence of tubercle. Phthisis was traced in her family history, and the upper part of the left side of the chest yielded a dull sound to percussion, both in front and behind. The breathing in this situation, although very feeble, was distinctly tubular, and there was, so far as the sign could be depended on in a case where voice was at a minimum, increased resonance of voice. On the right side, in the situation of the apex of the lung, there were rhonchus and some crepitation.

From all these symptoms and signs we set the case down as one of tubercular disease of the lungs, in which there was a chronic thickening of the mucous membrane of the larynx and epiglottis, and probably ulceration in or near the ventricles of the larynx, impeding the movements of the chordæ vocales. Although in laryngeal cases the precise seat of the disease may generally be most accurately assigned, we cannot always predicate the particular nature of the affection, which may sometimes be merely thickening, and sometimes ulceration of the mucous membrane. I know of no definite sign which will enable us to diagnose with certainty the presence of ulceration, but it exists in a large number of cases of laryngeal disease connected with pulmonary phthisis, and, if there be blood and pus in the sputa, it will probably be always found. In tubercular ulceration, the ulcers appear to be formed by the irritation and inflammation consequent upon the deposit of tubercular matter in the follicles of the mucous membrane. At the same time, Louis holds that laryngeal and tracheal ulcerations may be caused simply by the irritation produced by the contact of the tubercular matter expectorated from the lungs, and I have more than once observed a fact which certainly seems to bear out this explanation. I have found crude tubercles in one lung, and softened tubercles in the opposite lung; the bronchus connected with the lung in which the tubercles were softened exhibited an ulcerated state of the mucous membrane, while the bronchus of the opposite side was entirely free from them, which, no doubt, might be attributed to the passage of sputa along the one, and not along the other.

In our patient we inferred the existence of crude tubercles in the left lung, but we thought that in the apex of the right lung softening of tubercles had taken place, and that possibly a small cavity might have been formed. I thought that in this case the larynx was very likely affected with aphthous ulcerations, in their nature very similar to those aphthous ulcers which are so common on the tongue and fauces. The mucous membrane of the epiglottis felt as if it were considerably thickened, and no doubt the same condition prevailed in that covering the lips of the glottis, so that the chink became in this way much narrowed, and a considerable impediment was offered to the free entrance of air into the lungs. On the epiglottis I thought I could detect a number of small ulcerations, more particularly on its laryngeal surface. Such ulcerations would readily increase the difficulty of deglutition and the pain which the girl suffered when anything passed over the epiglottis. The mucous membrane was so irritable, that when the patient attempted to swallow liquids, a great quantity was often ejected through the posterior nares.

The symptoms did not vary much in the further course of the case. Treatment, as you would expect, was of very little use, and all that we attempted to do was to uphold the strength with nourishing food, and to relieve the distressing pain and irritability of the throat, which prevented her from sleeping, by giving small doses of opium at night.

Occasionally, to relieve the extreme irritability of the larynx, a sponge, tied on a probang, and soaked in a strong solution of nitrate of silver, was passed down to the larynx, so as to apply the solution well to the epiglottis, and to allow some of it to trickle down into the glottis. This application was always followed by considerable relief, as the patient always expressed herself as much better after each application, and her pain was relieved, although only temporarily.

The difficulty of swallowing and the dyspnœa increased in severity, and the vomiting continued unabated, so that she was unable to take much nourishment. The exhaustion increased, and, on the 25th, she was attacked with convulsions, from which she never rallied.

In the upper lobe of the right lung, a cavity about the size of a filbert was found, and was filled with pus. The remainder of the upper lobe of the same lung was infiltrated with tubercular matter. The upper lobe of the left lung contained crude tubercles, so that tubercular disease was not much advanced. We found numerous aphthous ulcerations on the mucous membrane of the ventricles and chordæ vocales, and also upon the laryngeal surface of the epiglottis, and these ulcers you may now see in the preparation. The mucous membrane covering the epiglottis and upper part of the larynx was much thickened, and the glottis very much contracted in size.

In reference to the frequency with which ulceration is met with in different parts of the air passages, Louis states, that, out of 71 cases, there were found 31 in which ulcers were found in the trachea, 22 in which the larynx was similarly affected, and in 18 ulcers were found upon the epiglottis.

I shall now notice another case, which is more deserving of your attention than the last, inasmuch as it is an example of a very common affection of the fauces and larynx, and one which is curable, or at least very manageable. The patient is a man named Osborne, in Sutherland Ward. His symptoms are a harsh, irritative cough, with slight mucous expectoration in quantity not at all proportionate to the violence of the cough, and also a considerable degree of hoarseness of voice. Upon looking into his mouth you find the mucous membrane of the faucial region exhibiting a dusky red blush, and you will observe a number of red points, as of raised papillæ, which are the mucous glands of the velum and back of the pharynx in an enlarged and swollen state. The appearance of the mucous membrane generally was one of great laxity, and the uvula was more or less elongated. In some cases the uvula is so much increased in length that it reaches to the glottis, and excites irritative cough. The inflammation upon which this state of mucous membrane depends never leads to the formation of pus or lymph. It may, however, run into a slightly œdematous state, but this is rare; and it is not always limited to the pharynx only, but often extends to the larynx and trachea, and sometimes into one or more bronchial tubes. This kind of inflammation is very common in men of gouty diathesis, and in women of a relaxed habit who do not take proper care of their health. Such persons you will often find complaining of being very subject to attacks of hoarseness, and liable to catch cold upon even the slightest exposure, and even without any apparent cause. The hoarseness will remain after the other symptoms of the cold have gone for a considerable period, in spite of various forms of treatment adopted for the cure, and it is accompanied with a troublesome cough, which harasses the patient very much. Persons labouring under such symptoms as these are often treated for bronchitis, and take large quantities of expectorant and other medicines for the relief of the cough. The seat of the irritation upon which the cough depends is thought to be in the bronchial tubes, and its real position (the fauces) is overlooked. On carefully examining a patient labouring under this affection, you will find the lungs quite sound and the bronchial tubes free from irritation. Such being the case, you next proceed to examine the fauces, and you find the swollen, red, relaxed condition of membrane which I have described.

The character and concomitants of the cough will help you to distinguish this affection. It is a highly irritating cough; the patient coughs with all his might to dislodge something which irritates the fauces or the larynx and upper part of the trachea. The product of the cough is very trifling, a little saliva and mucus, or throat and nasal mucus, which in London is often mixed with sooty matter. The

expectoration is in general infinitely small as compared with the vehemence of the cough. Exposure to cold air always excites and greatly aggravates the cough. The patient often complains that his cough is particularly troublesome on his first going to bed; this may be either from change of temperature from warm to cold, or it may be caused by the assumption of the horizontal position, when the uvula dropping upon the glottis may excite cough.

Cases of this kind are most rife during the cold winter months, and in the early spring, when the cold north or east winds prevail so much.

With regard to our patient Osborne, he was a hard-working, industrious man, with somewhat of the lithic acid diathesis. Three years ago he was admitted into the hospital with several small, hard tumours in the tongue, each about the size of a marble, which excited our fears as regards their malignant nature. We were not able to determine any very satisfactory history of syphilis, but they disappeared very quickly under iodide of potassium, and he got perfectly well. In the beginning of this winter, however, he was attacked by cough, which he attributed to exposure to cold. He had been working hard all day in a close room, and in the evening was exposed to the cold air on his return home. This soon brought on irritative cough, which was very obstinate, and did not yield to the usual remedies. On carefully examining the chest, we found no indications of bronchial irritation, but the fauces presented the injected, swollen, relaxed condition of mucous membrane, with enlarged mucous glands, which I have already described.

I treated him with the local application of the solution of nitrate of silver (3ss. to the 3j.) by means of a probang, which was thrust behind the epiglottis, down to the glottis, on the plan of Dr. Horace Green, of New York. The patient can always tell whether the sponge enters the larynx or not, from the great irritation it excites when it passes into the glottis; and in the withdrawal of it the operator feels a certain resistance, caused by the sponge being grasped by the muscles of the larynx, which resistance is not felt when it simply passes into the œsophagus. To pass the sponge into the larynx requires a good deal of steadiness and expertness on the part of the operator. While I fully admit the feasibility of the operation, I nevertheless suspect that the sponge may often pass simply into the œsophagus when it is thought to enter the larynx.

The application was continued every morning for three weeks, either to the glottis or to the neighbouring mucous membrane; and partly, no doubt, from this cause, and partly from his avoiding exposure to the cold air, he left the hospital very much relieved, at the expiration of that period.

This case affords a good example of that particular form of affection of the mucous membrane of the throat and larynx which is not benefited by the administration of any drug whatever, but which almost always is relieved by the local application of nitrate of silver, sulphate of copper, or even of simply astringent substances.

This plan of treating affections of this kind has long been familiar to practical men in this country, and was long ago practised very extensively by the late Mr. Vance, of this city. Dr. Green, of New York, had the boldness to pass the sponge into the larynx, and to show that such an operation was a much less formidable one than was previously supposed. It is, however, an operation not wholly free from danger, and which is not attended with proportionately good results. I do not hesitate to state this from considerable experience of it. In the vast majority of cases, quite as good effects may be obtained from applying the solution to the neighbouring mucous membrane. Pass the probang down to the glottis, and swab well about its neighbourhood, and you will do as much good as if you passed the sponge into the rima glottidis; and sometimes you will do more good and cause less irritation.

For some years past I have been in the habit of applying the solid nitrate of silver to the mucous membrane of the fauces, the velum, uvula, the pillars of the palate; and it may be brought very near to the laryngeal membrane by sliding the caustic along the posterior pillars of the palate some way down. By this treatment you may obtain results quite as satisfactory as by pushing the probang into the glottis, and in many instances more so; and the plan is, I think, on the whole, safer and more manageable.

I have been supplied by Mr. Matthews, the surgical instrument-maker of Portugal-street, with a modification of the ordinary porte-caustique, which is very useful for applying nitrate of silver to the throat. The caustic is placed in a case made of platina; this moves on a ball-and-socket joint, and may by that means be fixed at any angle. Its handle is constructed in telescope fashion, and may be drawn out to any length that can be required; so that, by its aid, you may apply the caustic very low down.

But in the application of nitrate of silver a great deal of caution is necessary. You must take great care not to apply it too freely, else you may cause too much inflammation and ulceration. In some cases, indeed, it is impossible to avoid these consequences; but, with due care, you need never find them so much as to be troublesome, and very often they are salutary. I always make the patient use the precaution of gargling his throat very frequently with the coldest water—iced water if it can be had—for some hours after the application of the caustic; and by these means inflammation is limited, and the parts strengthened.

If time permitted, I could tell you of numerous instances of coughs of the most troublesome kind, and of long duration, which had resisted all the ordinary cough medicines, and yielded to three or four applications of the nitrate of silver in the manner and with the precautions which I have described.

ORIGINAL COMMUNICATIONS.

CASES OF UTERINE HYDATIDS,

WITH REMARKS.

By FRANCIS H. RAMSBOTHAM, M.D., F.R.C.P.
Consulting Physician in Obstetric Cases to the London Hospital.

(Read before the Harveian Society, on Thursday, February 3, 1853.)

Of the various morbid affections connected with the generative organs of the female that we are called upon to treat, one of the most interesting is that disease known by the name of "uterine hydatids;" and this not only on account of the dangers to which in almost every instance the patient is exposed before a cure can be effected, but also because of the difference of opinion that has existed in regard to the nature and origin of the bodies themselves.

Some have considered them as the true parasitic hydatid; others will not concede to them an independent vitality; some think they can be formed within the uterus of a virgin, others that they are never produced except as a result of pregnancy.

Uterine hydatids, as we generally see them, consist of a large number of watery vesicles, varying in magnitude from that of a shot or small pea to the size of a large grape or gooseberry, connected to each other by slender foot-stalks, and all taking their origin from an adventitious, newly-formed, opaque membrane, which lines the uterine cavity like the decidua, through whose intervention, it would seem, that nutrition is supplied. The fluid contained within the cyst is usually perfectly limpid and colourless, except when tinged with blood, that may have transuded through their coats, and the coats themselves white, transparent, and glistening. They generally enlarge in size rapidly, and they appear, also, to increase in numbers while they continue resident within the uterus, so that that organ speedily acquires a very considerable bulk, accommodating itself to its enlarging contents; its increase in volume does not depend on mere distension, but on a dilatation of its vessels and a growth of its fibres similar to what takes place in healthy pregnancy. After an uncertain time, however, it becomes offended by the presence of these foreign bodies, and contracts for the purpose of expelling them from its cavity; and a quantity, varying from half a pint to a gallon, or even more, has, on different occasions, been evacuated together. It is at this time that the chief source of danger arises; for their expulsion is always attended with hæmorrhage; sometimes to such a profuse extent as to bring the patient's life into the most imminent peril, or even to result in death itself.

Formerly, as just remarked, the clusters of uterine hydatids, such as I have described them, were regarded by most physiologists as parasitic animals, and looked upon in the same light as the hydatids of the liver, kidney, and other viscera.

Linnæus and Percy held this opinion; and Dewees subscribed to the same doctrine. It has been, however, distinctly shown, that this kind of pellucid vesicle does not possess any real affinity to the ordinary hydatid parasite: consequently, a new theory was necessary to account for their origin; and the disease was said to consist in a peculiar change that takes place in the villous prolongations of the chorion surrounding the young ovum. Valisnieri thought them morbid enlargements of certain globules or pouches attached to what he considered to be the lymphatic vessels of the placenta; Ruysch regarded them as enlarged glands; Mad. Boivin calls them, after Morgagni, vesicular moles, and with Dubois, Velpeau, Desormeaux, and Montgomery, believes them to be hypertrophies of the villosities of the chorion.(a) Velpeau first described the shaggy excrescences of the chorion as being knotted throughout their whole length; and Mad. Boivin says they bulge out and contract again frequently; and she likens each to a string of beads. My own microscopical observation on the external covering of the young ovum coincides with this description; or, rather, under a moderately strong magnifying power the villous prolongations of the chorion may be seen to resemble a bunch of currants; and, indeed, to bear a very striking similarity to a quantity of uterine hydatids.

Thus, then, we find, that some physiologists believe uterine hydatids to be parasitic animals, and think they may be formed within the uterus of a virgin, as they might, indeed, infest any other organ; while others look upon the disease as a morbid condition of the ovum, and, consequently, ascribe its origin invariably to pregnancy. The general feeling of the scientific world at present is against the supposition that they are independent parasitical animals; and this has mainly arisen from the fact, that the fluid with which they are filled never contains any floating acephalocysts; and neither have echinococci been discovered in their cavities, nor, indeed, any of the hooklets or other débris of these creatures.

But there is still a third party, who, although they will not award to these bodies a state of separate vitality, yet think they may be produced in the virgin uterus. Sir Charles Clarke, though he seems to incline to the opinion, that they are not separate animals, says, "It is probable that the existence of pregnancy is not necessary for the production of the disease." Denman had previously expressed the same idea, and Gardien and Evory Kennedy hold with it also. From these conflicting opinions no little confusion and embarrassment have sprung up in connexion with this subject.

There are some instances on record which would seem to prove, beyond a doubt, that hydatids may be expelled from the virgin uterus, especially two, out of four, published by Dr. Andrew, in the Seventeenth Number of the *Glasgow Medical Journal*. These occurred in the persons of two girls of sixteen and seventeen years old, one of whom possessed a perfect hymen, and she had never menstruated. It is next to impossible that this young person could have been impregnated. How, then, are we to reconcile these conflicting opinions,—on the one hand, that the disease may originate in the virgin, and on the other, that a common cluster of hydatids is nothing more than a bundle of the villosities of the chorion in a state of hypertrophy, which, indeed, if the microscope is to be trusted, and the sense of sight can be relied upon, is undoubtedly the case?

I think we can clear up this seeming discrepancy by supposing that two diseases, perfectly dissimilar in their origin, character, and progress,—agreeing, indeed, in no respect, except that they both consist of a transparent cyst, containing limpid fluid,—have been confounded together.(b) Most of the viscera of the body are liable to be infested by the true hydatid; and why should we suppose the uterus exempt? If, as Dr. Budd explains, the proximate cause of the formation of hydatids,—in the liver, for instance,—is "the introduction of one or more germs of the parasites into the body under conditions favourable for their development;" if these germs are taken up by the absorbents, introduced into a blood-vessel, and carried by the force of the circulating current to a particular organ, are deposited there, become stationary and grow,—why may not that organ be the uterus, as well as the liver or the kidney? That this does happen, a case related by Mr. Wilton, of Brighton, in the *Lancet* for February 1, 1840, clearly proves.

A married woman, the mother of four children, the last six years antecedently, after suffering from severe symptoms of uterine distress for nearly a month, died rapidly under all the indications of internal hæmorrhage. A *post-mortem* examination discovered a large quantity of blood in the cavity of the abdomen, and a rent in the posterior part of the uterus, near the fundus, through which, when the coagulum over it was removed, and slight pressure was applied, "a small cluster of hydatids escaped." On cutting through the substance of the womb, a considerable mass of hydatids was also found protruding into its cavity through an opening in the upper and posterior part of the viscus, which, from the description of its site, would lead to the inference that it was exactly opposite to the aperture into the cavity of the abdomen. When partially removed, it was found that "the hydatids were imbedded in the *structure* of the uterus, the vessels being dissected into layers by them." The report goes on to say, that towards the fundus they *existed in nests* of various sizes. At the superior part of the fundus, between the fibrous structure and the mucous membrane, there was another mass, which separated the mucous membrane from its attachments, and formed a cavity of two inches in diameter. The peritoneal coat round the opening into the abdomen was also raised in the same way, in detached parts, from the subjacent parietes, by small clusters of hydatids.

There is no denying this to have been a case of true parasitic hydatid developed within the substance of the uterus, especially as they are described as *existing in nests*, which is never the case in the hydatids produced by the enlargement of the choroid villi. Indeed Mr. Wilton expresses his opinion that they must have originated in the *centre* of the *substance* of the fundus, and thence insinuated themselves both towards the peritoneal and mucous membranes. Had they not been so deeply seated, but placed close under or upon the lining membrane, they might have been expelled with little injury to the organ, and with but slight disturbance of the system, as happens in hydatids of the kidney.

Dr. Andrew's cases also would appear not to be like the ordinary clusters of uterine hydatids; for in one case he reports that a bag, the size of a child's head at birth, which contained fluid like water, came away before the larger mass; and in the other, the case in which there was a hymen, he states that a large bag, filled with glairy fluid, like the white of an egg, was expelled first, and afterwards a mass of vesicles containing the same kind of fluid. This is so unlike the fluid formed within the cysts in cases of hydatid chorion or placenta, that it presents an additional reason for believing the bodies described by Dr. Andrew to have been real acephalocysts developed within the substance of the parietes.

On the contrary, I have already expressed my opinion as to the correctness of the views promulgated by the French physiologists and Dr. Montgomery, that the common bunches of hydatid vesicles, as expelled from the uterus, are in truth a diseased condition of the flocculent villi of the chorion; and, if that be so, it follows that the two affections are perfectly different, and that the distinction between them has not been sufficiently made out and dwelt upon.

It appears to me that the disease, when it originates in a degenerated ovum, consists in nothing more than a dropsical state of the choroid villi. Each of these villi is a framework for the transmission of blood-vessels from the ovum into the deciduous membrane, to maintain the necessary communication with the mother; and under the microscope they are seen to terminate in pear-shaped bags, which evidently contain a very minute quantity of limpid fluid. If this fluid increases in quantity, the cysts which secrete it enlarge in proportion as they become distended; and this morbid change taking place in an immense number at the same time, the grape-like cluster of vesicles is produced which we call "uterine hydatids."

Of the two diseases, that depending upon the degeneration of the ovum is by far the most frequent; and it is this circumstance that has led to the belief, that "uterine hydatids" are formed only as a consequence of pregnancy. All the cases that have come under my notice have been of this description; and I have never seen the disease except in married women.

It is a matter of no small practical importance that this distinction which I have pointed out should be borne in mind,

(a) Erasmus Wilson and Dr. Hodgkin both look upon them as only formed by enlargements of the villi of the chorion.—See Report of Med. Chirurg. Society, *Lancet*, May 23, 1840.

(b) This seems to have been the opinion also of the late Dr. Ingleby. See *Lancet*, April 11, 1840.

for questions of the greatest consequence may depend on our knowledge of the subject. If, for instance, we were impressed with a conviction that no kind of hydatid formation could take place in the uterus, except as a consequence of the degeneration of an ovum, we might unjustly cause aspersions to be thrown upon the character of a virtuous female. But if we believe that the uterus is subject to two distinct diseases of a different kind, though somewhat similar in appearance and symptoms, that one of these diseases depends upon pregnancy, while the other is perfectly unconnected with that state, such a belief would induce us to be cautious in expressing an opinion, and would lead us to endeavour to establish some diagnostic marks between the two. This is a desideratum, and must be left to be worked out by future inquirers; for no attempt has hitherto been made to accomplish it, though it would be most desirable that the question should be set at rest, not only on account of perplexities that may spring up in the prosecution of forensic medicine, but also in the more ordinary affairs of life.

I shall say nothing of the disease mentioned by Sir Charles Clarke, of the single hydatid which the uterus has been known to contain, and which sometimes acquires a very considerable bulk, because I have never seen an instance of it, and am not, therefore, at all acquainted with it practically; but I shall proceed to the detail of the cases, for the purpose of bringing which forward I was originally induced to enter on this subject.

Case 1.—On August 2, 1851, I was requested to see Mrs. L., in Gray's-inn-lane, aged 45, the mother of twelve children. The youngest was born three years before, since which time she had been the subject of three miscarriages. The catamenia had been regular after the last abortion, till January 6, a period of twenty-one weeks, when a suspension for two months occurred, and she considered herself again pregnant; and this especially as she had the sympathetic feelings she usually experienced in that state. A slight, florid, sanguineous discharge then appeared, and, having lasted a few hours, ceased entirely. There was no return for seven weeks, the end of May, but, after that interval, a fresh draining occurred; and this had continued, almost without interruption, until the night before I saw her, more than two months.

She had latterly become very doubtful about her pregnancy, partly in consequence of this discharge, partly from her having increased in size very rapidly during the last six or seven weeks, but principally because she had felt no movement within the uterus. She considered herself, if pregnant, six months advanced, and she was as large as a woman at the full term of gestation. On my visit, at 2 p.m., I learned that she had been seized with the pains of uterine contraction about twelve the previous night, and that she had suffered them at intervals ever since; each pain was accompanied with an increase of discharge, though it was not to any great extent, until about noon, when it came on profusely. This induced the gentleman in attendance to make a vaginal examination, and he felt something soft protruding through the os uteri, and lying in the vagina. He easily brought it away, and it proved to be a mass of hydatids about the size of a man's fist, among the different vesicles of which was entangled a quantity of coagulated blood.

I found her agitated and rather faint, with a draining of blood still going on. The uterus could be easily defined through the abdominal parietes, its fundus reaching considerably above the umbilicus. The vagina was full of coagula, and the os uteri was dilated to a size larger than a crown-piece, thin as at the close of pregnancy, and very soft and flaccid. As the nature of the case was perfectly clear, and as it was evident that so long as these foreign bodies remained within the uterine cavity there would be great danger from the chance of continued flooding, I determined to empty the organ. Having divested myself of my coat, therefore, and bared and anointed my arm, I passed my hand without any difficulty through the mouth, which gave way with astonishing facility into the cavity, and removed nearly two quarts of hydatids, some of them as large as a gooseberry. In separating their attachment to the surface of the uterus, I was compelled to act as though I was removing an adherent placenta, and the operation occupied about two or three minutes. There was some increase of hæmorrhage while my hand was in the uterus, but no approach to syncope. Supposing there might still be a small quantity remaining, I introduced my hand a second time, took away as much as would fill a common-sized wine-glass, and satisfied myself that the cavity was quite empty. The uterus contracted as perfectly as after labour, and it could be felt hard and globular above the pubes. A discharge exactly resembling the lochia flowed for ten or twelve days; the patient progressed most satisfactorily; menstruated in about six weeks; the catamenia have been quite regular ever since, but she has not conceived again.

Case 2.—At six p.m., February 17, 1843, my advice was sought for Mrs. H——, Globe-street, Wapping, who considered herself seven months advanced in her eighth pregnancy; she had been, however, not sure of her state for some time, as she had increased very rapidly during the last month, and had not felt any fœtal movements. Besides which, for the last three or four months she had been subject to occasional irregular, slight, sanguineous discharges, and five weeks previously had suffered a profuse loss. On the afternoon before my visit, she was attacked with periodical uterine pain, attended by alarming flooding; and, at half-past five o'clock, expelled nearly a wash-hand basin full of hydatids. The hæmorrhage had almost ceased when I arrived; but soon after another mass the size of a small melon came away. This induced me to pass my hand into the uterine cavity, which I did with great ease, and emptied it of about half a pint more. Before removing my hand, I fully ascertained that there were none remaining. The uterus contracted closely; the hæmorrhage ceased entirely; a discharge like the lochia was furnished for a few days; and she was rapidly restored to her usual health. More than two years afterwards she brought a friend to my house as a patient; she said she had been very well since her recovery from the illness detailed, that the catamenial periods had been quite regular, but that she had not been again pregnant.

Case 3.—A lady, whom I had attended with her first child, in May, 1839, after menstruating three times, the last towards the close of January, believed she had become impregnated in the early part of February, 1840. I was requested to see her about the middle of March, in consequence of distressing vomiting which came on four or five times a-day. This was somewhat relieved by appropriate remedies, but by no means removed. On April 16th my assistance was again sought. I found her suffering periodical uterine pains, with some hæmorrhage, and I thought she would miscarry. The uterus was not then to be felt above the pubes; the os uteri was quite close, and gave to the finger the character it usually possesses at between two and three months of gestation. The pains soon ceased, but the bleeding continued for three days. An interval of ten days' cessation followed; and it then returned with a return of the pains. The sickness now harassed her more; she had bad nights, fell off in her appetite, lost flesh, her features became prominent and sharp; and her countenance, usually bright and cheerful, assumed an unpleasant expression, though not more so than we frequently see in the early part of pregnancy. She complained of a fixed pain within the left ilium. On May 13th, she vomited a little blood, but the same had happened to her also a year before. There was at this time some draining going on from the uterus, and the fundus could be felt just peeping up above the pelvic brim. The breasts, which had been very firm, became flaccid, and she suffered from headaches, to which she was not subject. From this date till May 20th she enlarged slowly; but after that day her increase in size was so rapid that the uterus could absolutely be observed to grow from day to day; and on the 30th its fundus had nearly reached the ensiform cartilage. The general bulk was as great as at the end of eight months of gestation, and the os and cervix were well developed, corresponding with the size of the uterus itself, and simulating its condition towards the termination of pregnancy. The mouth would admit the first joint of one finger, but nothing definite could be detected within. Nevertheless, I strongly suspected the presence of hydatids. I was hastily summoned on the morning of May 31st, about four o'clock, and I learned that the uterus had begun to act about one. Pains were then coming on every four or five minutes, and there was a slight sanguineous draining. The os uteri admitted two fingers readily, but it was very rigid; a soft mass could be felt within the cavity. Considerable hæmorrhage followed my examination, and she fainted. Fearing that the discharge might become dangerously profuse, while the state of the os uteri would prevent the passage

of the hand for the purpose of emptying the cavity, I requested a consultation with a former lecturer on obstetric medicine, who had attended her under a previous illness. This gentleman met me about half-past nine. In the meantime, the hæmorrhage had been controlled by the application of cold and other measures, and she had rallied. Three or four hydatids had also passed, placing the nature of the case beyond doubt.

It was very desirable, indeed almost necessary, that the uterus should be emptied speedily, but the condition of its mouth precluded the possibility of effecting that object by the hand; it was, therefore, agreed, that we should endeavour to break up the mass, so as to enable us to extract it piece by piece. Having no more convenient instrument at hand, my friend introduced the handle of a gravy spoon, and moved it about in all directions within the uterus, meeting with very little resistance, and stirring it round with some energy. While I had my hand on the external surface of the organ to steady it, I felt most distinctly the extremity of the spoon grating along the inside whenever it came in contact with the anterior portion of the parietes. I must confess that I was a little alarmed at this rather rough mode of proceeding, but it answered the purpose admirably; it did not provoke hæmorrhage; portions of the mass of different sizes being broken off passed into the vagina, and were easily removed by the fingers; and in this way, in little more than half an hour, we got away about three quarts of hydatids; the uterus seemed to be stimulated to contraction by the practice pursued, for it expelled portion after portion, and closed its cavity completely when the whole was brought away. Very little blood was lost during the operation, and the os uteri continued as rigid and little dilated to the last as it was when I first examined, so that any forcible attempt to pass the hand through it would most probably have been attended with fatal injury.

I left her at noon quite safe, and her recovery, though slow, was unchecked. I have attended her with seven children since this occurrence, the first within two years, and the last in October of last year. She has enjoyed excellent health all this time, and there has been nothing untoward in any of her labours, nor has she ever miscarried.

Case 4.—On March 17, 1839, a professional friend sought my advice for Mrs. P——, Waterloo Town. She had had three children, the last eight months before; this child she suckled for four months, when it died; she had menstruated once during the time she was nursing, and suspected herself again pregnant just before she lost her infant. She had begun to enlarge nearly four months previously, had increased rapidly, and for the last seven weeks had been the subject of constant bleeding from the uterus to a greater or less extent. On the 15th her professional attendant began to give her ergot, which seemed to produce uterine contractions, and an hour before my arrival she had expelled more than a quart of hydatids. She had flooded to an excessive degree, was quite blanched, very faint, and the pulse at the wrist was scarcely to be felt. As there was some discharge still going on, I attempted to introduce my hand for the purpose of emptying the cavity. The os uteri, however, was so little dilated and so rigid that I could not pass more than three fingers through it; nevertheless, by pressing the uterus downwards through the abdominal parietes, I managed to get a firm hold of something that I detected within, and extracted an hydatidinous mass of the size of an apple. The bleeding immediately ceased, and the next day she had rallied wonderfully. Febrile re-action, however, set in powerfully; she became the subject of intermittent rigors, which came on once or twice in the twenty-four hours, followed by heat and sweats, and she died exhausted on April 11th, her death being attributable solely to the loss of blood.

In all these cases the patients considered themselves pregnant, as indeed they were; in all, after a time, a very rapid increase in size took place; and every one, when the period of quickening had passed without any sensation of movement being experienced, began to doubt the reality of her suspicions; in all irregular hæmorrhages also appeared at different intervals. In these respects all the other cases that I have met with have been precisely similar to those detailed above.

It must not be supposed, that in every case of uterine hydatids it is necessary to remove the mass by manual operation; for I have seen some in which the uterus having expelled them quickly, contracted perfectly, stayed the hæmorrhage that had been previously going on, and thus placed the patient in a state of safety. But if the flooding, which is an invariable feature in this complaint, be great, and if the mouth of the womb will permit the passage of the hand without injury, it is by far better to empty the cavity at once than to wait for the protracted process of spontaneous expulsion. I may mention that I have not known any instance in which a woman has become the subject of this disease a second time.

7, Portman-square.

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

ST. BARTHOLOMEW'S HOSPITAL.

LARGE ANOMALOUS TUMOUR IN THE NECK, WITH GREAT DISTENSION AND VARICOSE ENLARGEMENT OF CLOSELY ADJACENT VEINS. — OPERATION. — DEATH.—AUTOPSY.

[Under the care of Mr. LAWRENCE.]

G. S., aged 46, a man of good constitution, with fresh and very healthy appearance, was admitted on January 6th, 1853, having consulted Mr. Lawrence some weeks before, when he was informed that an attempt might be made to relieve him by operation.

The left side of the neck was occupied by a tumour, reaching a little over the mesial line in front, filling the space between the jaw above and the clavicle below, stretching under the sterno-mastoid to the back of the clavicle, and ending indistinctly among the muscles at the side and back of the neck. The anterior portion of the disease was a prominent mass, the size of a large fist, of perfectly uniform surface, in front of the sterno-mastoid, under which the tumour was bound down, projecting again slightly behind it. The integument, of natural appearance and colour, was loosely connected to it, and could be pinched up into large folds. The substance was soft, much like that of an adipose tumour; the feeling at the posterior part could not have been distinguished from that of fluidity. It was now, as it had always been, perfectly free from pain, and could be handled and squeezed without causing uneasiness.

A vein—about the size, and taking the course of, the external jugular—passed obliquely over the swelling, joining at its posterior margin an immense trunk, which, keeping close to the disease, crossed the clavicle about its middle, then continued under the tumour, increasing in size, and advanced to the middle of the first bone of the sternum, where it ended in a congeries of tortuous and knotted veins, about two inches in width, which crossed over to the right side of the chest, and were there lost. At the lower edge of the tumour, this remarkable vein was fully the size of the thumb; and the vessels of the plexus in which it ended were not smaller than the little finger. The blood could be pressed completely out of this varicose mass, which remained empty so long as pressure was maintained on the large trunk below the tumour; it filled again immediately when that pressure was taken off. No pulsation could be detected in any part; but, when the stethoscope was placed on a level with the thyroid cartilage, a loud, rough, rasping murmur was heard, increasing in intensity towards the carotid artery, but clearly distinguishable at a distance of four inches from that vessel.

The appetite, the state of the tongue, the fæcal and urinary excretions, and the rest at night, as well as the clear aspect of the countenance, afforded every evidence of good health. There was no difficulty in breathing or swallowing, nor any irregularity or obstruction of circulation or respiration. The patient could take strong exercise, and had ridden hunting fifty miles the day before Christmas-day. He stated, that he had always enjoyed excellent health, and had led an active, laborious life. Ten years ago he had felt, while lifting a heavy weight, a "kind of giving way" in his neck, which was immediately followed by the discharge of about half a teacupful of florid blood from the mouth and nostrils; but no further consequences ensued from the accident. He soon ceased to think of it, and pursued his usual avocations. About five years ago he noticed for the first time a "small bluish lump" over the left side of the base of the lower jaw, extending thence into the neck. This swelling gradually enlarged downwards, and ultimately attained its present bulk, the increase having been especially rapid during the last month. The surgeons who had been consulted in the neighbourhood had not advised any operation. Two punctures, made not long since by a foreign physician, had merely given issue to a little blood.

The case was carefully examined, and considered by the surgical authorities of the hospital, and others who accidentally visited the institution, to all of whom it was equally novel; none had seen any similar disease. A suggestion was offered, that it might be a vascular structure, analogous to some cases of nævus. But these are either congenital in their origin, or first observed at a very early age. The bulk could not be lessened by pressure, as in the case of vascular growths; nor, excepting the great veins already described, was there any unusual distribution of vessels in or under the skin.

The opinions first given were decidedly unfavourable to operation, partly from the uncertainty respecting the extent and connexions of the disease at its base, partly from the fear that there might be obstruction to the venous circulation at the root of the neck or within the chest, in which case the great vein on the margin of the swelling might be connected with some neighbouring important venous trunk. Believing the growth to be of innocent nature, that the general venous circulation was free, that the peculiar vascular arrangement was entirely dependent on the swelling itself, and that the great anterior mass could, in all probability, be removed without danger, especially when its connexion with the parts behind had been cut off by ligatures, Mr. Lawrence thought that an attempt at relief by operation might be made, if the patient were willing to submit to a proceeding of dangerous character in itself, and uncertain in its effect as a means of entirely removing the mischief. This view having been generally adopted, and the patient being anxious for the attempt, the operation was undertaken on January 19th, the intention being to expose the anterior mass, to detach it from before backwards, and to insulate the detached part by strong ligatures, when the dissection had proceeded as far as it could be carried with safety.

When a small quantity of chloroform had been administered, the neck and face assumed the deepest livid tint, with enormous distension of all the veins. The great vessel under the front of the tumour, and its connected plexus, were alarmingly tumid, the former being fully equal in size to the aorta; the breathing became noisy, the lips and cheeks being puffed out at each expiration, as in apoplexy. When the patient had been raised into the sitting posture, these somewhat alarming symptoms soon passed off; but, as they had been induced by so small a quantity of the anæsthetic, Mr. Lawrence thought it safest not to administer any more, and the operation was accordingly performed without any further aid from this quarter. A grooved needle was first introduced into the front of the tumour, and carried to the depth of nearly two inches, when a small quantity of venous blood escaped. Mr. Lawrence then made another puncture further back, where there was a feeling of softness, hardly distinguishable from fluidity, with a like result. A longitudinal incision having been made in front of the tumour, its surface was soon exposed, presenting a pale, smooth aspect. It was then necessary to prolong the external incision upwards to the base of the jaw, and downwards to the sterno-clavicular articulation. A transverse incision was continued backwards from the middle of the first cut. The chief bulk of the tumour was now fairly exposed, and found to be connected in front and laterally by so loose a cellular tissue that it could be easily separated by the fingers. Had the whole growth been similarly circumstanced, it could have been enucleated without the use of the knife. In proceeding to detach it above, where, as well as behind, it was more firmly connected, veins were cut through, from one of which, divided close to the surface of the tumour, there issued a large stream of the darkest venous blood. It was necessary to tie it with a portion of the surrounding texture, in doing which the ligature came off twice on withdrawing the tenaculum, the blood streaming out copiously each time. The ligature was permanently fixed on the third attempt. Considering that larger veins must issue from the attached surface of the disease, which was firmly connected to the great vessels in the whole length of the neck, and that the blood, which flowed so profusely from a vein not very large, must be brought in by arteries of no inconsiderable magnitude, Mr. Lawrence considered it unsafe to carry the attempt at extirpation further, and proceeded to a measure, of which he had already contemplated the necessity, that is, the application of ligatures to the base of the partially detached portion, which might be nearly two-thirds of the whole mass; accordingly, a strong packing-needle, armed with stout twine, was passed through the middle of the base, which was tied in two portions, the ligatures being drawn as tightly as possible, to secure strangulation of the included substance. The operation, which did not last long, caused but little pain, except on drawing the ligatures, when the suffering was more considerable, but only temporary. The wound was covered by a piece of wetted lint, and the patient was then removed to bed.

Throughout the afternoon he was in a comfortable condition, not suffering pain. The pulse, ranging from 82 to 100, was full and soft. In the evening its frequency had increased to 120; and at midnight, as he had not slept, twenty-five drops of laudanum were administered.

January 20.—He slept well, and is free from pain; pulse 140, rather small, but jerking and compressible; tongue coated with a white fur; countenance anxious. The base of the tumour is not livid, nor is its temperature below that of the body, but its most prominent parts appear sodden and pale, and feel quite cold. In the course of the morning the pulse rose to 150. Vespere.—During the last few hours a thin watery fluid has oozed from around the base of the tumour, to the great relief of the patient; pulse 122.

The acetate of morphine was ordered at night, in the dose of gr. ½, to be repeated if necessary.

21st.—After the second dose of morphia, he slept for several hours; and this morning he feels better. Much fetid discharge from around the tumour; pulse still very rapid, 140 to 150.

Two doses of the morphia at night.

22nd.—Has slept fairly, and is much in the condition of yesterday; the pulse rather feeble, with sense of general weakness.

Ordered wine ʒviij., liquoris cinchonæ ʒj. ter die; morphiæ gr. ¼ vespere.

24th.—Pulse still rapid, and varying in frequency, sometimes small and weak. He takes food fairly. The tumour was cut away close to the ligatures, and was found to have been perfectly strangulated. The wound now presents a central, somewhat prominent, and completely disorganised mass, about three inches in diameter, yielding a copious fetid discharge, with a thick margin of surrounding parts in the most healthy state of granulation.

27th.—His state has varied considerably at different times during the last three days. He has been sometimes anxious and excited, at others quiet and able to sleep. The pulse has ranged from 120 to 160, with an irritable character, and frequently great want of power. Respiration is occasionally short and hurried, and he is much troubled with hiccough. The sloughing having extended beyond the ligatures, considerable portions of disorganised substance have been cut away. The broad margin of the wound presents a surface of florid, healthy granulations. Opiates are administered at night, and the free use of stimulants is found absolutely necessary.

28th.—Has passed a good night, the hiccough having ceased yesterday. The aspect, however, is dull and heavy; tongue slightly dry and brown.

29th.—Having remained but little worse through the day, towards evening his respiration became more and more hurried and difficult; gradually sinking, he died about half past 10 p.m.

In the middle of the day a slight hæmorrhage had occurred from the margin of the wound: it was easily arrested by ligature.

Autopsy Forty Hours after Death.—No rigor mortis. A large mass of the tumour remained in the neck, covering the great vessels, raising the sterno-mastoid, and extending behind that muscle. It adhered to the sheath of the vessels, and had separated the common carotid artery nearly three inches from the internal jugular vein, the pneumogastric nerve lying separately between them. Upwards it passed behind the base of the jaw, and downwards into the upper part of the chest, where it terminated abruptly between the internal carotid and subclavian trunks and the left innominata vein. The exposed surface of the tumour was still sloughing to the depth of about half an inch, the dark colour being gradually changed into that of the healthy texture, and the rest of the growth not being altered. Cut surfaces of the diseased growth exhibited a somewhat finely lobulated aspect, nearly approaching the conglomerated structure, as seen in the pancreas and salivary glands. There was the further resemblance of light pink colour and nearly similar consistence. It should be noted, in reference to this point, that the origin of the mischief had been distinctly referred by the patient to the immediate neighbourhood of the submaxillary gland. This origin was considerably remote from the thyroid gland, with which the tumour could not have been in proximity until it had attained a considerable size. The last-mentioned body was of normal magnitude and texture.

Portions of the tumour were examined microscopically by different independent observers, including several pre-eminent in histological researches. It was found to be composed chiefly of fat, partly in cells and partly floating free as an oily, half-solid substance. When treated with ether, a fibro-cellular matrix became visible, interspersed with some large cells. The general opinion was, that it was a tumour, possibly of glandular character at first, which had undergone fatty degeneration.

The great vein and large plexus of tortuous vessels, running across the chest, which had attracted so much notice during life, were found contracted to comparatively insignificant dimensions. Their coats were reddened by blood stain, but not changed in structure, excepting a slight thickening in two or three places; here, however, they contained no firm coagulum, fibrine, or pus.

One vessel, however, issuing from the tumour, was filled with a firm brownish clot, probably formed before death Its coats were healthy. The tortuous vessels contained blood, either fluid or recently coagulated. The lungs were emphysematous, and loaded with blood and serum, but not otherwise unhealthy. The cavities of the heart were not distended with blood, nor were there any evidences of obstructed venous circulation. The structure of the heart, liver, and kidneys was pale, soft, and flabby, and was found under the microscope to be in an advanced stage of fatty degeneration in each case.

The history of this case may impress on our minds the danger of neglecting morbid growths when they are small, painless, and not otherwise inconvenient, and of thus allowing them to increase indefinitely, especially in the neighbourhood of important organs. So long as it remained of moderate size, this tumour might have been removed easily, safely, and without any fear of return. The loss of life was owing simply to the increased bulk of the mass, and its consequent close connexion with important parts. Mr. Lawrence considered that the attempt at relief was justified by the circumstances of the operation, and the subsequent progress. The portion of tumour left behind was undergoing disorganization, and might have been entirely removed in this way, if the powers of the system could have borne the irritation accompanying the process—if there had not been a constitutional unsoundness, which, although not detected before operation, was clearly manifested after death by the fatty degeneration of important organs.

DISLOCATION OF THE FEMUR IN FRONT OF THE RAMUS OF THE PUBES.—REDUCTION.

[Under the care of Mr STANLEY.]

John Spedbury, a muscular man of middle stature, aged 36, was brought into the hospital sixteen hours after the occurrence of an accident, the particulars of which he stated as follows:—While walking in the street at a quick pace, during the previous night, he accidentally stepped into an open sewer about twelve feet deep. From this position he was extricated by some policemen and taken home, having been so much stunned by the fall that he could not remember the direction in which he had received the violence. The surgeons whom he had consulted detected a dislocation of the left femur, and advised his removal to the hospital. He had been quite unable to stand ever since the accident, and had suffered much pain about the joint.

On examination, the foot was found to be much everted, but there was no perceptible shortening. Passive flexion and extension could be accomplished to a considerable extent, but rotation in either direction was scarcely permitted at all. There was a very apparent prominence immediately below Poupart's ligament nearly four inches from the antero-superior spine of the ilium, and rather more than three from the symphysis pubis. This projection was supposed to be the head of the bone; it was rounded, hard, and unyielding, and when the limb was moved, could be felt to move with it. Both Mr. Stanley and Mr. Lawrence were of opinion, that this, which they concurred in believing to be the head of the bone did not present that globular and well-defined prominence in the groin which is usually the case in dislocations *on to* the pubes. From this, coupled with the fact that there was no appreciable shortening, it was judged probable that the bone rested, not on the pubes, but against its horizontal ramus immediately over the obturator foramen.

The man having been put under the influence of chloroform, a girth was passed round the groin, and fixed, as a means of counter extension, in a direction parallel with the trunk. An attempt at reduction by unassisted traction having failed, the pulleys were attached to the thigh, just above the knee, and, the man being laid on his right side, extension was made in the direction downwards and slightly backwards, and at the same time attempts were made, by means of a towel passed round the thigh, to lift the bone outwards. These efforts were kept up for twenty minutes without success, and, the pulleys having then been removed, the thigh was forcibly flexed on the pelvis to considerably beyond a right angle, and strongly rotated, in order, if possible, to alter the position of the head of the bone. Extension was then again resorted to, the man being placed on his back, and the pulleys attached just above the ankle. The force was applied in a direction downwards, and, after a few minutes, the head of the bone was perceptibly lower than at first; and in about a quarter of an hour it suddenly slipped into the acetabulum with a faint snap. The appliances were now removed, and the man taken to bed. He had been altogether nearly an hour and a half under the anæsthetic influence of chloroform; yet it must be noted, that no relaxation of the muscular action had taken place, the concluding part of the reduction being, in fact, accomplished by it, an in opposition to the enormous antagonistic force applied by the pulleys. By means of the latter, the head of the bone, was dislodged from its abnormal position, and brought into a line with the acetabulum; and no sooner was this the case, than by the contraction of the muscles it was dragged upwards into that cavity.

The man did not suffer any unfavourable symptoms. After the reduction he gradually regained the full use of the limb, and was discharged from the hospital in about three weeks.

For the particulars of the case we are indebted to the notes taken by Mr. Ludlow, the house-surgeon, under whom it occurred.

We have before us the notes of an interesting case of dislocation into the obturator foramen, which occurred some little time ago in the York County Hospital, under the care of Mr. Hey, and, as it compares in an interesting manner with the one just detailed, we shall not apologise for here introducing it Ralph Dennis, aged 50, a labouring-man, strong, and muscular, was admitted two days after he had sustained an injury from a severe fall backwards off the shaft of a cart, since which his left lower extremity had been quite useless. On examination, the leg was seen to be carried away from the other, the knee bent, foot everted, and the whole limb lengthened to the extent of an inch and a-half. Pain and tingling were felt down the course of the obturator nerve; the great trochanter was felt lower and more backwards than natural, and, by deep pressure in the groin, the head of the bone might be felt in the position of the thyroid hole. All attempts at motion gave extreme pain; but, on making forcible rotation, the head of the bone could be felt to move with the shaft. A counter extending strap was fixed round the pelvis, and the pulleys attached to a perineal band, in such a direction as to drag the head of the bone upwards and outwards; at the same time, by means of manual force applied to the ankle, extension downwards and external rotation were performed. When after about a quarter of an hour these extending efforts were relaxed, it was somewhat unexpectedly found that reduction had been accomplished, the bone appearing to be in its proper position, although no snap or other perceptible change had marked the time of its return. The man had a quick convalescence, and in about three weeks was able to walk out of the hospital.

DISLOCATION OF THE HIP CONSEQUENT ON ACUTE RHEUMATISM.

[Under the care of Mr. STANLEY.]

Displacement of the head of the femur from the cup of the acetabulum, as a consequence of scrofulous disorganization of the joint, although, we suspect, not nearly so common as is usually believed, is yet far from a rare accident. In the following case is an example of a much less frequent form of disease, and differing strongly from all scrofulous affections. In the latter, as is well known, the destructive processes have often proceeded to great lengths before the dislocation occurs, ulceration having often removed not only the edges of the acetabulum, but the head of the femur itself. Rheumatic inflammation is, on the contrary, essentially transitory, and seldom leads to destruction of the articulation. So far as we are aware, rheumatic dislocation not dependent on deposit of chalk stones, occurs only in the hip-joint, and even there with great rarity. The explanation of its occurrence, probably, is to be found in the fact, that here the muscles themselves supply, under certain conditions, a dislocating force, and are always ready to drag upwards the head of the bone as soon as it may be disengaged from the overhanging lip of the acetabulum. Now the articular head is in health retained in its place by atmospheric pressure, and by the confining power of strong ligaments. If, therefore, the latter be weakened and elongated by inflammation, and the former counteracted by intra-articular effusion, there is nothing to prevent the bone from being first protruded from the cup of the acetabulum, and then dragged upwards on to the dorsum ilii. Such, we suspect, was the nature of the morbid process in the following case:—

Louisa Garing, aged 14, dark-complexioned and robust-looking, was admitted on April 29, 1853. She had been induced to apply for advice on account of lameness in the left leg, which appeared shorter than the other. On measuring it, there was found to be an inch and a half real shortening, the antero superior spine of the ilium and the external malleolus being taken as fixed points. The symptoms of dislocation on to the dorsum were well marked. The head of the bone could be distinctly felt, and the distance between the great trochanter and the spine of the ilium was less than natural. The foot was inverted. The limb permitted of the freest motion in most directions, and there was neither inflammatory thickening nor pain about the parts. She could walk about without pain, touching the ground with her toes on the affected side. She stated, that nine months previously she had suffered an attack of acute rheumatism, marked by swelling of almost all the joints, profuse acid sweats, and general fever. This illness confined her to bed for twelve weeks, and, during the latter part, the disease had affected almost exclusively the left hip, which was

extremely painful. On recovering, she found herself in the condition above described. We must note that her family was very subject to rheumatism, her mother having had rheumatic fever. The condition of the hip was very different from that following strumous inflammation. No abscesses had formed; all pain, tenderness, thickening of parts, etc., had completely passed away, leaving a condition which, excepting by the history, could not have been distinguished from dislocation by violence. There was no obliquity of the pelvis.

The diagnosis, as we have seen, was perfectly easy, but not so the question of treatment. Of what use could it be to attempt to reduce a dislocation of perhaps six months' standing? In all probability a new articular cup had already begun to form. Mr. Stanley considering, that by inducing the new joint to form as low down as possible, so much gain to the length of the limb would be secured, determined to apply long continued extension. A strap round the pelvis was accordingly fixed to the head of the bed, and a cord attached to the ankle by a padded belt, was passed over a pulley at the foot of the bed, and to its end was fixed a heavy weight. In this position, which involved constant traction on the affected limb, the patient was kept for nearly three months; at the end of which time, as but little appeared to have been accomplished, it was deemed useless to persevere, and the patient was therefore sent home, having been fitted with a high-heeled shoe, so as to equalise the length of the two limbs. With that assistance she could walk with but a very slight limp indeed.

Mr. Stanley remarked, that the important lesson to be derived from this case, was the necessity of watching carefully all cases of acute rheumatism, in which were any symptoms of hip joint implication. Even if it were not found practicable, by the use of splints, to afford such support as should prevent the occurrence of dislocation, yet the surgeon would, at any rate, save his character, by warning the patient of the possible event of the case.

DISLOCATION OF THE HIP IN A CHILD.

[Under the care of Mr. STANLEY.]

It is well known that dislocations, as the result of violence, very rarely occur in children. Injuries to the bones are common enough, fractures, bendings, knocking-off of epiphyses; but amongst these dislocation is very seldom found. Some exception might perhaps be taken as it regards the elbow; but it is probable the accidents to this joint, usually diagnosed as dislocations, are not unfrequently attended with fracture also. In respect to the hip in particular, Sir Astley Cooper records a case in which a little girl, aged 7, had the femur displaced on to the dorsum ilii. The symptoms were well pronounced, and the reduction easily accomplished. He appears, however, very sceptical as to the accident occurring in many cases, remarking, "I have read of dislocations of the hip in children; but their history is that of diseases of the hip-joint, in which dislocation has arisen from ulceration."

The following case occurred in 1851.

Ann Smith, aged eighteen months, was brought to the hospital with the statement that she had a little while before received an injury to the left hip from an accident, in which her nurse fell whilst carrying her. On exposing the thighs there was a manifest deformity on the left side, the trochanter was carried upwards and appeared more prominent than natural. The foot was turned in wards, and the leg was three-eighths of an inch shorter than the other. The motions of the joint were impeded, but flexion and extension could still be performed, as also some degree of rotation. Abduction outwards was prevented. Mr. Stanley grasped the foot, and gently drawing it downwards and at the same time forcibly abducting it, the bone slipped into the socket with a perceptible movement. The symmetry of the thighs was at once restored, and the child was allowed to be taken home, directions being given to the parents to be very careful to avoid rough nursing. In commenting on this case Mr. Stanley remarked, that he had seen the accident in children of the respective ages of seven and five, but never so young as the present one. He pointed out, that in all probability the extent of flexion which was permitted depended on the imperfect development of the head and neck of the bone at this early age.

ST. THOMAS'S HOSPITAL.

DISLOCATION OF THE HIP IN A CHILD.

[Under the care of Mr. SOUTH.]

About two years ago there occurred at this hospital a dislocation of the femur on to the dorsum ilii in a child, aged six years. She had fallen before a cart, and the cart wheel had, it was stated, passed over her pelvis. The symptoms were very conclusively marked. Mr. South accomplished reduction without difficulty, in the usual way, and a perfect recovery resulted.

GUY'S HOSPITAL.

DISLOCATION OF THE HIP IN A BOY.—REDUCTION A MONTH AFTER THE ACCIDENT.

[Under the care of Mr. HILTON.]

George Smith, aged 5 years 6 months, a stout and healthy country boy, was admitted on January 12, with the statement, that he had sustained an injury to the left hip a month previously, from the effects of which he had not recovered. It appeared that, on Sunday, December 12, whilst at play in his father's stable, he had been knocked backwards with great force by the falling of a door. Some severe incised wounds on the head seemed at first to be his most serious injuries, but soon afterwards the surgeon's attention was attracted to the fact, that he could not move the left thigh. Fomentations were applied to the part, and the pain in a little time abated; but, as some deformity and want of power to use the limb remained, it was at length determined to take him to town in order to have further advice. Mr. Hilton carefully examined the part, and ascertained that a dislocation on to the dorsum ilii existed.

The symptoms, as obtained from the notes of Mr. Leach, the dresser of the patient, were as follows:—There was loss of the natural contour of the part, the great trochanter projecting, and being directed forwards and outwards. The foot was inverted, and the heel raised nearly an inch from the ground. There was no tenderness on pressure; some passive flexion and extension could be accomplished, and, when assisted, the boy could with some difficultly walk a little, stepping on his toes. On pressing deeply into the groin, an absence of the due feeling of resistance was perceived, and the *femoral artery did not appear to receive that degree of support from behind which it does in a natural condition of parts.* We must stop a moment, to ask attention to the latter symptom; it is one to which Mr. Hilton attaches great importance. The question, as to whether the head of the femur is in its socket, or displaced backwards may, Mr. Hilton believes, be easily determined in almost all instances, by comparing the amount of support afforded to the femoral artery in the two groins. Such examination is equally useful in forming the original diagnosis, and afterwards, in deciding whether reduction be complete or not. To return to our case, the boy having been put under the full influence of chloroform, an attempt at reduction was at once proceeded with. A towel having been passed around the perinæum was firmly held in a direction parallel with the trunk, and, by means of another towel fixed to the lower part of the thigh, extension downwards was made. This having been kept up for about three minutes, and, the limb appearing to be restored to its proper length, Mr. Hilton forcibly everted the foot so as to tilt the head of the bone forwards. This done, the extending force was removed, and, on examination, it was found that the femoral artery could not be pressed backwards as before, but was evidently supported by a solid substance; the symmetry of the pelvis was also restored to a considerable extent. No kind of snap had occurred at the time of reduction; it seemed, indeed, doubtful whether the head of the bone had really sunk into the cup of the acetabulum, since, on careful measurement, the limb was found to be three-quarters of an inch *longer* than the other. Mr. Hilton ordered a straight splint to be applied, as if for fracture, in order to prevent the bone from suffering a re-displacement. The patient was discharged on Feb. 21st, five weeks after the reduction, when he was able to walk with tolerable ease, and his limbs were of equal length. He had in the interim been confined to bed with the splint carefully adjusted, and, when measured each time of changing it, the lengthening was found to be diminishing. Mr. Hilton explains this curious circumstance by supposing that the acetabulum had, owing to the length of time which had elapsed since the accident, become filled with lymph, which required to be absorbed before the head of the bone could sink into its proper receptacle.

MR. BRANSBY COOPER'S CASE OF OBTURATOR HERNIA.

In our last notice of this case, we mentioned that the patient was suffering from a severe bronchitis, which has, we regret to say, since terminated fatally. As far as the hernia was concerned the cure was complete, the wound being healed, and the action of the bowels restored to perfect regularity. She had, in fact, been transferred to the care of Dr. Addison. Blisters to the chest and other measures were had recourse to, but in spite of them she succumbed to the disease, and died on the 10th inst. From Mr. Maunder, one of Mr. Cooper's dressers, we have the following note of the autopsy:—The right obturator foramen had a much larger opening in its upper border than was the case on the opposite side; through this opening protruded a small hernial sac, which adhered

firmly to the muscles with which it was in contact, namely, the pectineus and obturator externus.

In the thorax, in addition to general acute congestion of the mucous lining of the smaller bronchial tubes, the apex of the right lung was in a state of grey hepatisation. The lungs contained much bloody serum.

The left kidney was converted into a mere sac, most of its tissue being destroyed, and in its pelvis was found a calculus of considerable size.

The gall bladder contained biliary concretions.

It will be remembered that it was noted in the history of this case, that the patient had repeatedly suffered attacks of sudden pain in the abdomen, and other symptoms of strangulated hernia, which subsided spontaneously after the space of a few hours. These seizures she described as having been exactly similar to the commencement of that for the relief of which the operation was performed. Now, taking this circumstance in conjunction with the fact, that an old and adherent sac was found after death, may we not conjecture, that, on these occasions, a protrusion had taken place, which, after a time, became spontaneously reduced. Such a supposition derives strength from the circumstance, that obturator herniæ seldom or never have close strictures. In Mr. Hilton's case, to which we alluded before, the history of previous attacks was precisely similar. Possibly obturator protrusions may, after all, be rather more frequent than they are supposed to be. At any rate, a careful examination of this region should never be omitted in cases of suddenly occurring and unexplained symptoms of intestinal obstruction, more especially if the patient be a woman. There is one means of diagnosis to which we would invite attention, viz., percussion. The intestine is almost always distended, and, if the protrusion were of any size, notwithstanding the thickness of the superimposed parts, a dexterous percussor would, in all probability, be able to elicit very useful information.

CENTRAL LONDON OPHTHALMIC HOSPITAL.

OSSEOUS CATARACT.

[Under the care of Dr. TAYLOR.]

It has long been known to the Profession, that the injurious effects of a foreign body embedded in the eye are not confined to the organ itself, but that the other eye is liable to be impaired, or even destroyed, by sympathetic inflammation. It may not, however, be so generally known, that the textures of the eye itself, under certain pathological conditions, may act as foreign bodies, producing the same distressing symptoms, and requiring operative means for their removal. This fact is well illustrated by a case which lately occurred in the hospital, under the care of Dr. Taylor.

The patient, a man 35 years of age, received a punctured wound of the eyeball fourteen years ago; inflammation ensued, vision was totally lost, and the eye gradually became atrophic. He suffered no further inconvenience until a few months previous to his admission, when the injured organ became exceedingly troublesome; there was constant conjunctival inflammation, intolerance of light, spasm of the eyelids, and frequent and severe attacks of pain of a neuralgic character. His chief source of anxiety, however, was the condition of the other eye, the sight of which had become so weak as to prevent his working for more than a few minutes at a time.

The injured eye was about one-fourth less in size than its fellow, and soft and flaccid to the touch; the cornea was dull and glassy-looking, and did not measure more than one-fifth of an inch in diameter; the conjunctiva was covered with large, tortuous vessels, through which a faint pink ring could be seen encircling the cornea; the spasmodic closure of the eyelids rendered it difficult to obtain a clear view of the pupil, but a cataract, of a dull straw colour, could be seen lying in the posterior chamber, and pressing apparently against the iris.

Various palliative remedies were tried, but without affording permanent relief, and, as the vision of the other eye became rapidly weaker, the patient willingly consented to have the cataract, which was evidently the source of the irritation, removed.

The operation was accordingly performed on the 14th July. After putting him under the influence of chloroform, Dr. Taylor divided the cornea by the upper section, as in the ordinary operation for extraction, and, as the opening thus made was very limited, owing to the atrophied condition of the cornea, enlarged the incision on each side, through the sclerotica. On introducing the curette the instrument grated as against a piece of stone. The cataract was firmly adherent to the subjacent parts; but the iris was free. Pressure had not the slightest effect in dislodging it; it required considerable manipulation and no small degree of force before it could be removed by a small but strong hook; it came away entire, and without any escape of the vitreous humour.

The man suffered a good deal of pain during the first night, but not afterwards; the wound healed rapidly; the irritation completely subsided in the other eye; he left the hospital in a week, and three weeks after the operation he was again at work.

The cataract was of a straw colour, semi-globular in form, smooth and regular in front, rough, tubercular, and flattened posteriorly where it had been adherent. Here a small portion of the lens in a softened condition was visible, and when this was removed the osseous deposit was found to have involved not merely the capsule, but the greater part of the lens also, which was converted into a solid mass of stony hardness. This condition of the lens is of very rare occurrence. Mr. Wardrop, Mr. Tyrrell, and M. Desmarres have each met with one instance, but in every other case of osseous cataract, so far as we are aware, the change has been confined exclusively to the capsule, forming a thin shell, which, by breaking under the instruments employed for its removal, adds to the difficulty of the operation.

Our limited space will not permit of any further remarks upon several interesting points in the pathology and treatment of osseous deposits within the eye; but we cannot conclude without calling especial attention to the firmness with which the lens adhered to the subjacent parts in this, as well as in several other instances recorded in the journals, a complication not alluded to by any of the systematic writers, with the exception of M. Desmarres, and one which might occasion considerable embarrassment to an operator ignorant of the possibility of its occurrence.

ABSCESS WITHIN THE ORBIT, PRODUCING CHEMOSIS, BY WHICH THE VITALITY OF THE CORNEA WAS DESTROYED, AND THE EYE LOST.—SECONDARY DEPOSIT OF PUS IN THE BRAIN, CAUSING DEATH.

[Under the care of Mr. HAYNES WALTON.]

The patient, a tall and slender girl, 15 years old, was sent to Mr. Walton, by a surgeon in the city, on the 17th of December last, in the following state:—There was an abscess, but not a large one, pointing just under the upper and inner angle of the left orbit. The palpebræ were a little swollen, the upper one somewhat shortened, and the tarsus elevated, from the effects of former abscesses. The eyeball was entirely surrounded by a very prominent chemosis, that covered all the cornea, except a small central bit, which was quite bright. Vision was unaffected, but there was intolerance of light, caused by the constant exposure of the eye, for the lids could not be closed on account of the injured palpebra and the chemosis, and to remedy which she wore a bandage. There was a little, but only a very little, purulent secretion from the conjunctiva.

The history runs thus:—Four years ago the girl had an abscess at the upper part of each orbit; they burst, and healed after discharging a few weeks. There were several recurrences of these; the last interval being a duration of about three months. Now, for the first time, only one orbit is the seat of suppuration.

Mr. Walton pointed out to the mother of the girl the necessity of the abscess being opened, and the chemosis freely divided, and the imminent danger to the eye in case the latter was not executed. Such treatment, however, was positively objected to by her.

On the 21st, three days after, she was again brought to Mr. Walton, in a very debilitated state; when he last saw her she was not feeble. The abscess had burst, and the chemosis had subsided a little, but, unfortunately, the cornea had become opaque and ash-coloured. Being in great pain, she now desired to have anything done that might relieve her sufferings and restore her sight. Mr. Walton divided the chemosis, to afford a chance, if, indeed, any remained, of saving the cornea; but its vitality was lost, and the greater part of it separated while some blood was being wiped from the surface of the eyeball, leaving the iris and the lens exposed. He also enlarged the abscess aperture. In four days the pain in the eye had ceased, and the chemosis had nearly subsided, the abscess discharging all the while. The poor girl now thought that her sight would be saved, for she could discern large bodies; but this respite of vision was soon lost by the pupil closing. She continued to improve in health, and the abscess secreted less.

On the 1st of January she complained of occasional slight headache; on the 3rd, she kept her bed, yet took her food with a tolerable appetite. Her father went to fetch her some drink, at her own request, and when he returned in a few minutes, she was dead. Mr. Walton obtained leave to examine the head, but that only, and has kindly allowed us to make the following condensation from his notes:—

Post-mortem Three Days after Death.—The brain was first examined. The surface, that is, all which was visible by the removal of the calvarium, was not abnormal, nor were its membranes unhealthy; but within the centre of the anterior lobe of the left hemisphere, was a deposit of about a teaspoonful of pus, the cerebral matter around being slightly broken down. Attention was carefully directed to ascertain if there was any communication between this and the abscess in the orbit, but none was detected. The parts passing through the several orbital foramina were perfectly healthy, and the only other indication of disease within the skull was the readiness with which the dura mater could be separated from the orbital plate of the frontal bone. The orbit was now inspected. Between the periosteum and the roof of this cavity the original abscess was found to be situated; less pus was here than in the brain. The several tissues in the orbit were perfectly normal. The eyeball was partly collapsed, but its tunics were natural. The entire portion of the upper wall of the orbit, including the superciliary ridge, presented the appearance that is characteristic of chronic inflammation of bone, and the superciliary ridge of the other orbit exhibited the same, but in less degree.

The following points in this peculiar case demand attention:—

1. The symmetrical appearance of the primary affection, each orbit having been attacked alike; this being significant of the constitutional origin of the complaint.

2. The purulent, or secondary deposit, as such collections are generally called, within the brain; the principal peculiarity being the rareness of such an occurrence in this organ.

3. The mildness of the cerebral and general symptoms in conjunction with so great a lesion of the brain, for there was almost an absence of constitutional disturbance—if the report of the mother be accredited—there being no febrile manifestations, and but little depression, after the severity of the acute attack of suppuration in the orbit had subsided, and at the time when the cerebral disease was going on; and but slight headache, without any paralysis, and without sickness or mental aberration.

4. The production of chemosis, from abscess within the orbit, to a degree sufficient to destroy the cornea, and by that the eye. This, bearing as it does on what may be termed the surgery of the case, admits of several practical observations.

The cases in which chemosis is usually injurious, are those of purulent ophthalmia, whether arising from inoculation, injury of a mechanical nature, atmospheric, or other causes; and in those the conjunctiva seems to be the structure primarily affected. Here, however, is a remarkable exception; the conjunctiva was raised around the cornea, and partly covered it, as a secondary result of an abscess in its vicinity. Perhaps a similar effect is produced in those instances of destruction of the eyeball, in phlegmonous erysipelas of the head and face. The eyelids being closed by their tumefaction, precludes a sight of the state of the eye, and the changes that are being effected in it.

The opportunity of dissecting the eyeball in the case under consideration, whereby all its proper tunics, except the cornea, was discovered to be healthy, demonstrates in the most direct and unmistakable manner the fact, that the destruction of the organ was directly produced by the mechanical interference with the nutrition of the cornea by the chemosis, its supply of nutrient material being partly or entirely arrested, a result which must always supervene when chemosis arrives at a certain density, for it is the nature of the fluid effused in the sub-conjunctival areolar tissue on which the effect of the chemosis depends. Mere effusion of serum, although the conjunctiva may be considerably raised, matters nothing. Very different is it, however, when the effusion is of a fibrinous nature, the result of an attack of acute inflammation.

Although, through the perverseness of the poor girl, the period for the effective treatment of the ocular disease has allowed to pass, and there is no scope for clinical remarks concerning the result of the measure adopted—namely, that of incising the conjunctiva—it may not be out of place to describe Mr. Walton's method of executing this, the most effective manner, as modern practice shows, of dealing with that dangerous state of the eye.

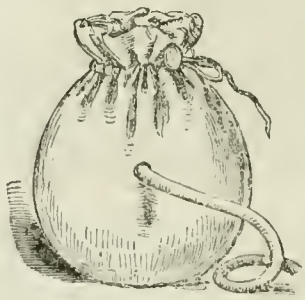
Mr. Walton employs a small curved knife, as he considers a straight one insufficient for the purpose, because it cannot be carried effectually through the chemosis, that is, through the entire extent, without wounding the lid, and, perhaps, the eyeball also; and it should be borne in mind, that the result of the operation mainly depends on the manner of its execution.

The eye is fairly opened, the upper lid raised with the lid retractor by the operator, who stands behind the head of the patient, the lower depressed by an assistant. The curved knife, held vertically, is introduced at the edge of the chemosed conjunctiva (Mr. Walton usually divides the lower part of the chemosis first,) and carried along the surface of the cornea and the sclerotica to the sinus of the lid, the handle then depressed, so that the palpebral chemosis may be reached by the instrument; this is then traversed by the blade, and the whole divided by an outward stroke. Three or four incisions are thus made. The division of the upper portion of the chemosis is not so readily effected, in consequence of the different construction of the lid, and the necessity of using the retractor; but the impediment is readily overcome, by applying the retractor first on one side of the lid, to make room for the knife, and then shifting it to the other. An active and intelligent assistant is required to use the sponge frequently, that the operator may have a constant view of the course of the knife; and, unless the eyeball is freed from blood, it is not possible to enter the knife safely or correctly.

NEW INVENTIONS.

MR. HUTCHINSON'S AIR-COMPRESSOR OF THE TESTICLE.

In the treatment of the various inflammatory enlargements of the testis it is now generally admitted that few measures are so efficient as the application of pressure. As ordinarily effected, by means of strapping with adhesive plaster, it is, however, liable to several drawbacks. The adaptation of the straps is not easy, and, if awkwardly done, occasions great pain. In order to secure progress, it is necessary very frequently to change the plaster, for the casing ceases to be useful as soon as the enclosed gland has yielded to the compressing force. These removals and re-applications of the dressings occasion great loss of time to the surgeon, and pain and inconvenience to the patient. To obviate these objections, an apparatus has been contrived by Mr. Hutchinson, which consists of a double bag (on the principle of the double nightcap) with the cavity of which a tube communicates. The whole is constructed of air-tight material, and to the end of the tube, which is long and flexible, a small screw-cock is affixed. The enlarged testicle having been put into the involuted bag, the latter is kept in place by means of a riband tightly tied round the cord. Air is then blown through the tube into the cavity of the bag, and compression of the enclosed gland is effected, just as would be the case with the lung if air were forced into the pleural sac. When filled as full as the patient can comfortably bear, the screw-cock is closed, and the air retained. As soon as by diminution in the size of the testicle the tension has become much lessened, a little more air may, without any necessity for changing the apparatus, be blown in, and thus a condition of constant and equable compression is sustained. With regard to putting on the bag, no more difficulty is found in insulating the affected organ than is the case in applying strapping. The support afforded is very comfortable, and the inflamed part being protected on all sides from friction, blows, etc., by a cushion of air, the patient can walk about, or follow his usual avocations. It must, however, be admitted, that the bulk is considerably greater than that of a merely strapped gland. Its chief disadvantages, as far as it has yet been tried, appear to be, that, from being made of non-permeable material, it entirely confines the cutaneous exhalations of the part, and also that the skin beneath the constricted neck is little liable to excoriate. For the sake of cleanliness, therefore, the bag should be removed, and the skin washed once a day; if necessary, the latter may be smeared with oil, or protected by a layer of oiled silk. If the case be suitable, a piece of lint, smeared with mercurial ointment, may be wrapped round the testicle, and the bag applied over it. The cases in which Mr. Hutchinson has proposed to use his invention are chronic and subacute inflammation of the gland, varicocele, some peculiar forms of hydrocele, after paracentesis, and possibly malignant affections.



The apparatus here figured is from one made by Mr. Fergusson, of Giltspur-street, of whom it may be obtained. Mr. Fergusson has added to it straps to go round the loins, by means of which it becomes a suspensory bandage also.

LIST OF SCIENTIFIC MEETINGS.

This Evening, Feb. 26.—Royal Institution.—*Subject:*—"On the Philosophy of Chemistry." By Professor A. Williamson. Three o'Clock.

——— ——— Medical Society of London.—*Subject:*—"On the History of a Few Cases to illustrate the Use of the Forceps in Difficult Labours." By Dr. Murphy. Eight o'Clock.

Monday, February 28.—Royal Institution.—*Subject:*—"On Organic Chemistry." By Dr. A. W. Hofmann. Four o'Clock.

Tuesday, March 1.—Royal Institution.—*Subject:*—"On Animal Physiology." By T. Wharton Jones, Esq., F.R.S. Three o'Clock.

——— ——— Pathological Society of London. Eight o'Clock.

Wednesday, March 2.—Royal Institution.—*Subject:*—"On Organic Chemistry." By Dr. A. W. Hofmann. Four o'Clock.

Thursday, March 3.—Royal Institution.—*Subject:*—"On the General Principles of Geology." By J. Phillips, Esq. Three o'Clock.

——— ——— Harveian Society.—*Meeting of Council.* Half-past Seven o'Clock.

Friday, March 4.—Royal Institution.—*Subject:*—"On the Constructive Principles of the Principal Styles of Architecture." By E. A. Freeman, Esq. Half-past Four o'Clock.

——— ——— Western Medical and Surgical Society.—*Subject:*—"A Case of Obstruction of the Bowels of Several Days' Standing, with Acute Symptoms, cured by Galvanism." By Dr. Cahill. Eight o'Clock.

Saturday, March 5.—Royal Institution.—*Subject:*—"On the Philosophy of Chemistry." By Alexander W. Williamson, Ph. D. Three o'Clock.

Medical Times & Gazette.

SATURDAY, FEBRUARY 26.

CONDITION OF THE ASSISTANT-SURGEONS IN THE NAVY.

We last week inserted two extracts, one from the *Times* and the other from the *United Service Gazette*, which were seen by ourselves, and which, we are sure, will be perused by our readers, with very different feelings. In the first case, the commander of a small vessel, the Espiègle, finding that no accommodation had been provided for the Assistant-Surgeon appointed to the ship, generously gave up one of his own cabins for the entire use of that officer. In the second case, we read that an Assistant-Surgeon, who had passed the examination qualifying him for the rank of surgeon, had been appointed to the steam-frigate Desperate, and expected the cabin accommodation which, under existing regulations, is said to be afforded to gentlemen holding his rank in the naval service. Finding, however, that no cabin had been provided for him, he made an application to the Commander-in-Chief, and the result was, that the dockyard authorities were ordered to report upon the case, and to state whether the necessary space could be afforded without inconvenience to the service. A report was accordingly drawn up, in which it was stated that a cabin might be built without any difficulty, and in this report the captain of the ship fully concurred. On this memorial being presented to the Admiralty, the request of the Assistant-Surgeon was decidedly refused.

Our Contemporary (the *United Service Gazette*) from whom the last extract is taken, draws the attention of the Admiralty to the Circular issued in July, 1850, upon this subject, in which it is stated, that "first-class assistant-surgeons are to be entitled to cabins where space and accommodation will permit."

We hope that the information thus conveyed to the public may turn out to be erroneous; but, assuming the facts to be correct, we have again opened for our consideration a question which we believed had been definitively set at rest. As we fear, however, that the statement may be too true, and as it is too often the habit of the powerful to oppress the weak, unless public opinion steps in between the oppressor and the oppressed, we make no apology for again offering some remarks upon the position which an assistant-surgeon ought to occupy in the ship to which he is appointed.

While this article was in type, a discussion took place in the House of Commons upon this subject, Captain Boldero again pressing upon the Government the claims of the Naval Assistant-Surgeons. We regret to find that the answer made to the gallant captain on the part of the Government was not so satisfactory as we could have wished, and we have, therefore, additional reason to resume the consideration of the question in our pages. In a leading article of the *Times* of Wednesday last, the discussion in the House of Commons is very ably treated, and we are happy to find that many of the remarks made by our powerful Contemporary are in accordance with our own views.

At no distant date in the history of the Navy, very young men were taken into the service under the name of surgeons' mates, who might fairly be regarded as pupils or apprentices of the surgeon, and who, as not being regular members of the Profession, but only novices, very properly occupied a subordinate rank. These persons gradually rose to the position of surgeons, just as a student rises to be a member or fellow of a college. But the improved state of medical education, the increased demands of the Medical Examining Boards, and the diminished necessity for medical officers in the navy in time of peace, have entirely changed the social position of the assistant-surgeon, who has entirely displaced the surgeons' mate of former times. The analogy of the assistant-surgeon with the midshipman, which has often been drawn, by no means holds good; and they cannot with any reason be looked upon as officers of the same rank. The midshipman is sent from school at the age of fourteen or fifteen (in war time he was sent much earlier) to learn the nautical profession; he is put under the direction of a schoolmaster to learn mathematics and navigation; and in six years he is prepared to pass his examination in these and other subjects connected with the management of ships, before becoming a lieutenant. The medical aspirant, on the contary, is sent, not to sea, but to the practical study of medicine and the collateral sciences on shore. He undergoes a laborious preparation by dissections, by attendance on lectures and hospital practice, and by private reading, for the performance of medical and surgical duties. He passes his examination, and thereby becomes *de facto* a gentleman, and, as such, is qualified to mix in any society into which he may be thrown. It has sometimes been urged, indeed,—and we have heard this argument used by captains in the service,—that the assistant-surgeons are often raw and inexperienced youths, whose education and manners are not such as to entitle them to join the superior officers in a ship of war. To this calumnious assertion two considerations may be opposed: first, that the injurious and insulting manner in which the assistant-surgeons have so long been treated may not unnaturally deter the higher orders of medical graduates from seeking admission into the service, and thus leave the field more open to persons of inferior education and attainments; and, secondly, that the Director of the Naval Medical Board has it in his power to prevent the latter class from joining the service. We maintain, however, that, when a

gentleman has passed his examinations before the constituted authorities in medicine and surgery,—when he has been again examined by the naval medical authorities and appointed to a ship, he is above the level of a midshipman. The latter enters the ship to *learn* his profession, the assistant-surgeon enters to *practise* his; the former has gained his experience at sea, the latter has learned his on shore. We wish to draw no invidious distinction between the profession of war and navigation and that of medicine; the two are worthy of all respect in their different spheres; but we do assert, that the assistant-surgeon ought to be peculiarly a man of learning, and that no man can be expected to study his Profession amidst the noise and tumult of a midshipman's berth.

As to the distinction which has been drawn between the Professions, that one is a fighting one, and that the other is not, and as to the superiority which has been in consequence claimed for the former, we think it unnecessary to argue the question; for, on innumerable occasions, the medical branch of the service has shown itself willing, and even eager, to endure the perils of actual warfare with the rest of the ship's company; while, in case of pestilence, the medical officer is peculiarly liable to become the victim of the disease which he is struggling, with all the energies of his mind and all the appliances of his art, to avert from his comrades.

QUEEN'S COLLEGE FOR LADIES.

Medical students who diligently attend the courses of lectures prescribed by the licensing bodies consider themselves well worked, although at no time are they advised to attend to more than four subjects during the same six months, or more than four lectures on the same day. And, in verity, to keep up the attention for four consecutive hours is no small mental exertion. We remember a teacher of medicine —himself in his early days one of the most distinguished students in one of the largest medical schools in the world—saying that six hours daily mental effort was as much as he ever knew a man capable of for any length of time, without injury to his mind or body. But, however different may be the opinions on this point in reference to men, we should have supposed, that, in regard to the weaker sex, the statement would have admitted of no question,—that all reasonable men would have been agreed on the impropriety of subjecting young females to a mental training exceeding in severity that imposed on students of medicine.

Our attention has been called to this subject by a physician who informs us, that he has had occasion to see more than one of the lady pupils at the Queen's College, in Harley-street, in consequence of their having yielded to the temptations to over mental exertion held out to them at that institution.

The Queen's College is especially intended for young ladies qualifying themselves as governesses. The instruction is conveyed to the pupils by means of lectures, delivered by men of the highest reputation in the branches of science and literature they respectively teach.

Among the subjects discoursed on to these young ladies are Greek, Latin, Geometry, Algebra, Natural Philosophy, Astronomy, Mental and Moral Philosophy, Logic, and Theology, Botany, Chemistry, Geology, and the useful arts!!!

For five or six hours in succession are girls, between the ages of 17 and 20, daily lectured to at the Queen's College on these subjects,—subjects, it will not be doubted, calling for as much reading, and as great mental exertion, as any comprised in the curricula of the Apothecaries' Society, the College of Surgeons, the College of Physicians, or the Universities of Dublin, Edinburgh, or London. Who can wonder that the result is what we are told it is? A paper is now being extensively signed by the leading members of the Profession, expressive of their conviction, that a knowledge of the Principles of Physiology is most desirable for schoolmasters. May we not add, that a knowledge of cerebral physiology is essential for those who undertake the management of such Institutions as that on *one* fault of which we are now touching?

It is really too bad, on the part of the Committee, to offer to those who lay the foundation of serious organic diseases in their "College," the beggarly reward of a certificate, stating that they are mentally qualified to undertake the duties of a governess. Why not enter into an arrangement with the Senate of the University of London, by which their pupils might obtain a Degree in return for their ruined health? Perhaps a real advantage might follow—Female Bachelors and Masters of Arts, or rather Maids and Mistresses of Arts, might receive somewhat higher salaries, and enjoy a little more consideration in the families of the noble and wealthy than these certificated damsels; they might possibly, then, be as highly estimated and as well paid as ladies' maids and cooks. With this, however, we have nothing to do; but it is a duty we owe to society to call the attention of the Committee to the sacrifice of human health and life they are offering up, with no other practical result that we can see, than the supplying those who require to have their children highly educated at a low price, with governesses who will do the work for which several masters ought to be paid.

SANITARY IMPROVEMENT.

In a paper remarkable for perspicuous language, sound reasoning, and elevated sentiment, Mr. Grainger laid the results of his investigations respecting the origin and propagation of epidemic diseases before the Epidemiological Society at its last meeting. An abstract of this communication is contained in our Reports of Societies, and all who are interested in the sanitary improvement of the country should not fail to peruse it attentively. So much has been written and spoken of late years concerning this subject without effect, that we almost despair of seeing any efficient measures for the prevention of epidemics adopted during the present generation. To keep the popular energies steadily directed to the gradual annihilation of gigantic evils, to prevail on individuals to disregard personal interest and smother personal animosity, and unite themselves as one man for the public good, is at all times difficult, and this difficulty becomes almost insuperable when the disastrous consequences of apathy are more or less remote, and not readily appreciated. Invasion by a foreign foe, pillage, and defeat, are contingencies to which all are alive, and considerable alacrity has accordingly been manifested in guarding against them. The militia must be organised, and the naval marine extended, to preserve us from problematical assaults, while an enemy is at work among our population, whose ravages are beheld with little anxiety, and are permitted to proceed unchecked by any effectual resistance. Yet the attacks of this antagonist are stern and incessant, constituting sources of mortality more fruitful than the sword. Pestilence, under its various shapes, gathers, in a few years, from London and Manchester alone, as many victims as have been yielded by the whole Peninsular war; and, notwithstanding, we are at the present

moment far worse prepared to resist an outbreak of cholera than to dispute the progress of 150,000 Frenchmen in full march for London. In sanitary matters, for aught we can see, the nation is very few degrees advanced from the position it occupied ten or twenty years ago; it has made one or two forward steps, and then paused, as though astonished at its own temerity. How long must this inaction continue? How long shall public bodies refuse to take those precautions which experience and science alike proclaim to be indispensable to the safety of society? We were ready to answer, For ever! but remembering to whose hands the seals of the Home Office have been committed, we indulge in the hope, that, if energy and decision at head-quarters can insure similar qualities elsewhere, something may yet be accomplished worthy of the name of sanitary reform.

MEMORIAL TO THE LATE DR. PEREIRA.

By a notice in our advertising pages, it will be seen that it is in contemplation to form a subscription for a memorial to the late Dr. Pereira, whose services in the cause of medical science are well known to the Profession, and whose untimely death has lately been noticed in the medical journals. Among the subscribers appear the names of many gentlemen educated at the London Hospital, of the colleagues of the late distinguished Professor, and of other friends associated with him in life by the common ties of scientific brotherhood. It is proposed to erect a marble bust of the deceased, and to place it in the New College of the London Hospital.

PUBLIC BATHS AND WASHHOUSES.

This week's Number contains a statement which has been issued within the last few days by the Committee for Promoting the Establishment of Baths and Washhouses for the Labouring-classes, and gives very favourable proof of the high estimation in which these institutions are held by those for whom they have been built. From the Table it will be seen that the accounts are given from fourteen establishments—seven in the metropolis, and seven (out of many) in the country—conducted under, or in accordance with, certain Acts of Parliament obtained during the present reign: the earliest of these public baths having been opened about January, 1848, in Goulston-square, Whitechapel; the latest at Poplar on the 19th of July, 1852. Besides these Metropolitan establishments, there is the one in George-street, Euston-square, which is omitted in the present Report, since it is not conducted according to the Acts. Now, it appears that from the 1st of January, 1848, until the 31st of December, 1852, the aggregate amount of bathers and washers at the London baths alone has reached to upwards of *three millions;* and this large number will appear the more satisfactory when it is remembered, that it is in a great measure made up by the steady increase of bathers which has taken place during the last three years,—the Report for the year 1852 even showing an increase over the year 1848 of nearly 950,000.

It must be a matter of great pride and pleasure to the Committee, that, after eight years of continuous exertion, they can now leave the baths and washhouses to their own individual care and support, considering, as these gentlemen very justly observe, that these establishments are now safely enrolled among our national institutions. We sincerely trust that this prediction may, as we believe it will, prove true; for there is certainly no single circumstance which will conduce more to the general happiness and health of the poor than cleanliness.

MEMORIAL
FROM WAKEFIELD AND ITS VICINITY TO THE ROYAL COLLEGE OF SURGEONS.

Wakefield, Feb. 19, 1853.

TO THE PRESIDENT AND COUNCIL OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

Gentlemen,—We the undersigned Members of the College have seen with great regret, that it is your intention to confer the Degree of Licentiate in Midwifery on persons who have not previously taken any degree either in medicine or surgery, nor have gone through a course of study equal to that required from candidates for the membership of the College, and we feel it incumbent upon us to protest against a measure which we cannot but regard as both unnecessary and mischievous.

The present Members of the College, and the Licentiates of the Apothecaries' Hall, are amply sufficient to supply the obstetric knowledge and skill required by those classes of the community among whom the Licentiates in Midwifery would probably practise.

By adding a new section to the already too numerous branches of the Profession, the difficulty of future legislation on medical subjects would be greatly increased.

The Members of the College will be exposed to the competition of a class of practitioners who have gone through a course of study inferior to that required from themselves; for it is absurd to suppose that the Licentiates in Midwifery will confine themselves to the practice of that branch of the Profession alone. And this competition will be the more injurious, as it will spring from a class of persons who will have some pretence for holding themselves out to the world as qualified practitioners, and who will be so regarded by large classes of the community who know little, and care less, about the distinction of Fellow, Member, or Licentiate, but who will be apt to regard all who have passed an examination at one and the same place as being on an equal footing; and it is little likely that those who take the licence in midwifery without having obtained the diploma of membership, will be unwilling to encourage the delusion, and to act upon it to our disadvantage.

We also fear that the introduction of an inferior class of practitioners into the College will have a tendency to lower the whole body in public estimation; for if, as is very possible, the tone of professional morality of the proposed Licentiates in Midwifery should be lower than that of the Members of the College, any discredit attaching to that circumstance would, in the eye of the public, be to some extent shared by us.

We therefore most earnestly, but respectfully, beg that you will again take this subject into consideration.

We have the honour to be, Gentlemen,

Your obedient servants,

Name.	Address.	Date of Diploma.
Benjamin Walker....	Westgate End, Wakefield.	June 7, 1805.
Samuel Marshall	Westgate, Wakefield.	Nov. 6, 1806.
Ebenezer Walker, sen.	Wakefield.	April 17, 1807.
Joseph Bennett, sen...	Market-street, Wakefield.	Aug. 2, 1816.
Charles Bailey	Redear.	May —, 1816.
William Statter.....	South Parade, Wakefield.	Feb. 3, 1829.
Sam. Holdsworth, M.D.	Grove House, Wakefield.	July 3, 1835.
T. G. Wright, M.D. ..	South Parade, Wakefield.	— —, 1831.
Benjamin Kemp	Westgate End, Wakefield.	Dec. 29, 1843.
Henry Dunn	Market-street, Wakefield.	Feb. 20, 1824.
William R. Milner ..	Prison, Wakefield.	Feb. 23, 1838.
John Burrell	Westgate, Wakefield.	Aug. 23, 1839.
Josh. Bennett, jun. ..	Market street, Wakefield.	March 3, 1848.
William Wood	Cheapside, Wakefield.	July 25, 1842.
Samuel Secker	Kirkgate, Wakefield.	March 12, 1841
Thomas Walker	Northgate.	July 14, 1848.
Francis Horsfall	The Grove, Wakefield.	June 20, 1845.
William Saville.....	Kirkgate, Wakefield.	Nov. 5, 1852.
Henry Horsfall.....	Kirkgate, Wakefield.	Dec. 23, 1842.
Ebenezer Walker, jun.	Drury-lane, Wakefield.	Oct. 27, 1843.
William W. Kemp ..	Horbury.	Aug. 16, 1844.

MEMOIR OF THE LATE MR. CLEOBUREY, OF OXFORD.

Mr. William Cleoburey, whose death took place at Oxford on the 7th inst., in his sixty-first year, had held the appointment of Surgeon to the Radcliffe Infirmary for about thirty-eight years, having been elected to it in 1815. He held also the honorary offices of Consulting Surgeon to the County and Warneford Asylums. He was apprenticed to Mr. Short, of Bedford, one of the surgeons to the infirmary there, and completed his studies at St. Bartholomew's Hospital, where he was a dresser under Sir Charles Blicke. He passed the College of Surgeons in 1813, and, having settled at Oxford, was soon afterwards elected Surgeon to the Radcliffe Infirmary, an institution to which he ever remained much attached, and the duties of which he discharged with most exemplary uprightness till within a few weeks of his death. On the grant of the new Charter to the College of Surgeons, in 1843, his position and reputation obtained for him a place in the first list of the new class of Fellows created under the provisions of that Charter.

Mr. Cleoburey never obtained extensive practice as a consulting surgeon. Possessed of competent private means, his retired habits and not robust health did not qualify him for the active competition necessary to insure success in that struggle. But he was far from being inattentive to the wants and requirements of the Profession. He read with a critical eye all the approved publications of the day, and treasured well in his memory all the best modern discoveries deducible from pathology. To the public he was favourably known as an oculist, and during his whole career he maintained deservedly a high reputation in all diseases of the eye, monopolising the ophthalmic practice of Oxford and the neighbouring counties. His operations on the eye, whatever their nature, were beautifully and skilfully executed, and were remarkably successful in their results. A "good diagnosis," he used to observe, was the most important element of success. Among his professional brethren, especially his colleagues, his reputation was not so limited. He was known to be a good anatomist, retaining minute anatomical knowledge with accuracy. His diagnosis was justly appreciated. It was cautiously formed; and of its general correctness it is sufficient to say, that his colleagues have not recorded a case where his opinion was shown to be erroneous. During thirty-five years, few, if any, operations were performed in the infirmary without his presence and assistance. Residing near the house, he was generally selected by his colleagues to supply their places when absent; and at whatever inconvenient hour an additional head or an additional hand was required, everybody looked to Mr. Cleoburey to supply it.

As an officer of a large charitable institution, dispensing its benefits to numerous poor, his conduct to the patients was kind and benevolent in the extreme; no harsh or unkind word ever escaped from his lips; and perhaps few hospital surgeons have descended to the grave having made a more honourable use of their talents and experience, and having done more positive good in their day, than Mr. Cleoburey.

PARLIAMENTARY INTELLIGENCE.

HOUSE OF COMMONS.—Monday, Feb. 21.

THE NAVAL ASSISTANT-SURGEONS.

In Committee of Supply, on the question, that the sum of 137,245*l.* be granted for the Admiralty Office,

Colonel Boldero reminded the Committee, that in 1850 he advocated the cause of the assistant-surgeons, and carried a resolution, which declared that the accommodation provided for them was inadequate and insufficient for securing the full benefit of their professional services. He was anxious to know what were the views of the present Board of Admiralty? The Lords of the Admiralty issued a memorandum on the 17th July, 1850, which was not calculated to give effect to the resolution of the House. The memorandum was, indeed, extremely offensive to that class of officers, and was considered an insult to the whole Medical Profession. According to that memorandum they were to be allowed cabins only when the space on board would admit of it. This last exception would leave the whole matter to the Board of Admiralty, and defeat the resolution which the House had passed in 1850. He had received returns from the Mediterranean station, and out of twelve assistant-surgeons who had passed through all the ranks of their Profession only five had received cabins; and only two had those little advantages which were enjoyed by the other officers in the ward-room. This was the manner in which the Admiralty carried out the resolution of the House passed in 1850. The result of this was, that the *élite* of the candidates at the London, Edinburgh, Glasgow, and other colleges shunned the Navy. In the event of a sudden war where would the Government obtain assistant-surgeons when such was their treatment? How could Government expect candidates for medical situations in the Navy when for three years they must remain in the cockpit, where study was next to impossible? What was the effect of such a system? Mr. Guthrie, in his lectures, said that medical officers could not be found qualified for the Navy, and that the system adopted by the Admiralty, instead of raising the value of the service, deteriorated it by employing persons of an inferior description. Was it desirable that they should continue a system which disgusted young men, and deterred them from entering into the naval service? It was even more necessary that there should be well qualified surgeons in the Navy than in the army. The sailors depended entirely upon the assistance of medical men, and, if those men were such surgeons as were employed in 1809, what confidence could the service have in them?

Admiral Berkeley would just ask the hon. and gallant officer how he would like, as the colonel of a regiment, to have the discipline of his regiment and the internal arrangements of his regiment regulated by a naval officer. (Hear, hear.) That was really the question. In direct contradiction to what the hon. and gallant officer had said, he (Admiral Berkeley) affirmed that very great improvements had taken place on board ship, and that great additional accommodation had been afforded to the medical officers attached to the naval service. The hon. and gallant officer had spoken as if these men were stuck in the cockpit. It was no such thing. He maintained that the Board of Admiralty had done all that was possible to carry into effect the resolution of April, 1850, and expressed his regret to find the hon. and gallant officer doing so much to create dissatisfaction in the Navy by his efforts to place the assistant-surgeons above their superior officers—the mates. The fact was, that the assistant-surgeons were, on the whole, very well off; and, so far from there being any want of candidates, no fewer than fifty-four had entered within the last few months.

Mr. Hume said, that the question was, whether the Navy ought not to obtain as able and efficient medical assistance as the army. For his own part, he could see no reason why both officers and men in the Navy should not receive the best medical talent that was to be had, which, however, was impossible, so long as the assistant-surgeons were treated as at present.

Mr. Osborne said, that the resolution of April, 1850, to which the hon. and gallant officer had referred, was carried by surprise in a thin house of 88 Members. He was sorry to say that the hon. Member for Montrose had taken a different line of argument on the present from what he had used on the previous occasion. On the former occasion the hon. Member admitted that the matter was one of detail, which should be left to be settled by the Board of Admiralty [Mr. Hume: "It has been too long left to the Board."] The truth was, it was a question of space, with which naval men alone were competent to deal. He contended, that for many years past there had been no class of men whose comforts had been more attended to than those of the assistant-surgeons. In 1840, a commission, composed of the Duke of Wellington, the Duke of Richmond, Sir George Cockburn, etc., reported that there were practical difficulties in the way of allowing the assistant-surgeons in all cases to mess in the ward-room; but that this was less essential, as they had ascertained that the accommodation afforded them of late years was so improved as to render it unnecessary for them to make any recommendation in that respect. The hon. and gallant officer had characterised the memorandum of July, 1850, as an insult to the Medical Profession. The recommendation of that memorandum was, that the assistant-surgeons should be allowed cabins where space would admit of them. He (Mr. Osborne) confessed

he could not see where there was any insult in that. (Hear.) He found, from a return furnished in May, 1851, that the recommendation of the Board had been carried out in all cases, except where it had been found utterly impossible; and what more would the hon. and gallant officer have? (Hear.)

Colonel Boldero assured the hon. and gallant admiral (Berkeley) that nothing was further from his intention than to create dissatisfaction in the Navy, and that he had taken up the question solely as a matter of public duty. (Hear, hear.)

Captain Scobell said he was astonished how the Admiralty had found it practicable to find cabins for so many. Cabins were impediments to clearing for action, and the more there were the greater would be the difficulty. There were other classes—such as the mates, who would be our future admirals—struggling upwards, who had claims for cabins as well as the assistant-surgeons, who were, no doubt, a very respectable class of men; but it must be considered that a ship was like that House—if all were to have seats, there would be no room for them.

A vote of 26,000*l.* for medicines and medical stores was agreed to.

PROVINCIAL CORRESPONDENCE.

SCOTLAND.

MEDICAL GOSSIP IN THE NORTH.

[From our Edinburgh Correspondent.]

Edinburgh, Feb. 17, 1853.

The medical life in every place has its esoteric as well as its exoteric character. As regards Edinburgh, the latter may be easily gathered from the journals, and it is to the former that your Correspondent must chiefly direct attention.

We have long arrears to make good, and on this occasion must be rather retrospective.

Of medical squabbles we have had our usual doses, not homœopathic certainly. In this good city, we do not leave this important duty to be performed by the younger, more fiery, and less occupied members of the Profession, but, with a proper regard to the dignity and polish of our high-toned calling, entrust it to the magnates, who very kindly never decline the duty.

In this department, surgery has, as usual, carried off the laurels; a match having come off between the Professor of Systematic and the Professor of Clinical Surgery, under the following circumstances:—

It has long been the custom in our Infirmary, that each surgeon, when elected, should serve a certain term of years, just as assistant and then as principal surgeon. The advantage of this arrangement is, that the rising men of our Profession have an opportunity of showing their talents; the disadvantage is, that individuals, after their term of active duty is over, sink into comparative obscurity, and too often degenerate into General Practitioners. The position of Clinical Professor, along with his peculiar surgical talents and his own manifest inclination, have preserved Mr. Syme from this fate.

It is impossible that clinical surgery can be taught without *materiel*, and, accordingly, when appointed to that chair, Mr. Syme gave up a private hospital, which he, with the assistance of his friends, maintained at considerable expense, on the understanding that he was to have wards permanently in the General Hospital. This, of course, has served to keep him prominently before the public as an operating surgeon.

Some months ago, the Professor of Systematic Surgery (who, though no M.D., is anything but a "Pure") put in a claim for the same privilege. Systematic Surgery, of course, could be taught without it; but then the personal advantage was worth an effort. The influence he possesses, clerical and lay, was then set in motion, and, eventually, the managers of the hospital determined, by a small majority, to make the trial for one year. Loud outcries were, of course, raised by all interested parties. The College of Surgeons memorialized against it, but the managers maintained a dignified reserve, and abode by their first resolution. And thus ended the first fight.

No. 2 of the series was of a more private nature, and the performers, on this occasion, were also two Professors, Goodsir and Syme. It seems that certain game-laws exist in the University, which are duly administered by the magistrates as patrons.

Professor Bennet brought Professor Goodsir to the bar, accusing him of poaching on his preserves. The former is Professor of Physiology (though he teaches pathology); the latter of Anatomy (though it would appear he teaches physiology).

The public boards were wont to require two courses of anatomy for those who proposed to appear for examination. The Professor of Physiology obtained a change, leave being granted to the student to take one course of anatomy and one of physiology. Mr. Goodsir met this by granting certificates to his students, of having attended physiology, and against this Dr. Bennet has complained *adhuc sub judice lis est.*

A similar spirit has entered the usually quiet Medico-Chirurgical Society.

Dr. Bennet has put forward a claim to have been the first to show a rational way of treating pulmonary pithisis. He rests this on the somewhat slippery fact of his having been the first to introduce cod-liver oil as a remedial agent into Scotland. Of the truth of this there can be no doubt, but then there was little merit attaching to Dr. Bennet in this respect. He happened to have leisure for a continental tour, and found duridg it cod-liver oil largely employed in all scrofulous cases, and numerous attestations to its value in the medical literature of Germany and the low countries.

This he investigated with his accustomed zeal and perseverance, and the result was, the publication of his treatise on the subject. To this work Sheridan's remark particulaly applies: It contains much that is new, and much that is true; but unfortunately what is true is not new, and what is new is not true. Still, on the strength of this, he founds his claim to having first successfully treated phthisis. Two opponents have opposed him in this. Dr. Christison has shown that the doctrine of the non-inflammatory character of phthisis was known and taught in Edinburgh for years before Dr. Bennet was heard of, and Dr. Robert Hamilton has appealed with much truth to the treatment of the disease by tonics and good feeding, so successfully carried out half a century ago by the Rev. Dr. Stewart, Minister of Erskine. Two meetings of the Society have been amusingly occupied by this display of vanity on the part of the Professor of Physiology, and a third is promised. I shall probably recur soon to the proceedings of the Medico-Chirurgical Society.

The Association Bill for Medical Reform, which I see has begun to agitate you, has caused little excitement here. The Colleges of Physicians and Surgeons have, it is believed, taken it into consideration, and suggested some alteration. It is a strong proof of how little interest even the Fellows of these Colleges take in the matter, that the result of their proceedings has never been gossipped out of doors. It is, however, generally understood that the harmony which was recently patched up between these Edinburgh Colleges and the Faculty of Physicians and Surgeons of Glasgow has come to an abrupt termination,—that harmony being based on mutual concessions; but the gentlemen in Glasgow, with the true spirit of traffickers, showed a desire to take all they could get and give nothing. So at least it is said.

A quarterly medical journal is to be started in Glasgow. This has been tried before and failed. It is doubtful if Glasgow medicine or surgery stand sufficiently high to create a demand for it beyond "Lanark and its dependencies," and it is not likely that in that district alone sufficient encouragement will be afforded.

GENERAL CORRESPONDENCE.

THE MIDWIFERY EXAMINATION AT THE COLLEGE OF SURGEONS.

[To the Editor of the Medical Times and Gazette.]

Sir,—A letter, which I have only just seen, signed "Obstetricus," appeared in the *Lancet* of January 29, apparently written with the intention of explaining the obligation by which the Royal College of Surgeons, in compliance with the provisions of their new Charter, felt themselves clogged when they proposed to institute a new order of practitioners, under the title of "Licentiates in Midwifery,"—an announcement that has been received with so much dissatisfaction by the members of the Profession in general. As this letter seems to possess somewhat of the stamp of authority, we may conclude that its publication was sanctioned by the College; and, if so, it is deserving the attentive consideration of the Profession.

In it we are told that, by some oversight or mismanagement in framing that clause of the Charter that relates to this particular branch of medicine, the College will be compelled to admit all

persons, female as well as male, that may apply, to an examination "on Midwifery;" that to obviate the difficulty into which they have been drawn, and to prevent the possibility of females seeking their diploma, they require that every candidate should have gone through a course of anatomical, medical, and surgical study; and that they have resolved to charge a higher fee for this diploma than for their ordinary surgical one, with the view of inducing all who offer themselves for the College honours rather to undergo the general than the special examination, which latter, while it will cost them more money, will only admit them to a lower grade in rank.

I am glad that this explanation has been put forward, because, as I never doubted the wish of the College to uphold the respectability of its members, and, through them, the dignity of the Profession, I was at a loss, with a great many others, to understand the reason for the measure contemplated. Had the College condescended to point out the dilemma into which they had been drawn, even in an unofficial manner, much ill-feeling might have been prevented, and the announcement would have been received by their members as an act of graceful courtesy.

The letter alluded to proceeds: "As to combining the obstetric with the surgical examination, many difficulties are met with. Two, perhaps, will suffice. The Council is composed of *pure* surgeons, [*sic*,] who do not profess to have any acquaintance with the subject; and those who intend to practise surgery alone might justly object to be examined on those points."

"Obstetricus" has here mooted the chief question at issue, and his argument is far from conclusive. The examining body within the College itself ought to possess sufficient knowledge of the science, if not of the practice, of obstetrics, to institute an examination on the subject; and, if it were so, this would do away with the necessity of an extra-examining board, as well as the necessity of the payment of an extra fee. It would also prevent the unjust and impolitic separation of the obstetric from the other branches of medicine and surgery, and it would give assurance to the public, that every member of the Royal College of Surgeons was equally well informed upon this as upon all other surgical subjects.

What is there in the constitution of the Examining Board of the Royal College of Surgeons so different from similar boards in the various universities, as to oblige them, as individuals, to repudiate "midwifery?" And why should their members, even though they did not intend to practise that department, object to be examined in it, any more than those members of the University of London and of other places, who propose to practise pure physic?

If the College had attended to the appeals, arguments, and remonstrances, addressed to them twenty-four years ago by the Obstetric Society, and had admitted into their council practitioners of obstetric surgery, they would long before this time have been in a position to undertake the requisite examinations themselves. That Society, to which I acted as honorary secretary, was composed of all the teachers of obstetric medicine in London, past and present, with the exception of two, besides some other members; was presided over by Sir Charles Clarke; and was established for the purpose of inducing the three corporate medical bodies to recognise "midwifery," as a compulsory part of general medical study, and to examine on the subject. It remained in active operation for five years, and during this period many communications passed between the Society and the Home Office, as well as between it and the three corporate bodies. Mainly through its representations the College of Physicians was induced to throw the Fellowship open to practitioners of obstetric medicine; and an obligatory attendance on two courses of "midwifery" was added to the curriculum both of the College of Surgeons and of the Apothecaries' Society. Since, then, the College of Surgeons require all their alumni to attend courses of lectures on "midwifery," on what principle can they refuse to examine them all on the same branch? and on what principle, moreover, can they refuse to frame their own examining board in such a manner, that the examinations may be conducted by themselves, and not delegated to a separate party? The terms of their charter need be no obstacle; for, if I read it rightly, it empowers them to constitute a board of not less than three persons to examine on midwifery; but it does not compel them to do so. I am, &c.

7, Portman-square. FRANCIS H. RAMSBOTHAM.

SULPHURIC ACID IN DIARRHŒA.

[To the Editor of the Medical Times and Gazette.]

SIR,—I should not have presumed to address you on this subject, if the letter from Dr. C., in your Journal of the 12th inst., like its prototypes, did not manifestly treat it more in an empirical than a rational manner. The welfare of the public, if not the dignity of the Profession, will be more securely promoted, if we solve the question on the authority of a medical officer whom your correspondents appear to have entirely forgotten.

Dr. W. E. E. Conwell, of the Madras establishment, in his work on the "Liver," (London, 1835,) puts the question in a clearer light than I have ever seen it since, by stating, under "Excessive Secretion of Bile," "which may terminate in cholera, collapse, and death, or may gradually subside," that "the danger arises not from the increase of secretion, but from the presence of that secretion in the intestinal tube; hence, the first object is to destroy the acrid properties of the bile in the duodenum or in the stomach, if it should enter that viscus. A dilute solution of sulphuric acid will effect this object. A dilute form of nitrous or nitro-muriatic acid will, perhaps, act most efficaciously; and a small quantity of tinctura opii added to the solution will allay irritation of the gastro-intestinal tube." (P. 109.)

Any comment, I believe, would be superfluous. The cause of the diarrhœa will indicate the remedy. I am, &c.

Ravensborough. J. W. K. PAULOVICH.

REPORTS OF SOCIETIES.

MEDICAL SOCIETY OF LONDON.

Mr. BISHOP, F.R.S., President, in the Chair.

MALIGNANT TUMOUR OF THE RIGHT OVARY.

Dr. Crisp exhibited a large malignant tumour of the right ovary. The particulars of the case were supplied by Mr. Skegg, of St. Martin's-lane, with whom Dr. Crisp had several times seen the patient. The history was as follows: C. E., aged 37, unmarried, of spare habit, fair complexion, and rather tall in stature, generally enjoying good health, and menstruating regularly, in June, 1851, fell down stairs, hurting her back much. She felt the effects of the fall for several weeks, complaining of pain in the loins and sacrum, but did not consider it of sufficient consequence to seek medical aid. In October of the same year she consulted me, in consequence of having missed two menstrual periods. She at this time related the fact of the fall in June. Her general health was good, but she admitted having obscure, but slight and occasional pains in the pelvic region. Having examined the mammæ, purgatives and the pil. ferri co. were prescribed. Menstruation not having returned in November, an examination per vaginam was submitted to. The result was the discovery of a tumour, extending from the pubes to near the umbilicus, in shape and size much like a pregnant uterus, but wanting in softness, having a firm, solid, and almost cartilaginous feel. This examination satisfied me she was not pregnant. Leeches, mercury to ptyalism, iodine, and pressure, were the means used to arrest its growth, notwithstanding which the tumour rapidly increased, and in June, 1852, filled the abdomen, extending to the epigastrium. At this time the tumour had a firm, almost cartilaginous feel; nowhere could anything like fluctuation be detected; the abdomen enormously distended, its veins, as well as the veins on the front of the thorax, amazingly enlarged, with œdema of the lower extremities. The urine and fæces passed without difficulty; the former scanty in quantity, the latter requiring the occasional use of purgatives. Her principal sufferings at this period arose from the mechanical pressure of the tumour, and severe dyspnœa at all times, with excessive œdema of the lower extremities. About July she became an in-patient of one of the metropolitan hospitals, where she remained about three weeks; on leaving, she was much in the same condition as when she entered. About the end of August, on examination, the summit of the tumour could be clearly defined, and the space formerly filled by the tumour was now occupied by fluid. In November the tumour had considerably diminished. On the left side it extended from the ribs, then passing an inch below the umbilicus, directly across to the right iliac region, still retaining its cartilaginous feel. The cavity of the abdomen, unoccupied by the tumour, was enormously distended with fluid: the respiration exceedingly embarrassed; she was unable to lie down, and frequently threatened with asphyxia. I proposed to her the operation of paracentesis as the only means of prolonging her existence. This was readily assented to, and on the 27th of November, in the presence of Dr. Crisp and Mr. Hargood, the abdomen was punctured with a large trocar and canula an inch above the umbilicus, in the median line; twenty-two pints of coffee coloured fluid escaped in an unintermitting stream. The

relief to the patient was very great; she was enabled to lie down and get a sound night's rest; the œdema rapidly subsided. On the fourth day from the operation, the breathing became much embarrassed with a frequent dry cough. On examining the chest, the respiratory murmur was normal on the left side, but altogether absent on the right; dropsical effusion in the right pleura was suspected. Blisters, iodide of mercury, and digitalis, were administered. In a fortnight, the functions of the lung were completely restored, the respiratory murmur being clear throughout. She now became able to assist in light household duties, and continued without any grave suffering until the middle of January, 1853. The tumour remained without change, free from pain; the dropsical symptoms gradually increased, and about the middle of January the breathing became again embarrassed, accompanied with a constant cough, the abdominal effusion rapidly increasing, having, at this time, nearly attained the quantity at the time of operation; there were œdema of the lower extremities, scanty urine, inability to lie down, the right side of the thorax being manifestly larger than the left, the respiratory sounds extinct, and hydrothorax evident on right side. The same means were again employed as in December, but without avail. The respiration became distressingly difficult, until she expired on the evening of the 16th February. During the whole period of her illness, she did not complain of pain in the abdomen or thorax. The body was examined twenty hours after death, and the subjoined report was made by Dr. Crisp, who with myself and others were present at the autopsy. The body was emaciated; the abdomen enormously enlarged, and of greater magnitude than that of a woman at the full period of utero-gestation. A hard, irregularly shaped tumour could be felt at the lower part of the abdomen, while fluctuation was perceptible above this. About six quarts of greenish coloured fluid was present in the peritoneal cavity; this fluid contained numerous large flakes of a brownish lymph-like deposit. On its removal, nearly the whole of the tumour was brought into view: it occupied the entire cavity of the abdomen, extending to the epigastrium. The peritoneal covering of the intestines was much congested; the liver presented a nutmeg-like appearance, its edges rounded, but the general size was not increased; the right pleural cavity appeared much enlarged. It contained about ten pints of serum; the lung was compressed to a small size: and weighed about 6 oz. The costal pleura was covered with a thin deposit of lymph, not of very recent formation. The left lung healthy, but rather below its usual magnitude, owing to the encroachment of the right pleura. The heart was normal.

Examination of the Tumour.—The mass consisted of a large cyst, which held about a gallon of fluid, and of several smaller ones, varying in size from a pea to a hen's egg. The contents of the large cyst resembled beer-grounds in appearance; the sides were ragged, and large venous trunks, with very thin coats, were abundantly distributed to the parietes of the cyst. The contents of the other cysts differed much in consistence, the smaller being filled with a pultaceous pappy matter, which immediately coagulated upon the application of heat or nitric acid, whilst many of the larger presented the cerebriform appearance of fungous disease (*fungus hæmatodes.*) The nodules of brain-like matter were surrounded with venous trunks, which in some places presented a stellate appearance. The uterus was of natural size, and of normal structure; the Fallopian tubes and left ovary were healthy, but the right ovary appeared to have degenerated into the mass above described. The attachments of this tumour were slight, the broad ligament on the left side, and the ovary on the right, forming the only connexions with the body. The uterine arteries were thin, and their caliber not much increased; the veins were very large and tortuous when injected with size and white paint. The tumour, when the contents of the large cyst were evacuated, weighed 10 lbs.; before the evacuation about 20 lbs.

Microscopic Examination.—The pappy matter in the smaller cysts was composed chiefly of round cells without nuclei, and about half the size of blood corpuscles: a few bodies, resembling pus corpuscles, were also present. The brain-like substance of the larger nodules appeared to be composed of numerous irregularly shaped cells, with transparent walls, and free from nuclei. Other cells of larger size, which appeared to contain three or four nuclei were also seen, but none of them were of a caudate form. Besides these, blood-corpuscles, pus corpuscles, and granules were present. Acetic acid rendered the cell-walls first mentioned more transparent. The blood, especially that of the veins in the tumour, contained many of the round bodies described above. On the posterior part of the tumour were several small, hydatid-like cysts, of a pyramidal shape, about the size of a large nut. On magnifying one of these about twenty diameters, the parietes were seen covered with veins running parallel with each other, and communicating by intervening loops. The cyst contained serum, and five or six round bodies of a tuberculous appearance, which were unconnected with the walls of the cyst.

Dr. Crisp remarked, that he did not remember a case on record where malignant growth had been so rapid as in this instance, for, as far as could be ascertained, the tumour was formed in seventeen or eighteen months. It afforded a curious contrast to an ovarian tumour, weighing 40lbs. or 50lbs., which he exhibited to the Society many years since. In the latter case, the attachment of the tumour to the ovary was not larger than the end of the finger. The tumour was of many years growth, and, unlike the present specimen, was composed chiefly of fibrous cysts filled with a thick gelatinous fluid.

Mr. Borlase Childs exhibited a

LARGE BILIARY CONCRETION,

with the following account of the case:—Mrs. W., aged 36, a person of bilious temperament, in July 1850, about a fortnight after her confinement, was seized with a severe pain in the right side. This was combated with castor oil and other aperients, taken consecutively for about twelve or fourteen hours, without the desired effect. A blister was subsequently applied over the region of the liver, which relieved the pain, but left a feeling of fulness and obstruction about that region. In about a week, a painful tumefaction appeared below the ribs of the right side, for which leeches and poultices were applied with the effect of removing the swelling, but the pain remained, which now extended to the right shoulder, and became much aggravated by inattention to diet or bodily exertion. In the spring of the subsequent year, she was frequently seized with fits of shivering, and, to use her own expression, "her side felt as if it would burst, and as if it were drawn up into a knot." In the latter part of last year, these symptoms had considerably increased, and on the morning of the 25th of December, she was seized with a violent pain in the bowels, attended with vomiting, which continued for four-and-twenty hours. The pain in the side continued, and from a dull aching became sharp and lancinating. About 6 p.m, having a call to evacuate the bowels, the concretion passed, accompanied with considerable hæmorrhage. I learn, that during no period of her illness had she been jaundiced, nor was there any difficulty in managing the state of her bowels, the evacuations being of a natural colour and consistence.

PERITONITIS FROM PERFORATION.

Dr. Winn exhibited a well-marked specimen of perforating gastric ulcer. The subject of the case was a young married woman, aged 28, who had, for a long time past, laboured under symptoms of indigestion and cardialgia; she had also, at a distant period, suffered from an attack of hæmatemesis. She enjoyed good health before marriage, but her sister had died of phthisis. A few months before death Dr. Winn had recommended her to wean her child, and to take some remedies for the stomach affection. She refused to wean her infant, and he lost sight of her until the 15th inst., when he was summoned to see her at midnight. Dr. Winn found her lying on the floor in a state of collapse, and suffering from excruciating pains in the abdomen, and other symptoms of acute peritonitis. Her relatives informed him that she had visited some friends in the country on the preceding day, and that she had eaten a hearty supper, composed of cheese, celery, ale, etc. She went to bed apparently well, but was startled out of sleep an hour afterwards by an agonising pain in the stomach. Her screams were piercing, and so loud that they alarmed the people in the street. It was evidently a hopeless case. Dr. Winn prescribed opiates and fomentations, but they afforded no relief, and she died at four o'clock. On opening the abdomen, a large quantity of turbid and fetid fluid escaped, the source of which was soon discovered. In front of the stomach, and close to the centre of the lesser curvature, was a small, circular, and well-defined ulcer. The aperture presented a bevelled appearance, owing to the mucous membrane having been destroyed to a greater extent than the other coats of the stomach. The interior opening was about the size of a fourpenny-piece; the external aperture not more than the eighth of an inch in diameter. The mucous and other membranes in the neighbourhood of the ulcer were thickened, and the villi presented a bright scarlet appearance. The other portions of the stomach were apparently healthy. The small intestines were vividly injected. Dr. Winn thought it probable that the ulcer had existed for a long period, but that mechanical distension of the stomach from undigested food had possibly ruptured the peritoneal covering of the ulcer. He also considered it of interest to notice, in connexion with the *post-mortem* appearances, the long-continued dyspepsia, and the fact of the lesion occurring, as it generally does, at the lesser curvature of the stomach.

Some conversation ensued between the Fellows relative to this specimen, and with reference to the symptoms which indicated the

existence of ulceration of the stomach, and subsequently of perforation of its wall. After the subject had dropped, the President called on Mr. Henry Smith to read his paper, which will be published in this Journal in its entire form, so that it is unnecessary to give an abstract of it here.

The discussion on Mr. Smith's paper was commenced by Dr. Crisp, who quoted from a French medical journal an account of the number of operations practised by M. Guersent, of the Hôpital des Enfans Trouvés. That gentleman, according to the report, had performed tracheotomy more than thirty times with success, a circumstance which, in Dr. Crisp's opinion, argued strongly in favour of the operation.

Dr. Theophilus Thompson considered it desirable to abstain from all remarks on the medical treatment of croup, since the special subject proposed for discussion was the question, whether, in extreme cases of the disease, any hope could reasonably be entertained of averting death by tracheotomy. The arguments usually advanced in favour of the operation appeared to him inconclusive. The albumino-fibrous deposit often occurred in irregular isolated patches, not removable by operation; but even if sufficiently coherent to be removable in this way, it might subsequently be reproduced. In a case treated by the late Mr. Chevalier, a tubular cast of the windpipe was brought up through an opening made by operation; but when, seven hours afterwards, the child died, it was found that in that short period of time another similar tube had been formed. Dr. Thompson mentioned, as an additional consideration unfavourable to the operation, that he could scarcely recollect a case of death from croup, under his own observation, in which he had failed to discover, on a *post-mortem* inspection, muco-purulent secretion in the bronchial tubes, consolidation of lungs, or other conditions sufficient to account for death, irrespective of the tracheal obstruction. The author of the paper had, however, described instances in which the evidences of disease were almost confined to the windpipe; and in one of the cases there seemed reason to think that, but for some accidental neglect, the operation might have proved successful. Such statements appeared to him a sufficient reason for dispassionately considering the question of operating whenever death seemed imminent in consequence of obstruction confined to the trachea. Dr. Thompson bore testimony to the value of the paper. To publish successful cases was no trial; but it required moral courage in a surgeon to publish accounts of operations apparently unsuccessful, however instructive; and Mr. Smith was entitled to much credit for the philosophical and ingenuous spirit which characterised his communication.

A Fellow asked Mr. Smith whether he was not accustomed to employ topical treatment before resorting to the operation, such as the application of a strong solution of nitrate of silver to the larynx?

Mr. Smith replied, that this part of the treatment, in the cases which he had related, did not fall into his hands. He was sent for when the patients were in danger of suffocation, for the express purpose of relieving them by an operative proceeding, if he considered it expedient to do so; he had, therefore, nothing to do in these particular instances with the treatment that preceded the operation.

Mr. Henry Lee fully concurred in the admiration expressed by Dr. Thompson for Mr. Smith's paper, although he could not entirely agree with some of the observations of the author. He considered that, in all cases of croup, it would be much better to apply stimulant lotions—a strong solution of nitrate of silver, for example—to the larynx, by which, in most cases, the disease might be checked, and the effusion of false membrane prevented, provided it had not extended down the trachea and into the bronchi; and, if such were the case, he thought any operation on the larynx or trachea would have little influence on the fate of the patient, because the disease would remain untouched below the opening which might have been made.

Mr. Gay thought that Mr. Henry Lee had mistaken the object of Mr. Smith's paper. The author, as far as he understood him, did not mean to assert that tracheotomy should supersede medical treatment in croup, but he raised the question whether the operation should be resorted to for the purpose of relieving impending suffocation in desperate cases of the disease. For his own part he thought the operation might, under such circumstances, be practised with great propriety, indeed, he would say, that it was the bounden duty of the surgeon to perform it, provided there was a reasonable prospect of prolonging the life of the patient by its adoption. The fatality so general among cases of croup requiring tracheotomy, was, he thought, not referable to the operation, but rather to the disease, which continued, in most instances, with unabated intensity after the operation. There were, however, many circumstances in the operation itself, as ordinarily performed, which could not fail to be prejudicial to its success; he would mention the admission of cold air by the artificial aperture, which must exercise an unfavourable influence on the inflamed mucous membrane. Now, it would not surely be difficult to heat the apartment in which the operation was performed, to such a degree as to enable all the air to acquire a temperature which would prevent it from acting prejudicially on the mucous membrane of the air passages; and he thought that this precaution ought always to be adopted in tracheotomy.

Dr. Willshire observed, that, although the subject brought forward by the author was purely surgical, yet croup itself was an affection that fell so entirely under the treatment of the physician, that he might be permitted to offer some observations respecting it. This disease, it was well known, assumed different aspects in different countries. In this country, and in northern regions generally, laryngeo-tracheitis prevailed as a primary affection, and diphtheritis was known only as a secondary disease, following the malignant exanthemata, such as small-pox and scarlatina. In more southerly districts, such as France, diphtheritis, on the contrary, was known as a primary disorder, while laryngeo-tracheitis was rarely seen, and he thought, that in comparing the results of tracheotomy in England and France, the forms of disease familiar to the practitioners of each nation should not be forgotten, for it was undoubtedly a far less serious thing to perform tracheotomy where the larynx and upper part of the trachea alone were affected than where the trachea and bronchi were coated with croupal effusion. He thought that in every case of croup it was necessary to ascertain by careful examination whether the bronchi and pulmonary tissue were free from disease; as, if not, it would be useless to operate. Again, it was of the highest importance to determine whether the operation should be performed early or late, for the patient would, undoubtedly, be in a much more favourable condition for recovery if it were adopted at an early period, than if it were deferred till all other remedies had failed, and the vital powers were at their lowest ebb. The French always performed it early in the disease. This was one of the causes of their success. He (Dr. Willshire) could not agree with Mr. Gay, that tracheotomy should be performed only when every other remedy had failed—when the patient was, in fact, moribund.

Mr. Gay interposed. He was far from saying that the operation should be deferred till the patient became moribund; his expression being, that it should not be resorted to unless there was imminent risk of suffocation, a condition which might certainly exist without the patient being moribund from exhaustion.

Dr. Willshire was ready to accept Mr. Gay's explanation. If the disease had gone so far as to threaten suffocation, notwithstanding the vigorous use of suitable treatment, there would be little hope of preserving the life of the patient by resorting to tracheotomy.

Mr. Dendy, who, we regret to say, was at times scarcely audible, observed, that he altogether concurred in the observations of his colleague, Dr. Willshire, and he was quite inclined to believe, that a strong solution of nitrate of silver would be found a most efficacious application in most cases of croup, and, if the disease was not counteracted by this and other treatment, he should scarcely expect it to be cured by the tardy performance of tracheotomy.

Dr. Druitt considered that it would be useless and injudicious to waste time by investigating the condition of the lungs when a patient might be on the point of suffocation; for, if the lungs were in a diseased state, he should consider the operation equally justifiable and equally necessary. If a patient were threatened with instant death, it was the duty of the surgeon to rescue him therefrom by whatever means were practicable, without looking to ulterior results; and if the performance of an operation would add a day, or even an hour, to the life of a patient, it was the duty of the surgeon not to shrink from practising it. Dr. Druitt related the particulars of a case in which tracheotomy had been unsuccessfully resorted to in his own practice.

Dr. Crisp offered some observations on the importance of performing tracheotomy early, as was done by Guersent and other French surgeons. He referred briefly to four cases which had been operated on by himself several years ago without success, and he considered that one of the chief causes of death in these instances was the lateness at which the operation was resorted to.

Dr. Murphy adverted to some cases of croup which had fallen under his own observation, and remarked that it was not unfrequent for the croupal membrane to be reproduced, as Cruveilheir had noticed, after the performance of tracheotomy.

Mr. Canton asked Mr. Smith whether he had ever introduced sponges soaked in a solution of nitrate of silver through the wound in the trachea, and endeavoured, by applying it to the mucous membrane, to counteract the recurrence of the croupal effusion. It had struck him that the proceeding was feasible, and likely to be beneficial.

Mr. Smith had never employed such a practice, and thought its application was altogether out of the question on children. He felt sincerely obliged to the Fellows for their flattering notice of his paper, and considered his labours amply recompensed by the discussion that had arisen, from which he had reaped much useful information. He had not referred to the medical treatment of croup in his remarks, because in the cases which he had detailed that department had not been committed to him; he had been simply called upon to relieve the patients by a surgical operation, if, in his opinion, it should be expedient to do so. He need, however, scarcely observe that he thought that tracheotomy ought not to be performed, unless other measures had failed, or unless so urgent a dyspnœa were present as to threaten immediate dissolution.

The Society then adjourned.

EPIDEMIOLOGICAL SOCIETY.

Dr. Babington, F.R.S., President, in the Chair.

Mr. Grainger read a paper, of which the following is an abstract:—

"ON THE INFLUENCE OF NOXIOUS EFFLUVIA ON THE ORIGIN AND PROPAGATION OF EPIDEMIC DISEASES.

"Although some diversity of opinion prevails among medical men in reference to epidemic disease, especially on the subject of contagion, all are agreed as to the noxious influence of over-crowding, defective ventilation, and other similar defects, prevalent in populous districts. It has occurred to me, that, without entering into the wide field connected with the nature and operation of noxious effluvia in general, it might not be altogether unprofitable if some elucidation of the facts which have fallen under my observation, both as regards the causation of, and exemption from, epidemic disease, were laid before the members of this Society. No one is more ready than myself to subscribe to the doctrine so well enunciated by my friend Dr. Carpenter in his valuable paper, "On the Predisposing Causes of Epidemics," that it is not simply the collection and tabulation of facts, nor even mere empirical generalization that will suffice; it is the principles and laws springing out of them which are demanded, if sanitary investigations are to be raised to the rank of a science. But fully recognising this as constituting the great aim and end of all these researches, and not forgetting the large amount of practical knowledge acquired of late years, it yet appears to me that there is abundant room and ample reason for elucidating evidence. Many points of prime importance to the public health as to matters of fact are still in much uncertainty. Doubts relating to agents assumed by sanitary inquirers to be deleterious still linger in the Profession, and by no means only among its least distinguished or influential members. The exact operation of animal effluvia, of a cesspool atmosphere, of excessive moisture,—conditions often combined in the miserable courts and alleys of our large towns,—is by no means fully ascertained. But the limits of this paper will not allow me even to allude to all the conditions affecting the health of large masses of the people. I therefore propose to direct attention to two only of the many deleterious agents prevalent in populous localities—viz., to human effluvia, and to the emanations generated by privies and cesspools. Extended inquiries of late years have abundantly proved that the same deleterious agents operate as predisposing causes in regard to the whole class of zymotic diseases; that what will develope the exciting cause of fever will also develope scarlatina, small-pox, diarrhœa, or cholera. So certain and notorious is this fact to those who practise among the poor, that before the outbreak of any epidemic, knowing where the predisposing causes are rife, they can foretel the precise localities where it will occur, nay, even name the alley, or point to the exact house that will suffer. Such considerations have long induced me to conclude, that in regard to zymotic affections, the predisposing are infinitely more important than what are called the immediate or exciting causes. In regard to low fever, for example, it is certain that its efficient cause, the *materies morbi*, is never absent from London and other large towns; and yet it is rarely, many would say never, developed, unless there be superadded to it some predisposing cause. So true is this, that we not only daily see in the metropolis and elsewhere hundreds and thousands of persons living in the front streets exempt from typhoid fever, while the inhabitants of the wretched courts behind are scarcely ever free from it, but if by chance a given number of persons are planted in the very centre of an epidemic district, but freed from the recognised predisposing causes of zymotic affections, they also, as a rule, will still escape.

"ON THE INFLUENCE OF HUMAN EFFLUVIA.

"According to my observation, the most injurious of all the causes operating on the diffusion of epidemic diseases, are the effluvia proceeding from the human body, particularly from the lungs and skin. The special deleterious agent consists of the effete, and, as it has been proved experimentally, highly putrescent organic matter, mingled with the expired air. That it is, when re-introduced into the living body, highly injurious, might be inferred from the very fact of the careful provision made by nature for its incessant elimination from the system. That it is small in amount is no objection to the intensity of its action; for, to the physiologist, it is well known that a minute quantity of a powerful agent—the putrid matter introduced on the point of a needle in the inspection of a dead body, a single drop of concentrated prussic acid placed in the mouth of an animal, is sufficient to destroy life. It is in overcrowded bedrooms, in unventilated schools, workhouse dormitories, etc., that this effete matter taints the air, and, entering the blood, poisons the system. Although there is a great diminution in the amount of carbonic acid in the air evolved in the lungs, still the evil, quoad the development of fever, scarlatina, cholera, and so forth, depends on the organic, not the chemical, products of respiration." The learned author referred to some experiments proving the truth of this assertion. He then continued:—"It is, however, familiar to all practitioners, that human effluvia specially exhibit their poisonous influence when either multitudes of human beings are crowded together, or where a smaller number are placed in confined and unventilated sleeping places. Many instances of the influence thus excited on all kinds of epidemic disease have come under my notice, but only a few illustrative examples can here be adduced. The following case illustrates the effect of overcrowding in respect to cholera. During the epidemic of 1849, the inmates of a reformatory establishment for young women suffered intensely from the pestilence, 40 out of a total of 96 being attacked, and 15, or rather more than 15 per cent., falling victims to the disease. Now, these poor sufferers were previously in perfect health; they were well fed, well clothed, and carefully tended; but the dormitories were low and much crowded; the windows, for the sake of seclusion, were partly closed up, thus greatly interfering with the ventilation. After a careful investigation, I could detect no other cause than this for the sudden outbreak occurring at a period when there was little cholera in the neighbourhood. As regards the influence of overcrowding in the development of low fever, I may appeal to the experience of every medical practitioner whose duties call him much among the poor. It matters not whether we speak of the closely-packed common lodging-house, of rows of houses built back to back, of the small, unventilated, and often single sleeping apartment of the mechanic, or of the ill-built cottages in rural districts, with their one bedroom, overhanging thatch, and small lattice; wherever, either from the presence of numbers, or the absence of ventilation, you have the fetid sickening air generated by human effluvia, there assuredly you will find fever. Although observed especially among the poor, fever, as it occurs in this country, is not especially dependent on poverty and destitution. Want may, indeed, aggravate the evil, and actual famine, as we unhappily saw a few years ago in Ireland, may give immense development to typhus; but that persons well fed, living in comfort, and strong in health may suffer severely from low fever, is shown by a large experience. One of the best examples, perhaps, is furnished by the sailors belonging to the collier vessels frequenting the Thames. These men as a body are in the prime of life, robust, and well fed; but as I found by examining many of these vessels, the place where they sleep—the forecastle—is excessively small and confined, and with this serious additional evil, that as the hatchway is usually flush with the deck, whenever there is much sea, it becomes necessary to close the hatchway, where the unfortunate sailors must be without any window, as if shut up in a close box. When, too, the vessels come to London, as only one man is required to keep watch at night, all the sailors are crowded at the same time into their closely-packed berths. Some years ago the attention of Mr. Busk, the distinguished surgeon of the Seamen's Hospital Ship, was attracted to the large number of typhus cases which were admitted. In 1841 they amounted to 147; in 1842 to 167. It appeared that of all the vessels in the Thames the colliers furnished the most fever cases. In investigating this question I could detect no other cause than the polluted air these men must have breathed in the confined forecastle. That there is nothing connected with a sailor's mode of life to expose him to typhus is proved by the experience of well-managed vessels, and, as one among the many proofs which might be adduced, I may mention that Mr. Clark, who has made ten voyages to India as surgeon in Messrs. Green's fine vessels, had never had a single case of typhus." The author, after referring to the very great improvement in the health of those of the working

classes who inhabit the model lodging-houses erected in different parts of the town by the Society for the Improvement of the Dwellings of the Labouring Poor, and to the highly satisfactory working of the admirable Act carried by the exertions of the Earl of Shaftesbury for controlling common lodging-houses, said that his own experience of the deplorable conditions of these abodes corroborated the statements of Capt. Hay: all tended to show that such pestilential places were the habitats of disease, and the cause of enormous expense to the ratepayers.

"ON THE EFFLUVIA ARISING FROM PRIVIES AND CESSPOOLS.

"It is the remark of an acute observer, that one of the best tests of the progress a people have made in civilization is furnished by the manner in which they dispose of their excreta. That this observation has a foundation in truth is amply shown, independently of what we see going on around us by the accounts received from India and other semi-civilized countries. Often as the evils arising from the cesspool system have been forced on the public attention, I feel assured that they are still but most imperfectly apprehended. Some glimmerings of the truth have, indeed, broken in upon our darkness; we do not now-a-days hear much of the ancient eulogium on cow-stalls, horse-dung, and similar remedies once popular, and not, as I know, yet extinct. The painful experience of the present winter has likewise convinced the higher classes in many parts of the provinces, that they are not exempt from the dangers of the poisonous effluvia which daily decimate the poor in their neglected abodes. Owing to the increasing attention now paid to sanitary inquiries, and the warnings of our own Profession, the public are beginning to comprehend that much of the sickness and diarrhœa to which especially children in large towns are subject, often attributed to bilious attacks, is in reality dependent on the malaria arising from cesspools and foul drains. Another and more widely-diffused error is, that, because no odour or stench can be perceived, no injurious effluvia can be present; but it is important to point out that poisonous gases may be present in quantities quite sufficient to injure health, and yet without affecting the senses. I had a curious proof of this some few years ago when inquiring into the disinfecting qualities of the nitrate of lime. On visiting the Fever Hospital, the wards were found to be, as they always are, scrupulously clean and perfectly devoid of smell; the day of the month was written on one of the walls with the colourless liquid, and, on examining the writing the next day, the letters had become evident by their dark colour, owing to the presence in the air of sulphuretted hydrogen, and the consequent formation of sulphuret of lead. The effluvia from cesspools, when concentrated, afford a marked illustration of the principle already noticed, that any one of the predisposing causes of epidemic disease is capable, according to circumstances, of developing all the principal members of the class. But the extended inquiries of late years have shown, that affections of the abdominal organs are specially liable to be thus induced; gastric fever of a low character, and often of the remittent type, vomiting, diarrhœa, dysentery, and cholera, are the constant results of what may be termed the privy atmosphere. In the city of Norwich it is a common custom, even in the most respectable houses, to have large cesspools in the cellar or basement, frequently of enormous size, some of them being 60, 80, or 100 feet deep. The effluvia were often most overpowering; and in every instance in which inquiry was made, I found that the inmates, and especially the children, who always suffer more than adults, had laboured under vomiting, diarrhœa, low remitting fever, etc., which were attributed by the medical attendants to the malaria thus arising." Several instances were adduced, which showed in a striking manner the depressing effects on the system, of exposure to an atmosphere impregnated with the effluvia arising from cesspools,—instances in which the mere removal of the contents of the cesspools sufficed to restore to a good state of health those who had previously suffered from exposure. Mr. Grainger then gave the history of the late attack at Southend which occurred in November and December last, and where, from the large quantity of rain that had fallen, and from the town being entirely unprovided with drainage, the lower parts of the houses, both of the upper and lower classes, had been flooded till the soil from the privies and water-closets had become mixed with the water invading the kitchens and basement floor. The water, indeed, had risen as high as the seat of the privy. Many of the first families were attacked, and several deaths occurred in some of the principal terraces, where the rents and taxes of unfurnished houses were often as high as 60*l*., 80*l*., or 100*l*. a-year. "These instances plainly show, that wherever human beings, whether poor or rich, are exposed to the privy atmosphere for a sufficient time and in sufficient intensity, their health inevitably suffers, from a degree which is only called 'ailing,' to nausea, dyspepsia, and diarrhœa; or to low fever, usually of the gastric type, often remittent; to obstinate and fatal diarrhœa and dysentery; or, when present, to cholera. In Christchurch workhouse, belonging to the Whitechapel Union, in 1849, 400 children were lodged. Separated from the workhouse by a narrow lane was a manufactory of artificial manure, where night-soil and putrid blood were desiccated, causing a horrible effluvium in the workhouse, and inducing a large amount of diarrhœa. During the cholera, two outbreaks of diarrhœa were directly traced to these effluvia, each following the resumption of the manufacture, which had been checked by legal processes. But, besides this, Mr. Byles, to whom I am indebted for these particulars, states, that, whenever the wind blew from the works, fever of an intractable and typhoid form prevailed, and that measles, small-pox, and other infantile diseases, assumed a typhoid tendency. He also states, that a most unmanageable and fatal form of aphthæ of the mouth and genitals, running rapidly into gangrene, was so prevalent, that, in one quarter of the year, 12 infants died from it. These attacks were referred by Mr. Byles to the poisonous effluvia; and that he was correct in his opinion was proved by the fact, that when, after repeated attempts to remove this monster nuisance, and after many lives had been sacrificed, the manufactory was finally closed, the health of the whole establishment was so greatly improved, that, up to the date of the report, not a single death occurred among the children except from chronic disease.

"ON SANITARY IMPROVEMENTS.

"After the consideration of so many painful topics, the question suggests itself, Is all this evil, this degradation, necessary? Is it a condition of our existence that these desolating fevers, which sicken and destroy the infant just entering upon life, and sap and undermine the vigour of manhood, should arise and persist, notwithstanding all efforts for their removal? The answer to this all-important query is to be found in the definition of the predisposing causes of epidemic disease. Poisonous effluvia, polluted water, putrid food, are without; they exist accidentally, and form no necessary part of man's nature. We know precisely how they are generated, and we perceive how they may be removed. It is indeed remarkable, that any doubt should ever have existed in intelligent minds on the subject; for it is obvious that the inquiry is infinitely more simple than many of the problems suggested by morbid affections arising from internal causes. The phenomena are palpable—gross they might be termed, both physically and metaphysically; their causes are patent, and force themselves on those entrances to knowledge—the senses. Causes, conditions, results are known; what else is requisite for scientific and successful research? Indeed, the whole question is ripe for solution. Dr. Ferrier, when, on entering a close and crowded room to bring relief to the victim of fever, he thrust his cane through the window, typified the whole category of sanitary evils and sanitary remedies. I have myself seen, within the last three months, two instances essentially the same, where the medical attendants had actually caused holes to be cut in the walls of houses with no outlet at the back, in order to admit fresh air to typhus patients. Let the public, then, know that medical science, even from the remotest ages, has pronounced its decision. The public should also comprehend that this is their question, not ours; nay, it is the very reverse; for, in promoting efficient sanitary reforms, the medical practitioner labours to secure that which, if attained, must, as no one foresees so clearly as himself, involve a sacrifice of pecuniary interest. To the worldly-minded, such a disinterested spring to action is not only incredible, but incomprehensible, and therefore these reject it as a thing impossible. True it is that such lofty motives are not natural to men; they have their origin in purer sources,—in the liberal studies that refine and elevate the mind—in the communion held with God, through the observation of his works—and, above all, in the spiritualising influence of the Gospel of Peace, which, while it declares it to be more blessed to give than to receive, commands us to look on the things of others rather than on our own." Some observations were then made, tending to remind the meeting that even in making improvements in sanitary reforms, great judgment was required, or failures would ensue. These had, more especially, reference to the subject of ventilation. The beneficial results to the health of the poor, caused by the model lodging-houses in St. Giles's and Drury-lane were then alluded to. The lecturer thus concluded his interesting paper: "In bringing to a conclusion the present communication, I feel, Sir, that some apology is due to the Society for its very imperfect character, as, delayed by pressing public engagements and illness, the paper I have had the honour of submitting to your notice will, I fear, present but too many marks of its hasty composition. But, imperfect as it is, I would still hope that it may assist in placing in a clearer point of view two of the most general

and influential agents which concur in lowering the health of the swarming population of our urban districts. The proofs, too, derived from so many sources, demonstrating the possibility of destroying one of the two conditions on which the development of epidemic disease depends, will not, I trust, be altogether unacceptable to those who are interested in that which, in regard to the physical well-being of the people, is the great question of the present time. And if we, who form part of the more favoured classes of Society, escape the miseries and sorrows of our humbler brethren, let us never forget that it is due rather to the fortuitous march of events than to any inherent superiority which we are entitled to claim as our own. The foul abode, the unwashed body, the reeking excrements, by which thousands of our industrious countrymen are surrounded,—inflicting a penalty from which the brute, in virtue of its instinct, is mercifully protected,—these, and an untold number of the like afflictions might, but for the goodness of Almighty God, have been our own lot,—nay worse, the fate of our own children. It might, but for the accident of birth, have been ours to see those nearest and dearest to us, pining, sickening, and dying before our eyes,—the victims of a pestilential atmosphere, from which, though recognised, there was no escape, thus adding to the bitterness of death the consciousness that thus caused it was no necessary part of the primeval curse. It might have been our fate to feel the very springs of life and energy giving way in the midst of manhood, while a young and helpless family were depending on the vigour and capacity for labour which constitute the poor man's only fortune. To those who are ignorant of the scenes daily enacted in the crowded and foul abodes of the populous districts of England, and even in the very centre of the metropolis, this language may bear the semblance of exaggerated sentimentality; but I have, by a long and painful experience, been taught that no words can express, no picture can realise, the misery to which large masses of the labouring population of this country are at the present moment subject, owing to the existence of evils which are doubtless, in the main, attributable to the unprecedented increase of our manufacturing towns, but which must, in no inconsiderable degree, be referred to that neglect, out of which, after a lapse of centuries, we are now beginning to awake."

Dr. James Bird rose to propose that the thanks of the Society be given to Mr. Grainger for the clear and masterly paper which that gentleman had just read. He thought the Society was greatly indebted to Mr. Grainger for having so forcibly pointed out the evils that spring from over-crowded dwelling-houses, and the diffusion of unwholesome effluvia, and for having furnished at the same time such striking evidence of their influence in fomenting disease. His own experience in India enabled him to confirm entirely the views and statements of the author. Want of proper ventilation in the barracks was, he felt convinced, the most prolific source of the mortality among the troops in that country, and he had reason to believe that a similar inattention to sanitary regulations favoured the spread of yellow fever in the West Indies. Dr. Bird then particularised instances in which Her Majesty's troops in India had suffered from want of barrack ventilation, and alluded especially to the unwholesome barracks at Coluba and Secunderabad.

Mr. Rogers seconded the proposition of Dr. Bird.

Dr. Waller Lewis considered one of the chief merits of Mr. Grainger's paper consisted in its abstinence from ill-grounded generalizations. He had, indeed, almost made a rule of three sum of the question, and had shown most conclusively that the diseases and mortality of a community bore a direct ratio to the amount of unwholesome air consumed by the individuals of that community, and a direct ratio to the number of persons congregated in a given space. Facts and deductions like those brought forward by the author would go far towards making the laws in obedience to which zymotic diseases spread and acquired activity an exact science. He was able fully to confirm Mr. Grainger's remarks on the utility of the model lodging-houses, in which he was informed no examples of small-pox had been met with since their establishment.

Mr. Cochrane thought the Society would do well to direct its inquiries to the causes of diseases, and especially of epidemic diseases. He had for some time been occupied in investigating the circumstances of the labouring population, among which he found filth and destitution prevalent to a frightful extent, and disease and death in a corresponding proportion. To remedy these evils, to relieve want, and ensure cleanliness in the dwellings of the poor, his efforts had been strenuously directed, and he was bound to say, that in all his undertakings he had met with more real sympathy and efficient assistance from medical men than from any other class in the community; and it was his deliberate opinion, that society was more indebted for its improvement to medical practioners than to any other body of men whatsoever. Mr. Grainger had observed, that one of the tests of the progress which a nation had made in civilization, was afforded by the manner in which they disposed of their excreta. He (Mr. Cochrane) attended during the past year a very interesting hygienic congress at Brussels, where, among other questions, that relating to the best plan of disposing of the fæcal accumulations in soil-pits and privies was discussed. The system pursued on the Continent differed from that followed in this country. On the Continent the excrement was spread over the land as manure; but in this country it was collected in cesspools, or carried away in sewers. There were, he believed, strong objections to the sewer system, and he doubted whether it was at all better than the old cess-pool system. At all events, it was a subject sufficiently important to demand the gravest consideration, whether a better mode of disposing of human excreta could not be found than that furnished by the present system of sewerage, which was confessedly very imperfect.

A discussion concerning the merits of the existing system of sewerage, and the objections to which that system was open ensued, in which Mr. Pilcher, Mr. Hunt, and one or two other members joined.

The President observed, that the question of sewerage was perhaps rather irrelevant to the immediate subject of Mr. Grainger's paper, although it was undoubtedly a question of great importance; as, however, the time allotted to their meeting had expired, he would offer, in the name of the Society and in his own behalf, their unanimous thanks to Mr. Grainger for his extremely interesting and instructive communication.

The Society then adjourned.

ROYAL SOCIETY.

At the meeting on the 17th inst., a paper was read,

ON THE MUSCLES WHICH OPEN THE EUSTACHIAN TUBE.

By JOSEPH TOYNBEE, Esq., F.R.S.

The author commenced by alluding to the opinion generally held by anatomists, viz.:—That the guttural orifice of the Eustachian tube is always open, and that the air in the tympanum is constantly continuous with that in the cavity of the fauces. An examination of the guttural orifice of the tube in man and other animals has led the author to conclude, that, except during muscular action, this orifice is always closed, and that the tympanum forms a cavity distinct and isolated from the outer air. The muscles which open the Eustachian tube in man are the tensor and levator palati, and it is by their action, during the process of deglutition, that the tubes are ordinarily opened. That the act of swallowing is the means whereby the Eustachian tubes are opened, is shown by some experiments, of which the following may be cited:—If the mouth and nose be closed during the act of swallowing the saliva, a sensation of fulness or distension arises from the air, which is slightly compressed in the fauces, passing into and distending the tympanic cavities. Upon removing the hand from the nose, it will be observed that this feeling of pressure in the ears does not disappear, but it remains until the act of deglutition is again performed, while the nose is not closed. In this experiment the Eustachian tubes were opened during each act of deglutition; during the first act, while they were open, air was forced into the cavity of the tympanum by the contraction of the muscles of the fauces and pharynx, and the guttural orifices of the tubes remained closed until the second act of swallowing, which opened the tubes, and allowed the air to escape. That the act of deglutition opens the Eustachian tubes was inferred also from the custom usually adopted of swallowing while the descent in a diving-bell is performed; by this act the condensed air is allowed to enter the tympanum, and the sensation of pain and pressure in the ears is removed or entirely avoided. The author gives an account of the Eustachian tube and its muscles in mammalia, birds, and reptiles. In some mammalia the muscles opening the tubes appertain as in man to the palate; in others, this function is performed by the superior constrictor muscles of the pharynx. In birds it is shown that there is a single membranous tube into which the two osseous tubes open; this membranous tube is situated between, and is intimately adherent to, the inner surface of each pterygoid muscle, and by these muscles the tube is opened. The conclusion to which the author arrives respecting the influence of the closed Eustachian tubes, is, that the function of hearing is best carried on while the tympanum is a closed cavity, and that the analogy usually cited as existing between the ordinary musical instrument the drum and the tympanum, to the effect that in each it is requisite for the air within to communicate freely with the outer air, is not correct. On the contrary, the author shows that no displacement of the air is requisite for the propagation of sonorous undulations, and that,

were the Eustachian tubes constantly open, these undulations would extend into the cavity of the fauces, there to be absorbed by the thick and soft mucous membrane, instead of being confined to the tympanic cavity, the walls of which are so peculiarly well adapted to the production of resonance, in order that they shall be concentrated upon the labyrinth.

In corroboration of the above views, the author states, that in cases of deafness, dependent simply upon an aperture in the membrana tympani, whereby the sonorous undulations are permitted to escape into the external meatus, the power of hearing has been greatly improved by the use of an artificial membrana tympani, made of very thin vulcanized India-rubber or gutta percha, which is so applied as again to render the tympanum a closed cavity.

MEDICAL NEWS.

Royal College of Surgeons.—The following gentlemen having undergone the necessary examinations for the diploma, were admitted Members of the College at the meeting of the Court of Examiners, on the 18th inst.:—

Atkins, Henry, Southampton.
Banks, Alfred Joseph Humbley, Australia.
Barnes, John Wickham, Bath.
Burke, Richard Joseph, Dublin.
Clarke, Thomas Fernandez, Gerrard-street, Soho.
Hewitt, William, Liverpool.
Jacob, Samuel, Australia.
Jessop, Charles Moore, Bilton, Yorkshire.
Liebig, George von, Hon. East India Company's Service.
Llewellyn, W. Ponsonby Johns, Newquay, Cornwall.
Maltby, Thomas, Shelton, Notts.
Roberts, David Jones, Glantowy, Carmarthenshire.
Sheehy, Thomas, Limerick.

Licentiates in Midwifery.—The following members of the Royal College of Surgeons have been admitted to this distinction, in addition to those already published:—

Batt, Agustine, Witney, Oxfordshire; diploma of membership dated July 9, 1852.
Bolton, Robert Thorley, Australia; April 16, 1852.
Collins, W. Job, Gloucester-rd. Regent's-pk.; Aprl. 24, 1846.
Crook, John Evelyn, Northfleet, Kent; July 16, 1849.
Davies, R. Coker Nash, Winchelsea, Sussex; June 22, 1849.
Ralfs, Edward, Tunbridge, Kent; May 16, 1851.
Terry, George, Northampton, July 10, 1852.
Thomson, T., Brunswick-place, Regent's-park; July 12, 1852.
Tripe, John W., King's-pl., Commercial-rd.; Feb. 11, 1848.
White, Edward, Birmingham, December 10, 1852.
Webb, William, Stafford County Infirmary; April 30, 1852.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, 17th February, 1853:—

Graham, William, R.N., London.
Holman, Constantine, Hurstpierpoint, Sussex.
Milsom, George Page Harriott, Collumpton, Devon.
Timmon, John Joseph, London.

Mr. Cæsar Hawkins, President of the Royal College of Surgeons, and Mr. James Luke, had an interview with Viscount Palmerston on Tuesday at the Home-office.

Preliminary Examination at Apothecaries' Hall.—There are sixty-seven candidates for the next preliminary examination in classics and mathematics at Apothecaries' Hall in March.

APPOINTMENTS.

Medical.—Mr. Henry Stevens, formerly of King's College, has just been elected, by the Governors of St. Luke's Lunatic Asylum, their resident medical officer, *vice* Dr. Arlidge, resigned. Dr. William Munk has been elected physician to the Small-pox Hospital, in the vacancy occasioned by the decease of Dr. Gregory.

Military.—17th Foot: Staff-surgeon of the Second Class Thomas Cowan, M.D., to be surgeon, vice Robert Allan, who retires upon half-pay. 48th Foot: Assistant-Surgeon Thomas Goldie Scot, M.D., from the 79th Foot, to be surgeon, vice James Young, M.D., who retires upon half-pay. 67th Foot: Assistant-Surgeon John Elliot Carte, M.B., from the 14th Foot, to be surgeon, vice Matthew, appointed to the Staff. 2nd West India Regiment: Staff-Surgeon of the Second Class John William Mostyn, M.D., to be surgeon, vice George Allman, who retires upon half-pay. Hospital Staff: Surgeon Thomas Patrick Matthew, from the 67th Foot, to be Staff surgeon of the Second Class, vice Cowan, appointed to the 17th Foot; William Brown, M.D., to be assistant-surgeon to the Forces, vice Poole, appointed to the 73rd Foot; William Alexander Mackinnon, gentleman, to be assistant-surgeon to the Forces, vice George, promoted in the 12th Foot.

Naval.—Acting Assistant-Surgeon Richard Evans (1851) is confirmed as assistant-surgeon in the Blenheim, 60, screw steam guardship, at Portsmouth. Surgeon Thomas H. Keown (1841), to the Winchester, 50, flag-ship of Rear-Admiral Hon. Sir F. B. R. Pellew, C.B., on the East Indian station.

Militia.—2nd Norfolk Militia: Spencer Thomas Smyth, gent., M.D., to be assistant-surgeon and ensign, vice Green, retired.

DEATHS.

Mathison.—Dec. 26, at Vamembundy, of cholera, John Mathison, M.D., H.E.I.C.S.

Monckton.—February 16, from a sudden attack of obstruction of the bowels, which lasted only four days, Jonathan Monckton, Esq., surgeon, of Brenchley, in Kent, M.R.C.S. Eng. 1819; L.S.A. 1818. The deceased gentleman was in his 57th year, and had been engaged thirty-four years in practice at Brenchley, where his personal ancestors had prosecuted the Profession before him for several generations. Mr. Monckton was well known and deservedly respected in his native county. He was a bold and skilful operator, and was famed for the almost universal success of his operations for strangulated hernia. As a man, he was honest, upright, and of sterling principle, and his sudden death has thrown a sad gloom over his many relatives and friends. He has left two sons members of the Profession.

Sibbald.—Feb. 15, at Maidstone, Kent, after a short illness, William Sibbald, M.D. and L.R.C.S. Edin. 1809; Senior Physician to the West Kent Infirmary; Consulting Physician to the Kent Lunatic Asylum and to the Kent Ophthalmic Institution; formerly in the Army, from which he retired with the rank of Physician to the Forces.

At a levee held by the First Lord of the Admiralty, on Saturday, Sir John Liddell, M.D., C.B., Medical Inspector of Hospitals, was received.

Bethlem Hospital.—A Bill is now before the House of Lords, by which it is proposed that this hospital shall in future be opened to the inspection of the Commissioners of Lunacy, under the Act 8 and 9 Vict. c. 100.

Lunacy.—Lord St. Leonard's has three Bills before the House of Lords to amend the law of lunacy. They relate to the regulation of lunatics, proceedings under commissions, and to the care and treatment of lunatics.

Portsmouth, Feb. 20.—Scarlatina continues on board the Agamemnon, 91, Captain Sir Thomas Maitland, C.B., at Spithead, where she is ordered to remain at present. Nine cases were sent from her to the hospital this morning, making eleven fresh cases since 10 a.m. yesterday.

Small-pox.—The packet-ship from Liverpool for New York had put into Hampton Roads with the small-pox on board. Sixty of her passengers had died of the disease. Havannah advices of the 31st ult. state, that the health of the place had greatly improved, and that the small-pox had disappeared.

Medical Inquiry at the Guildford Union.—An inquiry into a case of alleged neglect on the part of Mr. Brook Fishley, medical officer to the Guildford Union, has been just concluded by the Poor-law Board. The following is a copy of the letter sent to this gentleman by the Board, stating their decision:—"Poor-law Board, Whitehall, 15th February, 1853. Sir,—I am directed by the Poor-law Board to inform you that they have received the report of their inspector, Mr. Pigott, upon the inquiry recently held by him, into the complaint made against you, of having failed to pay due attention to the case of the late Job Raggett. A careful consideration of the evidence produced on the occasion of the inquiry has satisfied the Board that you paid as long and frequent attention to the case, in the first instance, as could have been reasonably expected, and as your duty as medical officer required. The Board regret, however, to be obliged to add, that your care at the close of the case was less than at its commencement, and that your omission to visit the poor boy on the Wednesday night preceding his death precludes the Board from having the satisfaction of affording you that full acquittal in respect of the present complaint which they would otherwise have felt themselves justified in conferring upon you.—I am, Sir, your obedient servant, (signed) W. G. Lumley, Assistant-Secretary. To Brook Fishley, Esq., Medical Officer, Guildford."

PUBLIC BATHS AND WASHHOUSES.—I. An Account of the Bathing and Washing at the Establishments in London, which are conducted under or in accordance with the Acts 9 and 10 Victoria, c. lxxiv., and 10 and 11 Victoria, c. lxi., and at a few out of the many similar establishments in the country:—

Name and Title of the Establishment.	Lady-day Quarter.	Midsummer Quarter.	Michaelmas Quarter.	Christmas Quarter.
METROPOLIS.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
The Model, Whitechapel	547 4 3	805 0 9	1,010 17 5	528 19 2
St. Martin-in-the-fields	782 19 3	1,124 9 9	1,126 18 2	619 19 11
St. Marylebone	382 4 1	740 1 2	1,040 2 11	368 10 3
St. Margaret and St. John, Westminster.	246 4 6	503 14 1	803 2 9	330 7 1
Greenwich	107 4 0	256 7 3	508 9 9	152 1 8
St. James, Westminster (opened June 12)	—	79 10 11	620 15 9	303 3 7
Poplar (opened July 19)	—	—	230 8 0	144 10 9
Totals	2,065 16 1	3,509 3 11	5,390 14 9	2,447 12 5
COUNTRY.				
Liverpool:				
(a) Cornwallis-street	241 12 3	470 13 11	643 18 3	242 8 9
Paul-street	107 12 6	180 15 10	299 15 11	131 19 8
Hull	122 7 10	189 19 9	256 6 7	109 5 8
Bristol	127 17 9	169 0 7	210 19 2	90 1 1
Preston	60 8 4	96 15 0	174 17 6	60 8 7
Birmingham	146 3 8	421 3 10	834 19 11	195 18 4
Maidstone (opened May 24)	—	67 0 8	151 5 2	57 14 10

Metropolis.

	Total Receipts.
The Model, Whitechapel	£2,892 1 7
St. Martin-in-the-Fields	3,654 7 1
St. Marylebone	2,530 18 5
St. Margaret and St. John, Westminster	1,883 8 5
Greenwich	1,024 2 8
St. James, Westminster (opened June 12)	1,003 10 3
Poplar (opened July 19)	424 18 9
	£13,413 7 2

Country.

Liverpool—	
(a) Cornwallis street	£1,598 13 2
Paul-street	720 3 11
Hull	677 19 10
Bristol	597 18 7
Preston	395 9 5
Birmingham	1,598 5 9
Maidstone (opened May 24)	276 0 8

II.—A statement showing the steady increase of bathers and washers in London:—

	Bathers.	Washers.
The aggregate numbers at seven establishments in the metropolis, from January to December, 1852, inclusive, amount to	800,163	197,580
Corresponding period of 1851, five establishments	647,242	132,251
Corresponding period of 1850, three establishments	509,200	60,154
Corresponding period of 1849, two establishments	297,831	9,070
Corresponding period of 1848, one establishment (Goulston-square, Whitechapel)	48,637	—
Showing an increase in 1852 over the corresponding period of 1848 of	751,526	197,580

And an aggregate in five years of more than 3,100,000 bathers and washers. The figures in the foregoing statements are irrespective of the bathers and washers at the George-street establishment, which is not conducted according to the Acts.

JACKSON *v.* ROE.—The plaintiff in this case, which attracted so much attention among the Profession when it was tried, and in which a verdict was given for the defendant, lately applied to the Insolvent Court for relief from his debts, when it appeared that, although he had paid his other creditors in full, not only Dr. Roe's expenses in the action were not paid, but even a great part of his own (the insolvent's) solicitor's charges were unsatisfied. The insolvent was remanded for two months from the vesting order for undue preference. Thus, Dr. Roe, although the decision was in his favour, is saddled with the payment of his own law costs. It is a very hard case; an unjust charge was made against him by the plaintiff, and, that being defeated, the defendant in the case is absolutely amerced in what is really a heavy fine, the payment of the law costs. Defendants in such cases may say with Pyrrhus, "Another such a victory and I shall be undone."

A PRESCRIBING CHEMIST.—An inquest has been held lately at Camden-town on the body of a female child, seven years old. The evidence showed, that the child being ailing, the mother took it to a chemist, fancying he was a medical man, and he prescribed for it, but it got worse and died. Mr. Weathers made the *post-mortem* examination. He said that all the organs were healthy, and that if a slight eruption under the skin had been brought out, life would have been saved. The deceased died from congestion of the brain. If a medical man had been called in, the child might now have been alive. The coroner and jury strongly censured the chemist for practising an art and science with which he was unacquainted,—conduct which, the former said, almost always involved lamentable and very often fatal consequences.

ANOTHER CASE OF POISONING BY AN AGENT OF DR. COFFIN.—On the 16th inst. an inquest was held on the body of Mrs. Charlotte Cardwell, aged 55, a lady of property, residing at No. 1, Shrubland-street, whose death was caused by the administration of lobelia, prescribed for her by an unqualified practitioner, an agent of Dr. Coffin. The following evidence was received:—Dr. Letheby said, he had examined the physic found in the deceased's room, which she was in the habit of taking. In one bottle he found cayenne pepper; in another bottle he discovered a decoction of marsh-mallows and linseed, or something of that description, together with mustard or cayenne pepper; in a third bottle, which contained a thick, brownish fluid, he found it consisted entirely of lobelia seeds, with a little of the powder and a quantity of cayenne pepper; the fourth bottle contained the contents of the stomach, which consisted of about two tablespoonsful of a thick, brown fluid. Upon an analysis of the fluid, it produced 110 grains of lobelia powder, with cayenne pepper (a phial, with the grains in it, as stated, was here produced). On a solution of the powder found in the stomach, he recognised a solution or tincture of lobelia. He examined the powder, but he detected no lobelia, and he believed it to be what is called by the agents of Dr. Coffin, a "composition powder." In the duodenum was also a quantity of lobelia; and he was of opinion, that there was quite sufficient lobelia in the stomach to kill the deceased. He had no doubt but that, from its irritant character, it would produce the effects deposed to by Mr. Clarke. He had had two cases under his notice where similar symptoms were exhibited in the body from the action of lobelia. And there were nine other cases reported, in four of which a verdict of manslaughter was returned. Lobelia was a powerful poison. Verdict—"Manslaughter against Wm. Hobson Palmer."

ADULTERATION OF LARD.—A communication has been received by the Pharmaceutical Society, on the above subject, from Mr. Whipple, in which he states, that for some time past he has had reason to suspect the purity of commercial lard, and had recently made a few experiments, which led to the detection of large quantities of some farinaceous substance in it. In a quantity weighing 105¼lb. he found as much as 22¼lb. of this foreign matter; and in another lot, weighing 43¾lb., he found 12¾lb. of a similar substance. Mr. Whipple points out the pernicious effects which this adulteration would be likely to produce in the employment of such lards for some pharmaceutical purposes, and the danger which might ensue from its application to machinery. In another communication from Mr. Calvert, of Manchester, that gentleman confirms Mr. Whipple's statement, and informs us, in addition, that the American lard analysed by him contained from 10 to 12 per cent. of water, 2 to 3 per cent. of alum, and about 1 per cent. of quicklime. The quantity of alum, it is supposed, is added by the manufacturer for the purpose of communicating to the lard the property of facilitating the raising, and increasing the whiteness, of the confectioner's paste, in which it is largely employed.

MORTALITY NOTABILIA.—The effect of increased coldness of the weather is visible in an increased mortality amongst old and young. The mean temperature of the air in the second week of January was 45°; and the deaths of London were 1001. In the week that ended last Saturday, the mean temperature was only 29·8°, and the deaths registered rose to 1328. Since the former week, the weekly temperature has declined according to the following series:—41·9°, 37·7°, 36·5°, 34·8°, and 29·8°; and the mortality has concurrently risen according to the following num-

(a) The washhouses at the Cornwallis-street establishment are not yet completed.

bers; 994, 1011, 1220, 1235, and 1328. In the ten corresponding weeks of the years 1843-52, the average number of deaths was 1098, which, with a correction for increase of population, becomes 1208. The deaths of last week, therefore, exceed the estimated amount by 120. It appears that, while persons of all ages have suffered, the severity of the weather has been most fatal to persons in advanced life. Well-heated apartments, warm clothing, and comfortable lodging at night,—at all times necessary in this climate,—are indispensable at this season to the aged, who find it difficult to support life when the temperature has fallen below a certain point. The deaths from bronchitis, in the last five weeks, have been 82, 91, 110, 168, 184; those from hooping-cough rose last week to 66; those from consumption to 167. Taking the last six weeks, and, comparing the facts of the former half of this period with those of the latter half, it is observed, that the mortality in the West Districts has increased 36 per cent.; in the north, 31 per cent.; in the central, 17 per cent.; in the east, 30 per cent.; and in the districts south of the Thames, 19 per cent. As may be supposed, from the generally advanced age of the persons who inhabit them, the mortality in workhouses has been great; the number of deaths amongst their inmates rose last week to 164, though it has been frequently not more than half of that amount. In military and naval asylums the deaths were 9; in general hospitals, 51; in hospitals for special diseases, 3; in lunatic asylums, 12; in military and naval hospitals, 3.

DEATHS *in the Metropolis for the week ending Saturday, February* 19, 1853.

Causes of Death.	Feb. 19. 0	15	60	All Ages.	Sum of Ten Weeks.
All Causes	534	424	370	1328	10975
Specified Causes	530	424	370	1324	10938
1. Zymotic (or Epidemic, Endemic, and Contagious) Diseases ...	178	33	13	224	2024
Sporadic Diseases:					
2. Dropsy, Cancer, and other Diseases of uncertain or variable seat ...	3	25	23	51	540
3. Tubercular Diseases	78	140	11	229	1897
4. Diseases of the Brain, Spinal Marrow, Nerves, and Senses ...	64	33	43	140	1324
5. Diseases of the Heart and Blood-vessels	...	25	19	44	440
6. Diseases of the Lungs and of the other Organs of Respiration ...	99	102	130	331	2280
7. Diseases of the Stomach, Liver, and other Organs of Digestion...	30	23	13	66	561
8. Diseases of the Kidneys, etc. ...	2	12	6	20	118
9. Childbirth, Diseases of the Uterus	...	3	2	5	105
10. Rheumatism, Diseases of the Bones, Joints, etc.	2	8	3	13	88
11. Diseases of the Skin, Cellular Tissue, etc.	1	...	...	1	13
12. Malformations	8	...	...	8	34
13. Premature Birth and Debility ...	24	1	...	25	214
14. Atrophy	22	3	3	28	172
15. Age	...	...	93	93	674
16. Sudden	1	1	4	6	134
17. Violence, Privation, Cold, and Intemperance	18	15	7	40	320
Causes not Specified	4	...	...	4	37

TO CORRESPONDENTS.

A Union Surgeon and Constant Reader.—A supply of from two to four cubic feet of air per minute for each person, has usually been considered a large amount. According to the experiments of Dr. D. B. Reid, however, not less than ten cubic feet of air per minute should be allowed to procure an agreeable temperature. In the present Houses of Parliament from 36,000 to 50,000 cubic feet per minute have occasionally been given in warm weather to one apartment alone, or about sixty feet per minute to each individual in a crowded house.

Medicus is thanked for his communication. The subject mentioned shall receive attention.

Dr. Rennie, Royal Ordnance Hospital, Woolwich.—The number of communications waiting insertion in our columns compels us reluctantly to decline Dr. Rennie's paper.

Iago.—There is no objection to your joining a medical school in the summer, but the lectures attended will not be registered.

Thomas Wiglesworth, Esq., Colcford.—We regret that we are unable to give insertion to the letter on "Shoulder Presentation." The subject has already occupied a large portion of our space, and no good purpose could be served by publishing further critical observations upon Dr. Mayne.

Students.—It was in 1461 that Edward IV. incorporated the barbers as surgeons, but it was not until 1506 that the barbers and surgeons of Edinburgh were incorporated. In a Petition to the City Council from the latter, it was demanded,—"that every man that is to be made freeman and master amongst us, be examined and proved in the poyntes following. That is to say, that he knaw anatomia, nature, and complexions of every member of humans body; and likewayes, that he knaw all the vaines of the samen, that he may make phli-bothmia in due tyme. And, alse, that he knaw in quhilk membir the signe has dominatione for the tyme; for every man ought to knaw the nature and substance of everything that he works in, or else he is negligent. And that we may have ance in the year, a condemned man, after he be dead, to make anatomia of quhair throw wee may have experience ilk ane to instruct others, and we shall doe sufferage for the saule. And that no barbour, master, nor servant within this burgh, haunt, use, nor exerce this craft of surregiare, without he be expert, and knaw perfittle the things above writin. Item: that no master of the said craft shall take ane apprentice or servant man in tyme coming, till use the surregiane craft, without he can baith read and wryte."

F.R.C.S.—Dr. Copland is to be proposed as the next President of the Royal Medical and Chirurgical Society.

Nemo, Croydon.—The evidence in the case of Mr. Shorthouse is at present of so contradictory a nature, that we wait for the conclusion of the inquiry before noticing it.

F.R.S.—The Insurance Office referred to is in the habit of paying the usual fee to the medical referee.

Medicus, Hampstead.—The lectures at the College of Physicians are delivered every Wednesday and Friday at four o'clock, until their completion.

The following Advertisement is extracted from the columns of a daily newspaper. Who can the M.D. be?—"Maison D'Accouchement.—A married Physician-Accoucheur of extensive experience continues to receive Ladies at his Establishment who may require the comforts of a Home during their Confinement, with or without medical attendance, as may be preferred.—For terms, apply to M.D., 63, Mortimer-street, Cavendish-square, London."

Mr. Geo. W. Pretty.—Dr. Watson's Lectures; Muller's Principles and Practice of Surgery; Ramsbotham's Midwifery; Taylor's Manual of Medical Jurisprudence; Fownes's Manual of Chemistry; Pereira's Materia Medica; Vogel's General Pathological Anatomy, by Dr. Day; Dr. Fuller's Work on Rheumatism; Dr. Marshall Hall's Various Memoirs; Dr. Walshe on Diseases of the Heart and Lungs; Dr. Budd on the Diseases of the Liver; Dr. Ballard on the Physical Signs of Diseases of the Abdomen.

[To the Editor of the Medical Times and Gazette.]

Sir,—You will oblige by publishing this case—

PUERPERAL CONVULSIONS.

I was called about a month since to a woman, aged 27 years, who had been delivered eighteen hours before I saw her of her seventh child. She had suffered during the day (after delivery) severely from convulsions, and was quite out of her senses. The blood ran freely out of her mouth, as, in grinding her teeth during the convulsions, she had bitten her tongue.

I bled her freely, applied cold vinegar to the head, jars of hot water to the extremities, and mustard poultices over the bowels, thighs, and legs, to stimulate these parts, and to divert the irritation from the brain. I gave her about 14 or 16 drops of croton oil, which operated freely, and produced sufficient irritation in the mucous membrane of the intestinal canal, after which congestion and irritation in the brain ceased. She recovered her speech, and was speedily restored.

I have seen many cases of puerperal convulsions in the neighbourhood during the last twenty years, and it has been ably remarked, that some localities have never been visited with such dreadful complaints, whilst other districts have frequently been the scenes of such afflictions. I read, in Dr. Denman's able work on midwifery, that some aged practitioners had never seen a case of puerperal convulsions during a long and extensive practice. It is my opinion, that females in large mining districts, such as St. Austle Gwennap, Redruth, Illogan, Camborne, etc., are more subject to these complaints than they are in purely agricultural and other localities. Dr. Denman very wisely states, that he has known cases of puerperal convulsions brought on by an opiate given during labour, and this should be avoided as much as possible. I have never known a large dose of croton oil fail: before this case I have frequently given ten drops. I am never afraid of a large dose of croton oil; the irritation it produces in the bowels is speedily removed by its operation—the quicker the better, as the chances of recovery are greater, and its quick operation removes the very irritation and pain it produced.

I am, &c.

Redruth, Cornwall. Henry Harris.

COMMUNICATIONS have been received from—

J. Toynbee, Esq.; Dr. Letheby, London Hospital; W. R. Milner, Esq., Wakefield; E. Hussey, Esq., Oxford; Dr. Waller, Finsbury-square; Dr. M'Cormac; R. Dunn, Esq., Norfolk-street; Dr. Rennie, Royal Ordnance Hospital, Woolwich; J. W. K. Paulovich, Esq., Ravensborough; The Hon. Secretaries of the Manchester Medico-Ethical Association; Dr. Ramsbotham, 7, Portman-square, and the London Hospital; Wm. Fergusson, Esq., F.R.S., King's College Hospital; Dr Frederick Farre, Montague-street, Russell-square; Jonathan Hutchinson, Esq., Carthusian-street; Dr. Markham, Clarges-street, Piccadilly; Robert M'Kibbin, M.D., Belfast; A. M'K. Millman, Esq., New Galloway; Henay Harris, Esq., Redruth, Cornwall; W. Brigham, Esq., Lymm.

ORIGINAL LECTURES.

LECTURES
ON THE ACUTE SPECIFIC DISEASES.
BEING THE GULSTONIAN LECTURES.

DELIVERED AT

The Royal College of Physicians.

By WILLIAM JENNER, M.D. Lond., F.R.C.P.
Professor of Pathological Anatomy, University College; Physician to the Hospital for Sick Children, etc.

Sir,—Among the *idola specûs*, the father of the inductive sciences ranked the tendency of some minds to fasten on the differences of things to the neglect of their agreements, and of others to perceive the agreements and pass by unheeded the differences—to divide where nature has drawn no line, and to generalise where nature has bestowed no unity.

Physicians, like other philosophers, have sometimes paid homage to these idols of the den; and, from their inability to resolve into their simple elements, the very complex phenomena they study, are peculiarly tempted by these—to use Bacon's figurative language—"seducing familiar spirits."

To avoid the errors thus indicated, a review of the principles and facts that guide us in determining that a series of individual cases are really identical, and ought to be called by one name, or that a series of diseases ought to be grouped into one class from a supposed relationship existing between them, is from time to time, as our pathological knowledge advances, essential.

And such a review is well suited to an occasion like this. To prove the frequency of particular symptoms and lesions of structure in any given disease, the duration and mortality of the same,—the influence on its course and termination, of age, sex, season, etc.,—the curative effects of various remedial agents,—to prove any one of these, or any similar points, an analysis of recorded observations is essential. Mere enumeration can give a correct answer to the most simple questions only; in reference to all others, a comparison of various enumerations, and an analysis of the items used in the enumerations, are essential for the formation of a correct conclusion. But neither numerical analyses nor a close examination of the facts used in the analyses can be efficiently made in a verbal discourse; and it is for this reason, therefore, that lectures are suited especially for the dogmatic teaching of established doctrines, and for general surveys of admitted facts and their relations.

Just as no two animals are absolutely alike, and no two plants the same in all particulars, so no two cases of disease are in all points identical. Nature knows only individuals. And yet, to use the words of the Preface, so replete with wisdom, affixed by Sydenham to the third edition of his "Observations on Acute Diseases," "it is necessary that all diseases be reduced to definite and certain species, and that with the same care which we see exhibited by botanists in their phytologies; since it happens, at present, that many diseases, although included in the same genus, mentioned with a common nomenclature, and resembling one another in several symptoms, are, notwithstanding, different in their natures, and require a different medical treatment." For the purpose of effecting this desirable division of diseases, Sydenham laid down certain rules, which may be briefly stated thus:—

1st. Every physiological hypothesis must be laid aside. "No man," he remarks, "can state the errors that have been occasioned by these physiological hypotheses."

2ndly. The clear and natural phenomena of the disease should be noted. "They should be noted," he says," "accurately, in all their minuteness; in imitation of the exquisite industry of those painters who represent in their portraits the smallest moles and the faintest spots."

3rdly. The peculiar and constant phenomena must be enumerated apart from the accidental and adventitious.

4thly. The season of the year in which the disease occurs ought to be observed; that is to say, the external conditions which may possibly cause the disease, modifications in the symptoms, local complications, etc., are to be considered.

Thus, Sydenham thought all diseases might be divided into definite species, and time has tended to confirm his opinion; for, by a close adherence to these rules, the existence of several species of the same class, and as well defined as the two he so sagaciously divided, and of which he gave such truthful descriptions, have been established. And the especial objects I propose to myself in the lectures I have had the honour of being appointed to deliver, are to point out what appears to me to be the real differences which separate these particular species from each other, and to indicate the true affinities of these same species to each other,—the grounds of their union into class, and the foundation of their division into species. And I choose this subject, in the *first place*, because I feel that it becomes a junior Fellow of the College to select for these lectures the subject of which his personal experience has been most extensive;—that he ought here to treat only of matters concerning which he may hope that his own knowledge is inferior to that of his hearers in a less degree than on any other; and, *secondly*, because it affords an opportunity, not only of pointing out the agreements as well as the differences of these species, but also of indicating the diseases which, in practice, have been often confounded with certain of them, and the diseases, on the other hand, for which some varieties of these species have been themselves mistaken—a confusion which has fostered the opinion, that the limits of these species are ill-defined, and their symptoms most variable.

It is from Sydenham that many of the leading ideas now current concerning the acute specific diseases are derived. He divided acute diseases into two great classes, viz., stationary and intercurrent fevers. The latter, he held, occurred at particular seasons, and owed their origin to appreciable atmospheric changes,—*e. g.*, temperature and moisture.

Pleurisy and quinsy were adduced by him as examples of this class. In the present day, the majority of the diseases arranged by Sydenham under the head of intercurrent fevers are believed to be essentially local affections, the constitutional disturbance or fever which accompanies them being regarded as symptomatic.

Of stationary fevers, Sydenham distinguished two kinds, viz., the typical or proper fevers, and the twin sisters of the typical or the variable fever. The typical or proper stationary fevers preserved their essential characters through a series of years, only from time to time they varied in some particulars a little; and yet, ever amid the prevailing variety, cases in all points identical with the model or type of the disease occurred. Of these typical or proper stationary fevers, small-pox and measles were the best-defined species. In the epidemics of these diseases which Sydenham witnessed, both presented, for a while, deviations from what he considered to be their most perfect form; but still, notwithstanding these deviations, they preserved their *essential* characters. Sydenham never doubted the essential identity of the measles of the dysenteric constitution of 1669, "the most perfect of their genus," with those of 1674, which "adhered less to their proper type."

What I have termed Sydenham's second class of stationary fevers, was constituted by those diseases which, in the present day, have been termed continued fever. The diseases of this class he held to be most variable in all their characters,—varying in symptoms and in the treatment they required with each change in the constitution of the atmosphere, and, consequently, with each change in the prevailing epidemic.

By epidemic constitution, Sydenham signified some state of the atmosphere arising from "certain hidden and inexplicable changes within the bowels of the earth,"—a condition originating, that is to say, neither in heat, cold, wet, nor drought,—a condition known to exist only by its effects in determining the origin, or spread, or peculiarity in symptoms, of any one of the stationary fevers, and of their "twin sisters," the variable fevers, which accompanied them. Now, the tendency of more recent investigations has been to remove the whole of the diseases included in the group of variable fevers into that of "typical or proper" fevers,—to erect from the individuals of this class a series of distinct species.

Taking small-pox and measles as the type of the proper stationary fevers, I propose to examine what are the peculiarities of these two diseases which render them thus fitted to be the type of a class, and why they are separated from each other as distinct species; what general characters they have in common, and what are the special characters which divide them; what it is which constitutes their bond of union, and what are the grounds of their separation.

In both general constitutional disturbance precedes the

occurrence of any local lesion; both are attended in their progress by local affections; both have a limited and definite course; and, from those suffering from either, a something capable of inducing a disease identical with itself in all essential points is evolved. The general constitutional disturbance is manifested by increase of temperature, rapidity of pulse, loss of muscular power, and sense of malaise. The great peculiarity of the local affection is its disseminated character. (a) Thus, inflammation of the skin commences in innumerable points unconnected with each other. Many parts of the mucous membranes suffer at the same time, not of one tract only, but of several; and that not by extension, but by the establishment of separate centres of diseased action. Organs at a distance from each other, and not known to be especially related, suffer simultaneously; the spleen increases in volume, the lymphatic glands enlarge, and the lungs are frequently inflamed at several points of their substance.

In both there is a more or less sudden commencement, and in both, after the lapse of a certain number of days, if the case be not fatal, restoration to health. The disease terminates usually on, and invariably before, a given day; while certain lesions appear at a fixed time after the outset of the constitutional disturbance.

Both have their origin in the action of a specific cause. Just as a plant produces a seed from which another plant essentially identical with the parent may spring, so from every case of these two diseases is evolved a something,—a seed which can develope a disease essentially identical with the parent disease.

But by neither the seed of the plant, nor the seed of the disease, can this power of development be exercised, unless the conditions of development be given. An acorn could never develope into an oak, if it lay on a dry stone, exposed to the light of the sun; nor the seed of small-pox develope small-pox if deposited in the blood of a man who had recently suffered that disease. The power of development would be there in both cases; the conditions of development would be wanting.

In the power of propagating themselves, and themselves only, lies the test of the specific difference of plants. In the power of reproducing themselves, and themselves only, also lies the test of the specific difference of these two diseases. Could it be shown that from the same seed, under different conditions of development, might spring the oak and the lily, then would naturalists admit, no matter how dissimilar in external characters, that these plants were specifically identical. So, in regard of these diseases, could it be shown that the something, the seed evolved from a person labouring under either, could, the conditions of development being different, develope the symptoms of the other, then must small-pox and measles be held to be specifically identical. But the power of reproducing themselves, and themselves only, *is* possessed by small-pox and measles, as it is by the oak and the lily, and therefore the diseases, like the plants, are held to be distinct species.

But the conditions of development being different, from the same acorn may spring an oak the most perfect of its kind, and one the most diminutive in size and ungainly in form, and the seeds, again, from either of these, may develope, under different external conditions, into the perfect or the anomalous tree; and for this reason it is that the perfect oak and the anomalously formed oak are held to be mere varieties of one and the same species; and so in reference to small-pox and measles. As a person exposed to the effluvia of the most perfect of either kind may be affected with the most anomalous form of the same kind, while another, exposed to the emanations arising from a third person affected with the anomalous form, may have the perfect disease, the anomalous and typical diseases themselves are held to be merely varieties of one and the same species.

Typical small-pox and anomalous pox spring up indifferently from the same seed, the conditions of development only being unlike.

Typical measles and anomalous measles spring up indifferently from the same seed, the conditions of development only being unlike. Hence the typical and anomalous diseases are mere varieties of the same species. But the seed of measles cannot develope small-pox, nor that of small-pox measles, however the conditions of development be varied, and therefore it is that they are held to be true species.

Having thus eliminated in respect of these types of the proper or typical stationary fevers of Sydenham, their common invariable characters, it will be seen that an enumeration of these points of conformity constitutes a definition of a perfectly natural order of diseases, viz.,

Acute diseases of definite duration, capable of reproducing themselves, and attended in their course by disseminated lesions of structure.

The distinct species of disease referrible to this order, are far more numerous than those included in it by Sydenham; to it unquestionably belongs one disease he ranked only as a moderate effervescence of the blood, viz., scarlet fever; and I think it may now be proved, that to it also belong all those fevers which Sydenham described as the twin sisters of measles, of small-pox, of dysentery, etc., those which may be termed the variable fevers. In fact, that we have now reached that stage of pathological knowledge, where we are able to include almost all the epidemic diseases that affect in our day the inhabitants of Great Britain in Sydenham's order of typical or proper stationary fevers, and to group them into species, and to show that each of these ha preserved through series of years, and, consequently, during many changes in the epidemic constitution of the atmosphere, and many changes in the conditions of its development, its essential symptoms, run its definite course, been attended by the same lesions of structure, and continued capable throughout of reproducing itself in all its integrity.

In this order or class, or genus, are to be included the following well-defined species: — Small-pox, erysipelas, measles, typhus fever, scarlet fever, typhoid, fever, and relapsing fever. It is not to be supposed that there are no other species belonging to this group. Cholera, to which it may be that autumnal diarrhœa bears the same relation that febricula does to typhus, glanders, yellow fever, and plague, may possibly, nay, probably, belong here; but at the present moment we are scarcely in a position to assign to them so definite a place. There is another, it appears to me, equally natural group of diseases, to which I shall have occasion hereafter to refer more particularly, from the fact of cases of the species which I would include in it being often confounded with some of those of the acute specific diseases. This order, however, for the sake of comparison with that just described, I shall now define, and thus:

Acute diseases of definite duration, attended in their course by disseminated lesions of structure, but incapable of reproducing themselves.

As examples of this order, I may mention—

Acute tuberculosis.

Acute purulent diathesis, or pyogenic fever.

Acute cancer.

I have spoken of the diseases of the order I first defined, simply as acute specific diseases, yet our present knowledge almost justifies the term of acute specific blood diseases; for, although actual observation has failed to demonstrate any constant change in the composition of that fluid in any one of these diseases, yet there is no question that the blood is at the outset either the medium for the circulation of the seed, poison, materies morbi, ferment, or whatever be the particular principle on which the development of the phenomena which indicate the existence of these diseases depends; or, that from the very first the infectious principle produces such a change in the blood itself, that that fluid is so altered in quality as to produce the phenomena of the disease. But that, whatever be the condition of the blood at the outset of these affections, it does, in the progress of severe cases, undergo some change, is a matter of direct observation, for chemically and microscopically it then differs from healthy blood.

There are several indirect evidences also of an abnormal condition of the blood in the diseases of which I am speaking; *e.g.*, the alteration of the animal temperature and the departure from health of the various secretions from the very first; the deviation from its natural size and consistence of the spleen in so large a proportion of cases, and the disseminated character of the structural changes;—the simultaneous occurrence of so many functional derangements, and subsequently of so many organic lesions.

Leaving, however, this point as beyond the purpose I have in

(a) Quelques médecins ont comparé l'état de l'intestin (*i.e.*, in typhoid fever) à celui de la peau dans les affections exanthématique, mais je ne sache pas qu'aucun ait rapprnché les unes des autres toutes les phlegmasies qui se montrent ainsi disséminées, et deduit de ce rapprochement les conséquences qui ressortent généralement de la comparaison de faits analogues." —*Chomel, Lecons de Clinique Médicale Fievre, Typhoide*, p. 442.

view I propose now to consider the peculiarities manifested by each of the species which I have enumerated as belonging to the group of proper stationary fevers, with reference to the several points which constitute, considered generally, the grounds for their combination into one class or genus, taking typical cases of each for the terms of comparison, and

1st. Of the general symptoms which precede the local lesions of structure, and, during the whole course of the disease, are out of proportion to them in severity—Rigors; abnormally high temperature; pain in the back and limbs; headache; mental disturbance; increased frequency of pulse; loss of muscular power, and general sense of illness; these, it may be said, are common to all, but still they present marked differences and peculiarities in regard of each of the species in question.

A severe *rigor* often ushers in an attack of small-pox, of erysipelas, and of relapsing fever. Rigors are very common, but rarely severe at the outset of typhus fever; they are of infrequent occurrence in measles and scarlet fever.

In typhoid fever rigors are replaced by a frequently repeated sense of chilliness. A rigor occurring so long after the outset of the disease as that which ushers in the relapse in relapsing fever, would, in typhoid fever, as has been proved by Louis, indicate the establishment of some serious local complication.

The *temperature* of the skin, which from the very first is much higher than in health in scarlet and relapsing fevers, is in typhus fever peculiar in kind—pungent, biting, but not particularly high. In small-pox it often, and in typhoid fever occasionally, falls considerably after the appearance of the eruption.(a)

The severity of the *pain in the back* in small-pox is, as is well known, singularly great; in erysipelas it is often complained of a good deal. In typhus fever the pain is usually more severe in the limbs than in the back, while in relapsing fever it is commonly present and often severe in both situations. In typhoid fever, scarlet fever, and measles, the pains in these parts are generally from first to last trifling.

Present in all these diseases, *headache* varies in severity and duration in each. Thus in small-pox it is severe at the moment of invasion, but quickly disappears; in relapsing fever it continues through the whole of the primary attack and of the relapse; in typhus and typhoid fevers it is one of the more constant symptoms at the outset, and in both disappears spontaneously, but some days earlier in typhus fever than in typhoid fever. Headache is by no means a prominent symptom in typical cases of scarlet fever or measles.

The *mind* in scarlet fever, measles, and relapsing fever is unaffected, or active delirium, mild in character, occurs at night.

In typhoid and typhus fevers the power of collecting, directing, and fixing thought first fails, then the power to appreciate the duration of time,—periods of time that elapse between given events are to the patient's imagination lengthened, minutes seem hours, hours days, and days weeks, and rarely, *if ever*, the reverse. In typhus fever this mental incapacity gradually merges into the lower form of delirium. The same happens in some cases of typhoid fever. Occasionally, however, as in small-pox, active delirium is one of the earliest symptoms in typhoid fever, and then, as in small-pox, it ceases when the eruption appears. This probably never occurs in typhus fever.

In small-pox and scarlet fever, measles and relapsing fever, the *general sense of illness* may be extreme; at the same time the patient loses the power of exerting to any considerable extent his muscular powers; he feels and is really weak. In typhoid fever, the loss of muscular power is yet greater; but it is in typhus fever that this is from the first the most marked. In small-pox, measles, scarlet fever, erysipelas, and relapsing fever, the patient ordinarily assigns as the cause for keeping his bed a sense of general illness. In typhoid fever, this is often the case; but, in typhus fever, the all but constant reply to the question, why did you take to bed? is, "Because I was too weak to keep about."

A *frequent pulse* is a symptom common to all the acute specific diseases,—one of their bonds of union; but it is also one of the grounds of their distinction.

Here is a Table representing the pulse typical of some of these diseases:—

Table I.—Typical Pulse in

Day of Disease.	Relapsing Fever.						Typhus Fever.						Typhoid Fever.					Scarlet Fever.					Day of Disease.
1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
3	...	...	120	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	120	120	...	3
4	...	...	120	...	...	...	...	...	...	...	...	...	...	...	...	...	...	130	...	120	120	...	4
5	...	120	124	...	...	...	84	...	120	...	...	...	...	...	...	...	...	120	120	120	120	120	5
6	120	90	72	...	...	...	96	...	120	...	...	...	...	...	...	120	...	108	96	...	96	120	6
7	120	80	...	...	...	...	96	...	120	100	...	...	...	...	...	100	...	...	84	90	84	96	7
8	120	...	...	...	84	70	102	...	120	100	...	...	...	...	...	...	...	...	...	...	...	...	8
9	72	72	60	...	80	60	108	120	108	108	114	...	...	108	...	96	...	96	...	...	96	84	9
10	...	...	...	...	...	...	120	120	108	120	120	...	...	120	100	90	...	...	...	...	80	84	10
11	...	...	...	...	...	...	120	120	96	120	120	...	...	120	100	...	...	...	...	...	70	80	11
12	...	...	...	...	...	...	120	120	96	120	130	120	...	110	100	96	...	...	...	...	...	...	12
13	...	...	...	...	...	...	120	120	84	120	136	120	...	110	96	96	100	...	...	...	...	...	13
14	...	124	...	...	...	...	108	108	...	120	124	120	...	...	84	100	100	...	...	...	...	...	14
15	...	120	...	...	...	...	108	88	...	120	108	108	...	110	96	108	100	...	...	...	...	...	15
16	130	112	84	...	...	120	84	90	...	120	100	96	...	96	96	96	124	...	...	...	...	...	16
17	120	64	48	...	...	...	70	...	...	120	...	100	...	...	96	96	100	...	...	...	...	...	17
18	120	56	...	...	120	120	...	76	...	120	72	96	...	80	100	96	108	...	...	...	...	...	18
19	80	60	...	...	120	60	...	...	...	120	...	...	76	116	96	96	108	...	...	...	...	...	19
20	...	54	...	...	60	60	...	78	...	120	...	96	96	100	96	100	...	...	...	...	...	...	20
21	...	...	...	120	...	...	...	...	...	108	...	...	78	108	84	96	108	...	...	...	...	...	21
22	...	...	...	84	...	...	...	...	...	96	...	92	96	100	...	...	108	...	...	...	...	...	22
23	...	...	...	60	...	...	...	...	...	96	...	92	...	100	...	...	108	...	...	...	...	...	23
24	...	...	...	60	...	...	...	...	...	96	...	...	96	100	...	76	...	...	...	...	...	...	24
25	...	...	...	...	...	...	...	...	...	96	...	...	96	100	...	...	...	...	...	...	...	...	25
26	...	...	...	...	...	...	...	...	...	...	...	...	108	100	...	96	...	...	...	...	...	...	26
27	...	...	...	...	...	...	...	...	...	Conv.	...	120*	96	90	...	...	140	...	...	...	...	...	27
28	...	...	...	...	...	...	...	...	...	...	...	120	108	108	...	84	96	...	...	...	...	...	28
29	...	...	...	...	...	...	...	...	...	...	...	130	108	...	...	...	120	...	...	...	...	...	29
30	...	...	...	...	...	...	...	...	...	...	...	120	108	110	...	...	90	...	...	...	...	...	30
31	...	...	...	...	...	...	...	...	...	...	...	120	150	...	...	...	...	...	...	...	...	...	31
32	...	...	...	...	...	...	...	...	...	...	...	90	...	96	...	...	...	...	...	...	...	...	32
33	...	...	...	120	...	...	...	...	...	...	...	80	...	...	...	...	...	...	...	...	...	...	33
34	...	...	...	100	...	...	...	...	...	...	...	72	...	...	...	...	...	...	...	...	...	...	34
35	...	...	...	104	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	35
36	...	...	...	60	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	36
37	...	...	...	60	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	37
38	...	...	...	60	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	38

* Erysipelas of Nose.

In scarlet fever, the pulse at the very outset of the disease attains its maximum rate of frequency, continues at the same rate for a certain number of days, and then gradually falls.

In relapsing fever, the pulse also attains its maximum rate of frequency from the first, beats at the same rate for a certain number of days, and then suddenly falls to its rate in health, or below that. Again, after a limited number of

(a) I speak only of the temperature as determined roughly by the hand. The results obtained by Traube and Zimmerman by the daily use of the thermometer, leads one to anticipate large advances in our knowledge from the more extensive employment of that instrument.

days have elapsed, it suddenly doubles the frequency of its beats, and then a second time, after a limited number of days, falls below the standard of health.

I may remark here, with reference to the very slow pulse observed after the first and second stages of relapsing fever, that the extremely infrequent pulse is due not to any slowness of contraction of the muscular substance of the heart, for the first sound is not lengthened, but to the duration of the pause,—that each beat of the heart appears to be normal, but the time that elapses between the beats is prolonged, *i.e.*, the pulse is really infrequent, not slow.

The reverse of this is true in reference to the length of the first sound of the heart, and the duration of the pause in some cases of slow pulse in cerebral disease.

Again, as to the ratio between the pulse and the respiration in these cases, the pulse being extremely infrequent, the respirations may preserve their ordinary frequency, fall very slightly, or be a little more frequent than in health. So that, instead of bearing to each other the ratio of 1 to 4, the pulse is often little more than twice as frequent as the respirations, and the two may be almost equal in frequency; thus I have seen the pulse during the stage of convalescence from relapsing fever 36 only, when the respirations were 30 in the minute, no heart, lung, or cerebral disease being present.

The influence of change of position, of muscular exertion, on the frequency of the pulse in these cases is illustrated by the following facts: the pulse being 48, the patient lying on his back, rose, on his assuming the erect position, to 116, the respiratory movements at the same time being scarcely more frequent than they were while the patient was in bed.

In typhus fever the pulse slowly rises in frequency to a certain point, preserves that rate of frequency for a variable period, and then as slowly falls. It is well here to remark, that whenever an increase more than may be accounted for by error in observation, *e. g.*, four or six beats in the minute in the frequency of the heart's beats occurs after the first fall in frequency in typhus fever, that increase is the precursor or accompanies the development of some complication. Thus, in the sixth case tabulated, erysipelas commenced with the rise in the pulse. A sudden fall in the rapidity of the heart's beats in typhus fever is occasionally the consequence of intracranial disease, *e. g.*, hæmorrhage into the cavity of the arachnoid.

In typhoid fever, the pulse rises and falls in frequency in a most irregular manner,—to-day 120, to-morrow 90, the next day 120,—and this apparently without any relation to the increase or decrease of the general or local affections,—without appreciable cause.

The different influence of free perspiration in diminishing the frequency of the pulse, in relapsing fever and in typhus fever, is illustrated by a comparison of this Table, which is copied from a Report on Continued Fever, by Dr. Flint, Professor of Medicine in Buffalo University, United States, and the above Table, compiled from my own observations in regard of the pulse in relapsing fever; for, in the cases there tabulated, the sudden fall in the pulse was preceded by profuse sweating:—

Influence of Perspiration on the Rate of Frequency of the Pulse in Typhus Fever.

No. of Cases.	Day before Perspiration.	Day of Perspiration.	Subsequent Day.
1	120	120 a.m. 116 p.m.	100
2	108	104	104
3	132	124	118
4	108	100	88
5	128	128	120
6	156	134	128
7	110	120	104
8	106	126	136
9	90	100	108
10	111	108	98

It is, then, manifest, that those general symptoms which the diseases of this class have in common, and the possession of which serves, in some measure, to prove their affinity, when closely examined, indicate their want of identity.

[To be continued.]

A COURSE OF LECTURES ON ORGANIC CHEMISTRY,

DELIVERED IN THE

Laboratory of the Royal Institution of Great Britain.

By DR. A. W. HOFMANN, F.R.S.,
Professor at the Royal College of Chemistry.

Lecture III.

Gentlemen,—Having in my last lecture fully described to you the process used in estimating the carbon and the hydrogen, I have now, in order to complete this sketch of organic analysis, to show you how we determine the nitrogen. I have already stated that nitrogen, unlike carbon and hydrogen, is in some cases estimated in the free state as nitrogen gas, the volume of which has to be accurately measured. This determination by volume was, in fact, the only one practised in the earlier stages of organic analysis. It was not until ten years ago that another process was introduced, which, had it been applicable in all cases, would have superseded the former method altogether. This process is founded upon the same principle as that which I pointed out in the determination of carbon and hydrogen; instead of estimating the nitrogen in the free state, this element is converted into a compound of salient properties, easily collected, and estimated by the balance; that is to say, the nitrogen is weighed in the form of ammonia. This new process, for which we are indebted to Messrs. Will and Varrentrapp, may be used in the majority of cases; there are only one or two classes of nitrogen-compounds which still require the determination of that element by volume. On account of its practical importance (being, in fact, by far the most frequently employed) we will consider the ammonia-process first, although it is the more recent one.

When organic substances containing nitrogen are heated with the hydrates of the fixed alkalies, for example of potassa or soda, the whole of the nitrogen assumes the form of ammonia, at the expense both of their own hydrogen and of that contained in the water of hydration of the alkali. The oxygen, both of the substance and of the water, combines with the carbon, converting it into carbonic acid. Sometimes ammonia and carbonic acid are the sole products generated in this process. Take, as an illustration, urea, the composition of which is represented by the formula

$$C_2\ H_4\ N_2\ O_2$$

It is obvious that the hydrogen contained in this substance is not sufficient to convert the whole of the nitrogen into ammonia. There are required for this purpose two additional hydrogen equivalents which are supplied by the water of the alkali with which we heat the urea; but we thus obtain also two additional equivalents of oxygen, which, together with the oxygen contained in urea, are sufficient to convert the whole of its carbon into carbonic acid.

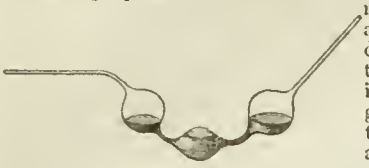
1 atom of urea	C_2	H_4	N_2	O_2		
2 atoms of water . . .		H_2		O_2	=	$2HO$
	C_2	H_6	N_2	O_4		
2 atoms of ammonia . .		H_6	N_2		=	$2NH_3$
2 atoms of carbonic acid .	C_2			O_4	=	$2CO_2$

But, before proceeding any further, allow me to show to you by experiment the disengagement of ammonia from a nitrogenous substance by the action of an alkali. Let us take urea, the very compound which I have quoted. For this purpose, a few crystals of this substance are rubbed together with soda-lime (a mixture of caustic soda and lime). I might have employed soda alone, but we prefer the addition of lime, which diminishes the fusibility of the pure alkali, and moderates, to a certain extent, the powerful energy with which the pure alkali corrodes the glass vessel used in the operation. The mixture is now introduced into a Florence flask, provided with a delivery-tube. As soon as heat is applied, torrents of ammonia are disengaged, which is readily recognised by its characteristic properties, viz., by imparting a brown colour to turmeric paper, by restoring the blue colour of reddened litmus, and by producing dense clouds of chloride of ammonium on coming in contact with hydrochloric acid vapour.

The decomposition of urea by the action of a hydrated alkali may be taken as a type of what happens in the case

of other nitrogenous substances of a more complex composition. If substances are very poor in oxygen, or very rich in hydrogen, it may occur that only a portion of the carbon is oxidised, while another portion combines with hydrogen, and is evolved, together with the ammonia, in the form of several of the varieties of hydrocarbons.

Of this behaviour of the great majority of azotised organic compounds, Messrs. Varrentrapp and Wills have availed themselves in order to determine the amount of nitrogen. For this purpose a weighed quantity of the compound is mixed with soda-lime, and carefully introduced into a combustion-tube, into which is then fitted a small glass apparatus, containing hydrochloric acid for the absorption of the ammonia generated. The form of this apparatus recalls that of Liebig's potash-bulbs. It is, in fact, the potash-bulb, only slightly modified for the occasion. The combustion-tube is now placed in a furnace perfectly similar to that used for carbon determinations, and gradually heated either by gas or charcoal.



The combustion being completed, the point of the tube is broken off, and a current of air sucked through it in order to collect the ammonia-vapour which may still linger in it. The whole of the nitrogen of the compound under examination is now present in these bulbs, in the form of ammonia combined with the hydrochloric acid.

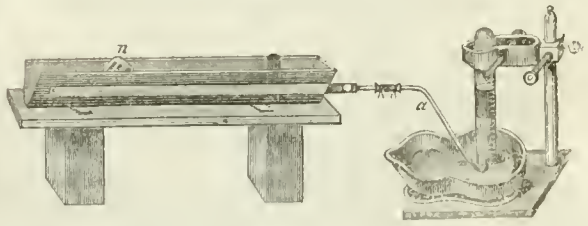
But how is the amount of this ammonia determined? At the first glance it might appear that the simplest plan would consist in ascertaining the increase by weight of the hydrochloric acid bulbs after the termination of the combustion, a mode of proceeding perfectly analogous to that which is followed in determining the carbon. This method, however, is inadmissible in the present case. A considerable quantity of carbonetted hydrogen passing constantly through the apparatus during the combustion, a portion both of the hydrochloric acid and of the water is carried off in the process. On the other hand, many of the hydrocarbons produced, although they are in the state of vapour at the temperature of their formation, become liquid, and even solid at the common temperature; they float upon the surface of the hydrochloric acid, and, of course, increase the weight of the apparatus. Hence, it is obvious, that its change of weight is due to a variety of causes; we must therefore adopt another plan instead of simply weighing.

The amount of ammonia in the hydrochloric acid may be determined by two processes, which I will briefly describe to you. In both it is necessary to pour out the liquid from the bulbs; and hence the necessity for their shape to differ slightly from that of the ordinary potash apparatus. We may now precipitate the ammonia from the liquid by means of bichloride of platinum, which, as you may know, forms a beautiful yellow crystalline compound with the chloride of ammonium; this salt is collected with the usual precautions, and weighed; from its weight and the known composition of the salt we calculate the percentage of nitrogen. A shorter mode of proceeding consists in using a standard solution of hydrochloric acid for the neutralization of the ammonia, *i.e.*, a solution, the concentration of which has been accurately determined by experiment. We have, moreover, prepared a standard solution of soda, and carefully ascertained how much of the latter is necessary to neutralise a given volume of the former. Suppose we employ a cubic inch of the standard acid for the absorption of the ammonia, and we know that 100 measures of our standard alkali are necessary to neutralise this cubic inch before combustion,—suppose we find that after the combustion, *i. e.*, when the acid has absorbed the ammonia, that the acid thus partially neutralised requires for saturation only 50 measures, it is evident that we have all the data for calculating the amount of ammonia, and from this the amount of nitrogen in the original substance.

The estimation of nitrogen in the form of ammonia is, as you see, very easy and expeditious; and, whenever this method is applicable in the analysis of an azotised body, it is invariably employed in preference to any other. There is, however, a number of compounds containing the nitrogen in the form of an oxide, as nitrous, or hyponitric, or even nitric acid, which cannot be analysed by the ammonia-process, inasmuch as only part of their nitrogen is convertible into ammonia by fusion with soda-lime. Again, a series of nitrogenous carbon-compounds, which are very analogous to ammonia, (the compounds known by the name of alkaloids,) yield their nitrogen with considerable difficulty in this manner. In analysing substances of this kind, we have to adopt another plan: many methods have been devised for this purpose, which all consist in collecting the nitrogen as such, and measuring its volume. I confine myself to showing you the one which has been first used by Dumas, and which, with the exception of the ammonia-process, is perhaps more frequently employed than any other.

If nitrogenous substances are burned with black oxide of copper, carbon and hydrogen, as we have seen, are oxidised, but their nitrogen escapes uncombined. Small quantities only unite occasionally with oxygen, forming binoxide of nitrogen, or nitrous acid; these compounds, however, may be readily destroyed again by placing a layer of bright copper turnings in the anterior part of the combustion-tube. The copper, at a high temperature, unites with the oxygen, and releases the small quantity of nitrogen which may have combined with it. In order to measure correctly the volume of nitrogen generated during the combustion of an azotised body, it is, as you at once perceive, absolutely necessary to expel in the first instance every trace of atmospheric air from the apparatus in which such a determination is to be made. For this purpose, immediately after the mixture of oxide of copper with the weighed amount of substance to be analysed, and the copper turnings are introduced into the tube, a stream of carbonic acid is passed through it, until the whole of the air is swept out and replaced by carbonic acid; this carbonic acid is often liberated by heating bicarbonate of soda which has been placed in the posterior portion of the tube, but more frequently a large two-necked bottle is employed, in which the carbonic acid is disengaged from carbonate of lime and hydrochloric acid. As soon as we have ascertained that the gas which issues from the delivery-tube in front is entirely free from atmospheric air, we may commence the operation.

But let me first show to you how this absence of atmospheric air is ascertained experimentally. For this purpose a long cylinder is filled over mercury with the gas issuing from the delivery-tube, and then immersed in a solution of potassa. If the gas is perfectly absorbed, we conclude that every trace of atmospheric air has been expelled from the apparatus. A graduated bell is now half filled with mercury, and half with a concentrated solution of potassa; it is then covered with a ground glass plate, and inverted over mercury, in order to collect the gases generated during the combustion, which is performed exactly as if it were intended to estimate the carbon. The whole of the carbonic



acid is absorbed by the potassa; the volume of gas affected by this liquid consists of nitrogen. The combustion being terminated, we have now only to sweep out the nitrogen which still lingers in the tube. This may be again accomplished by a current of carbonic acid. The volume of nitrogen which is thus obtained is left for some time in contact with the alkali, in order that every trace of carbonic acid may be absorbed; and it is then transferred into a tall glass cylinder filled with water, and accurately measured, by rendering the liquid inside and outside perfectly level. The barometer and thermometer having been simultaneously

observed, it now remains only to correct the volume for temperature and pressure, in order to deduce from it the weight of the nitrogen and its percentage in the compound analysed.

This short sketch of organic analysis has, I hope, familiarised you with the more important processes for determining the composition of organic substances which are used in the laboratory. I must now invite you to follow me for a moment to the writing desk, at which the chemist calculates the results of his experiments. Let us open his note-book, and inspect the actual numbers obtained in the analysis of two or three substances.

You will be surprised to see by how simple a series of calculations he converts the immediate results of analysis into percentage numbers, and lastly into formulæ. The combustion of benzoic acid has furnished the following data, which the diagram exhibits to you in exactly the form in which they are noted in his laboratory memorandum-book:—

Weight of benzoic acid burned—5 grains.

	grains.
Weight of potash bulbs after combustion . .	732·57
,, ,, before ,, . .	720·00
Carbonic acid produced . . .	12·57
Chloride of calcium tube, after combustion .	232·25
,, ,, before ,, . .	230·00
Water produced	2·25

The composition both of water and carbonic acid are very accurately known. The combining number of carbonic acid = 22 contains 6 of carbon. The combining number of water = 9 contains 1 of hydrogen.

The following proportions give us the amount of carbon and of hydrogen in 5 grains of benzoic acid:—

Grains of Carbon.

$$22 : 6 = 12{\cdot}57 : x;\ x = \frac{6 \times 12{\cdot}57}{22} = 3{\cdot}43$$

Grains of Hydrogen.

$$9 : 1 = 2{\cdot}25 : x;\ x = \frac{1 \times 2{\cdot}25}{9} = 0{\cdot}25$$

But it is more convenient to know the quantities of carbon and hydrogen in 100 parts of the substance. These we obtain by multiplying the above numbers by 100, and dividing by 5, for we have the proportions:—

Per Cent. Carb.

$$5 : 3{\cdot}43 = 100 : y;\ y = \frac{3{\cdot}43 \times 100}{5} = 68{\cdot}6$$

Per. Cent. Hyd.

$$5 : 0{\cdot}25 = 100 : y;\ y = \frac{0{\cdot}25 \times 100}{5} = 5$$

The per centage of oxygen is equal to 100 minus the percentages of carbon and hydrogen $100 - (68{\cdot}6 + 5) = 26{\cdot}4$.

In a similar manner, the combustion of the volatile alkaloid aniline has furnished the following results:—

Weight of aniline burnt	3·5 grains.
,, carbonic acid produced	9·91 ,,
,, water	2·39 ,,

From these data, the following numbers are deduced in exactly the same manner as before:—

9·91 grains of carbonic acid correspond to 2·702 grains of carbon = 77·2 per cent. of carbon.

2.39 grains of water correspond to 0·265 grains of hydrogen = 7·57 per cent. of hydrogen.

Aniline is a nitrogenous substance; it is evident that, by deducting from 100 the joint percentage of carbon and hydrogen, we obtain a number representing the nitrogen and oxygen, *i.e.*, aniline contains $100 - (77{\cdot}2 + 7{\cdot}53) = 15{\cdot}27$ per cent. of nitrogen and oxygen. Aniline is one of those substances which are decomposed with great difficulty by soda-lime; hence the nitrogen had to be determined by volume.

The combustion of 10·5 grains of this compound furnished a volume of gas = 5·07 cubic inches, at the normal pressure of 30 inches, (more accurately 29·92,) and the normal temperature, *i.e.*, at the freezing point of water. According to the latest researches of Regnault, 100 cubic inches of nitrogen, at the temperature and pressure I have stated, weigh 31·66 (or, more accurately, 31·6602 grains); hence the weight of 5·07 cubic inches is given by the proportion—

$$100 : 31{\cdot}66 = 5{\cdot}07 : x;\ x = \frac{31{\cdot}66 \times 5{\cdot}07}{100} = 1{\cdot}605$$

and the percentage of nitrogen in aniline by

$$10{\cdot}5 : 1{\cdot}605 = 100 : y;\ y = \frac{1{\cdot}605 \times 100}{10{\cdot}5} = 15{\cdot}28$$

From this result, it is evident that aniline cannot contain any oxygen, since the percentage of nitrogen is almost exactly the complement of the joint percentage of the carbon and hydrogen, which, as we have seen, was $77{\cdot}2 + 7{\cdot}54 = 84{\cdot}74$.

For reasons, which will be obvious to you immediately, I quote, as a last example, the analysis of a substance containing carbon and hydrogen only. I select Mr. Faraday's bicarbide of hydrogen, the substance which is now more generally known by the name *benzol*.

3·2 grains of benzol, when burnt, gave
10·82 grains of carbonic acid = 2·95 grains of carbon.
2·25 ,, water = 0·25 ,, hydrogen.
The corresponding percentages are—
Carbon . 92·18 Hydrogen . 7·81

Analysis has thus led us to the composition in 100 parts of benzoic acid, of aniline, and of benzol—

	Benzoic Acid.	Aniline.	Benzol.
Carbon . . .	68·6	77·20	92·18
Hydrogen . .	5·0	7·57	7·81
Oxygen . . .	26·4	....	....
Nitrogen . . .	....	15·28	....
	100·0	100·05	99·99

Let us now consider how these percentage numbers may be translated into formulæ representing the atomic constitution of the substances in question. In the first place, in order to find the relative proportions of carbon, hydrogen, and oxygen atoms in benzoic acid, we have to recollect the atomic weight of these three elements, which are respectively 6, 1, and 8. It is obvious that the number of carbon atoms is given by the proportion

$$6 : 1 = 68{\cdot}6 : x;\ x = \frac{1 \times 68{\cdot}6}{6} = 11{\cdot}43$$

In a similar manner we obtain for hydrogen

$$1 : 1 = 5 : y;\ y = \frac{1 \times 5}{1} = 5{\cdot}$$

And for oxygen

$$8 : 1 = 26{\cdot}4 : z;\ z = \frac{1 \times 26{\cdot}4}{8} = 3{\cdot}3$$

or, in other words, we find the relative proportions of the carbon, hydrogen, and oxygen atoms in a compound, by dividing the percentages furnished in analysis by the respective atomic numbers. If the results of analysis were absolutely correct, the quotients in question would represent the exact atomic relations of the elements.

Accordingly, benzoic acid would consist of

11·43	atoms of	Carbon,
5·00	,, ,,	Hydrogen, and
3·3	,, ,,	Oxygen.

Or, in round numbers, of

114	,, ,,	Carbon.
50	,, ,,	Hydrogen.
33	,, ,,	Oxygen.

It is obvious that the ratio of these numbers is very complicated. We know by experience that the composition of organic compounds, although generally less simple than that of mineral bodies, nevertheless but rarely exhibits relations of such intricacy. We recollect, moreover, that the results of analysis, so far from being exact, are always affected by errors unavoidable in the most careful experiments; we, therefore, endeavour to reduce these numbers to a more simple relation.

The number of oxygen atoms being evidently smallest in benzoic acid, we will seek how many carbon atoms and how many hydrogen atoms this compound contains for each

atom of oxygen. For this purpose we divide the above numbers by 33, and we now obtain

Number of Carbon atoms . . $\frac{114}{33} = 3{\cdot}45$

,, ,, Hydrogen atoms . $\frac{50}{33} = 1{\cdot}5$

,, ,, Oxygen atoms . . $\frac{33}{33} = 1$

These quotients are as near as possible as 3·5 : 1·5 : 1 ; or, in entire numbers, as 7 : 3 : 2 ; *i. e.*, in benzoic acid we have for every 7 atoms of carbon, 3 atoms of hydrogen, and 2 atoms of oxygen, and the formula

$$C_7 \quad H_3 \quad O_2$$

accordingly would be the simplest atomic expression for benzoic acid. Let us now see how near the theoretical percentages of carbon, hydrogen, and oxygen, calculated from this formula, agree with those obtained by combustion.

7 atoms of carbon	=	7 × 6	=	42
3 ,, hydrogen	=	3 × 1	=	3
2 ,, oxygen	=	2 × 8	=	16
1 atom of benzoic acid			=	61

$61 : 42 = 100 : x \; ; \; x = \frac{42 \times 100}{61} = 68{\cdot}85$ p. c. carbon

$61 : 3 = 100 : y \; ; \; y = \frac{3 \times 100}{61} = 4{\cdot}91$,, hydrogen

$61 : 16 = 100 : z \; ; \; z = \frac{16 \times 100}{61} = 26{\cdot}22$,, oxygen

Composition of Benzoic Acid.

	Theory.	Experiment.
Carbon	68·85	68·6
Hydrogen	4·91	5·0
Oxygen	26·24	26·4
	100·00	100·00

You observe that the experimental and theoretical numbers closely agree ; the experimental number for carbon is somewhat lower, that of hydrogen somewhat higher than the numbers deduced from theory ; but I have pointed out to you that the ordinary mode of combustion generally involves a slight deficiency of carbon, whilst it furnishes a small excess of hydrogen.

I have explained to you at some length the derivation of the atomic expression from the mere percentage result of an analysis; because, without a perfect acquaintance with this proceeding, it is impossible to obtain a clear conception of the meaning of a chemical formula.

A few minutes will now suffice similarly to translate the other two analyses which I have quoted, namely, those of aniline and benzol.

By dividing the percentages of carbon, hydrogen, and nitrogen by the respective atomic weights, we obtain the following quotients :—

Carbon $\frac{77{\cdot}20}{6} = 12{\cdot}86$ or 1286

Hydrogen $\frac{7{\cdot}57}{1} = 7{\cdot}57$ or 757

Nitrogen $\frac{15{\cdot}28}{14} = 1{\cdot}08$ or 108

And if we calculate for 1 atom of nitrogen, (the element of which the smallest number of atoms is present) by dividing the three quotients by 108, we arrive at

Carbon $\frac{1286}{108} = 11{\cdot}90$

Hydrogen $\frac{754}{108} = 7{\cdot}00$

Nitrogen $\frac{108}{108} = 1{\cdot}00$

from which the simplest atomic expression for aniline,

$$C_{12} \quad H_7 \quad N,$$

is at once evident; the theoretical percentages of this substance, when compared with those obtained by analysis, are as follow :—

Composition of Aniline.

	Theory.	Experiment.
12 atoms of carbon	72	77·42	77·20
7 ,, hydrogen	7	7·53	7·57
1 ,, nitrogen	14	15·05	15·28
	93	100·00	100·05

The percentage lastly of benzol was :—

Carbon . . . . . 92·18

Hydrogen . . . . . 7·81

The ratio of the carbon and hydrogen atoms is given in the quotients :—

Carbon $\frac{92{\cdot}18}{6} = 15{\cdot}36$

Hydrogen $\frac{7{\cdot}81}{1} = 7{\cdot}81$

Without further calculation we see at once that these numbers are closely as 2 : 1, and that the simplest atomic expression or ratio for this substance is the formula

$$C_2 \; H,$$

whence the original name of bicarburet (bicarbide) of hydrogen, proposed by Mr. Faraday. The theoretical numbers of this formula, moreover, sufficiently agree with the results of combustion, as will be seen from the following comparison :—

Composition of Benzol.

	Theory.	Experiment.
2 atoms of carbon	12	92·31	92·18
1 atom of hydrogen	1	7·69	7·81
	13	100·00	99·99

The formulæ which I have developed to you are the simplest atomic expressions in entire numbers which can be framed for the substances in question ; they are not, however, always those which are generally adopted. A variety of considerations frequently induces chemists to assume multiples of these formulæ as more appropriately representing the constitution of these bodies. In the next lecture I intend to bring before you some of these considerations, and to show you their influence upon the notation of organic substances.

ORIGINAL COMMUNICATIONS.

OBSERVATIONS ON A RECENTLY-PUBLISHED WORK, ENTITLED "THE FEVER AT BOA VISTA, UNCONNECTED WITH THE VISIT OF THE ECLAIR TO THAT ISLAND,"

BY GILBERT KING, M.D., INSPECTOR OF HOSPITALS AND FLEETS.

By J. O. M'WILLIAM, M.D., F.R.S., R.N.
Medical Inspector H.M. Customs.

[Continued from p. 113.]

Before proceeding to Anna Gallinha, the next link in the chain at Porto Sal Rey, it is desirable to ask one or two questions. Dr. King, in his recent work, p. 99, says :—"I certainly examined a few more of the soldiers than Miguel Barbosa." How many more? Why not examine them all? Were those that were examined interrogated by Dr. King himself, or was this part of the duty performed by deputy? These inquiries, as I shall soon show, are not made without reason. At p. 30 of Dr. King's recent publication, he says: —"The only authority for the dates of the attack and death of Anna Gallinha, is the oral testimony of John Jamieson." "That date," says Dr. King, "is assumed as a positive fact, and becomes the basis on which the Doctor has constructed the elaborate but artificial hypothesis which has been so much admired," etc. My words are, ("Dr. M'William's Report," p. 85) :—"It is not easy to ascertain dates with precision, but it is probable that this woman was taken ill on the 12th, and died on the 16th, of October." This statement was not made without very minute and careful inquiry on the spot, of the most intelligent people, including John Jamieson, who were on the

island while I was there. And I may add, that the information thus obtained afterwards derived ample corroboration from several English persons of the highest rank who were in the island at the time of Anna Gallinha's death. Of all who contributed to this further evidence, no one went wider of my dates than three days, and even that deviation occurred in one case only. The rest were for the dates as stated by me, constituting, surely, corroboration as complete as, in a case of this kind, can ever be expected. All those persons, save one, are alive, and can, if necessary, answer for themselves; from the other I fortunately have a document in my possession in proof of what I have stated.

But I must summon another witness in corroboration of the accuracy of my dates, *and that is Dr. King himself.* At p. 6 of his "Report," he says:—"Anna Gallinha, *(who was attacked on the 12th, and died on the 16th, of October,)* was, I believe, the first who died from fever in the island of Boa Vista."

A statement like this, in a public document, certainly has every appearance of having been made with assurance and precision. It was either made upon good authority, or it was not. If the authority were doubtful, or not entitled to reliance, then Dr. King was culpable in entertaining it at all. He has brought forward no reason why it is not equally worthy of being received now as it was then. And surely, when he wrote it, he intended it to be believed. It is true he now apparently wishes to revoke the sentence altogether; but, in a case of this kind, Dr. King must not even be allowed to contradict himself without some show of reason, and he has shown none; save, indeed, now that he sees the rather ignominious failure of his own "Report," a very manifest desire, at all hazards, to consign mine to the same fate.

Before leaving Porto Sal Rey, I feel called upon again to advert to a subject which was very reluctantly alluded to by me in my "Observations on the Second Quarantine Report of the Board of Health," namely, Dr. King's method of investigation at this important district. I stated, (p. 22, Observations, &c.,) "As respects Porto Sal Rey, the mode in which Dr. King obtained his evidence there was chiefly, if not wholly, thus:—His list of queries was written down, and John Jamieson, the Consul's storekeeper, alone went the round of the houses, getting answers to those queries in the best manner he could, and then brought them to Dr. King, who transcribed them, thus obtained, into his own journal or note-book."

To this Dr. King has, in his recent work (p. 101), thus replied:—"It is quite correct: the information was obtained in that manner, and transcribed into my journal," etc. Dr. King goes on to explain (p. 101), it "occurred to me that it might be useful were I to visit every house in Porto Sal Rey."(a) He accordingly resolved, first, to send John Jamieson round the houses as a pioneer. But it eventually turned out that John Jamieson became a much more important functionary than Dr. King had at first intended. As the queries "were only completed and fully transcribed on the evening" before Dr. King left the island, he did not go the round of the houses himself. Jamieson's document, therefore, forms the only investigation concerning Porto Sal Rey in Dr. King's possession. As if to leave the matter beyond all doubt, Dr. King adds, (p. 102 of his recent work,) "Supposing I had visited the houses myself, what advantage could have accrued from it?" Possibly none: but I have always understood that it was required of medical men, when employed in the investigation of epidemic diseases, minutely to examine *in person* the localities where such diseases had prevailed, instead of delegating that important part of the duty to persons ignorant of medicine and the correct method of medical inquiry.

It was surely incumbent upon him to visit the celebrated "Beira Row," where the sickness first broke out in Porto Sal Rey, where Anna Gallinha, and Lisboa, the writer, died. He might have found by careful interrogation of Senhor Carvahal, a most intelligent man, (Judge of Porto Sal Rey,) that Lisboa, who lived in the Beira Row, did not, as stated by Dr. King, (p. 28 of his recent work,) upon the authority of his deputy, take ill and die in November, but that he was dead before the end of October. (See Senhor Carvahal's examination, Dr. M'William's "Report," p. 31.)

(a) Dr. King's excuse for not going the round of the houses is his ignorance of the Portuguese language; and he takes the unwarrantable liberty to class me with himself in respect to this ignorance. I will only observe, that this is another of the many assumptions of Dr. King, made without grounds.

It is, however, but justice to John Jamieson to state that in my opinion the scale of questions which Dr. King gave him were wholly inadequate to obtain the particulars of the case. Moreover, Dr. King may have committed the mistake as to time in transcribing the result of Jamieson's labours to his note-book or journal.

Dr. King's mode of inquiry was, of course, in his own estimation, the best that could be adopted. But it does occur to me, that the Profession and the public in this country would not have attached the confidence they did to the report of the accomplished physician who, in 1848, was employed by the General Board of Health to investigate the first cases of cholera that occurred at that time in London, had he, instead of visiting the localities where the disease prevailed, dispatched his butler with written queries to get answered as he might, and drawn out his Report from the results thus obtained!

Dr. King states that I have "invested the case of Luis Pathi, at Rabil, with great importance." It is quite true that I have done so, and, were corroborative proof wanting of the claim of this case to unusual attention, it might be found in the fact of Dr. King having considered it necessary to be present in person at the examination of Pathi.

Dr. King, in his "Report," laid the chief argument against contagion in Pathi's case on the fact, that "he had yet to learn when and where the man was within the sphere of its influence."

Now that it cannot be doubted that Pathi was so exposed, Dr. King seizes, with the eagerness which dearth of argument produces, the fact of my having, in my "Remarks," insisted upon Pathi's exposure to contagion from being on board at the time the sick were re-embarked; while in my "Report" I merely stated, in addition to the circumstances of his having been employed in the lower deck of the Eclair, and of the strong suspicions of his having a coverlet from the Eclair in his possession, that he was on board, as well as many others, at the period in question.

That I should dwell upon any one cause more at one time than at another, surely cannot alter the facts of the case, although it may present a very tempting ground for cavil to one who has nothing else to argue upon.

That Pathi was exposed to sources of contagion, both directly and indirectly, is not to be denied.

Dr. King is very indignant that I should mention even the suspicion that Pathi had some article of bedding from the Eclair in his possession: he, however, does not hesitate to accuse the whole population of exaggeration and falsehood, for the purpose of extorting compensation from the British Government.

In all communities, there are some designing characters, and Dr. King took the very means to bring such people about him, if not, indeed, to produce such characters. He felt necessitated to hold out a pecuniary inducement to the people to give evidence. I never found anything of this kind at all necessary. The people came to me without any entreaty, and, whether they did or not, I very soon went to them, and with them examined and inspected, from house to house, all over the island. The case given by Dr. King (p. 49) proves only that the attempt at imposition was practised upon himself, not upon me. Pedro Ascensao did not attempt to tell me he had had fever in 1845; he, however, told Dr. King that he was attacked in October of that year. I held out no inducement for exaggeration or misrepresentation. Dr. King, unintentionally, but unfortunately, did hold out such an inducement; and the result was, as might have been expected, even in places more enlightened than Boa Vista.(a) Hence the alleged constant repetition of the symptoms of

(a) In my observations on the "Second Report on Quarantine, by the General Board of Health," I felt called upon to defend the people of Boa Vista from the accusations unfairly brought against them in that "Report." Possibly, my defence of these people constitutes what Dr. King, in his peculiarly elegant and courteous phraseology, designates "maudlin sentimentalism." His words are:—"The testimony of incompetent and interested witnesses has been accredited, and, to heighten the effect, their evidence has occasionally been *tricked* out in a disguise of maudlin sentimentalism."—Dr. King's recent Work, p. 4.

Dr. King was about *six weeks* on the island, and he had very little opportunity of knowing much of the people. The following testimony to their general character, by an accomplished English lady, who was *several years* at Boa Vista, is to be found in a pamphlet just published:—

"They are a simple, gentle race, very susceptible of kindness, skilled in all the arts of peasant life, very apt in acquiring knowledge, as she had many opportunities of observing in a school which she collected and taught among them, and, according to their measure of instruction, unaffectedly influenced by religious feeling."—"Slavery Past and Present," by a Lady, pp. 15, 16.

"black vomit" among those interrogated by Dr. King may be explained.

My "Report" rests not solely upon the evidence obtained from "the poor, uneducated, and neglected beings" of Boa Vista. I had the further privilege and advantage of either seeing or corresponding with nearly every European of importance who was in the island when the Eclair arrived. The main facts of my "Report" have been corroborated by several of them, and the conclusions it contains have received the unqualified assent of all. Dr. King seems to have been less fortunate in his means of acquiring information; but he certainly astonishes me when he says in his recent work, that "he had not the honour of knowing Senhor Carvahal," who certainly was at Porto Sal Rey while Dr. King was there. Senhor Carvahal was the Judge of Porto Sal Rey; he spoke English fluently; he was a traveller, and had seen, and experienced in his own person, yellow fever at San Domingo, in the West Indies; he was, moreover, a most communicable and intelligent man. I can assure Dr. King, that the Judge of Porto Sal Rey was a very superior person to the Judge of "Fundo das Figueiras;" and as he rested satisfied with the account of the fever in the Eastern villages as given by the latter alone, he might, with equal propriety and much greater advantage, have interrogated the former as to the outbreak at Porto Sal Rey.

Had Dr. King taken the trouble to extend his means of ascertaining facts, either by seeing or corresponding with the many intelligent Europeans who were on the island at the period in question, we should have heard less of his wonders and doubts regarding "the real grounds which influenced the doctors in their decision" as to the real nature of the disease, and the period at which it was "declared to be infectious."

He might also have understood how what he calls the "social revolution that took place in Porto Sal Rey" was brought about, and that the Governor-General and others were perfectly aware of the extent if not of the nature of the disease, before they left the island.(a) He would further have been assured, that Mr. Macaulay, Mr. Pettingall, and others, *did* leave the island by reason of "sickness among the inhabitants;" and that Mr. Pettingall's object in going to San Nicolao was *not*, as Dr. King surmises, "to make arrangements for the expected marriage of his daughter with Mr. Miller," as Mr. Miller at the period in question was in England. (See Dr. King's *doubts* on these points, in his recent work, pp. 21, 22.)

Even John Jamieson does not escape from the general and wholesale accusation of fraudulent intention which Dr. King brings against the people. He is represented as exaggerating the state of sickness on the island to Dr. King before he landed. At Rabil, he is said to have been "quite as decided a contagionist as Dr. M'William, and just as anxious to make converts to his opinion; and that he endeavoured to place the case" of Luis Pathi before Dr. King "in a light different from the truth."

While I utterly disbelieve any dishonesty in John Jamieson, I would ask, in the name of all that is consistent and proper, even supposing Dr. King's accusations against Jamieson to be well founded, how was it that Dr. King *afterwards* employed a person whom he had discovered exaggerating and tampering with important evidence, in the exclusive investigation of the facts relating to the outbreak and general history of the fever in Porto Sal Rey. It is not safe for Dr. King to endeavour thus to inculpate Jamieson.

I maintain that my account of the outbreak at Rabil is the correct one; and, in proof, appeal to the evidence of Luis Pathi, and to the evidence of others, in my Report. With regard to Dr. King's examination of Luis Pathi, it is much to be regretted that it is not published; more especially as few can claim the power which he possesses, namely, that of knowing what is passing at the distance of nearly 2000 miles; for, at p. 43, he says, "Luis Pathi is asked, (by Dr. M'William,) *in the most bland and insinuating manner*, and with a heart no doubt overflowing with benevolence, 'Did you not take some small article of clothing which you got on board the Eclair with you to Rabil?'"(a)

Although Dr. King has not given us an opportunity of knowing how he shaped his questions to Pathi, or what were the precise answers returned, he has not only given the words of my question regarding the coverlet, but the manner in which it was put.

It is not easy to understand how Dr. King came to this knowledge, but it is sometimes observed that individuals to whom nature has been stinted in the allotment of the faculties in general are gifted with an unusual development of some faculty in particular. Is it upon some such principle of compensation as this that Dr. King has been endowed with the marvellous property of "clairvoyance"?

Dr. King's essay at topographical description in no way improves his case at Rabil. A reference to the map will show that Moradinha must still remain in the ravine, and Cabecada and Boaventura must continue high above the ravine, just as I placed them. "Chao de Luz," or, as Dr. King calls it, "Chain de Losna," is simply a small row of houses in Boaventura.(b)

At "Estacia de Baixo" and "Moradina," Dr. King makes a feeble effort to render my statements inconsistent with each other. At page 90 Dr. M'William's Report it is stated, with reference to "Estacia de Baixo," that a "great proportion of the people in the village had attacks of various degrees of intensity;" and at p. 91 Dr. W'William's Report it is said that *three deaths took place at Moradinha*, "*in a population of* 101 *persons*, about half of whom were said to have been attacked with fever." Again, at p. 106 Dr. M'William's Report, the following passage occurs: "Moradinha, which is situated in the Rabil ravine, and Estacia de Baixo, which overlooks it, (both of which places have come in for a great share of remittent fever at any time that disease was prevalent,) were in a most unaccountable degree exempt from fever during the late epidemic."

Dr. King is heartily welcome to all the benefit his case can derive from the alleged *inconsistency* of these statements.

At page 12 of my "Remarks" I state: "When fever was raging at Rabil, high above the ravine, there were only two persons at all sick in 'Moradinha,' which lies almost in its bed." Again: "Estacia de Baixo, which, all the year round, overlooks, and is nearer to the site of the swamps in the lower end of the ravine than any other part of the island, suffered least of all from fever, for, in a population of 256 persons, only three deaths took place, while the average mortality was one in 154."

The degree of exemption, then, was intended to apply to the small mortality of these localities, theoretically the most unhealthy, compared with that of the other localities, which, theoretically, ought to have been healthy, on the assumption that the fever was of miasmatic or indigenous origin.

But my statements are perfectly reconcilable after the most careful, and even malignant, sifting of the language in which they are expressed. At unhealthy "Moradinha," *one half of the inhabitants were attacked, whereas, on the island generally, two-thirds at least were attacked.* And this number was considered by the Europeans rather below than above the actual number attacked.

The eastern villages, "Cabèca dos Tharafes," "Fundo das Figueiras," and "Joao Gallego," form a very important district as regards the fever of Boa Vista.

In my "Report" I stated that the fever was introduced at the end of October into Cabeca dos Tharafes (the first of the three villages attacked) by the daughter of Captain Aniceto, who came from Porto Sal Rey, where she had been living in the house of Antonio Joaquim Lima.

Dr. King did not question this channel of introduction in his Report, nor does he challenge it in his recent work, further than stating that there was no fever in Lima's house until November. Where did he get this information? Was it obtained by deputy? And, if so, did he mistake in tran-

(a) His Excellency, in a letter to Dr. King, which did not reach its destination, after alluding to the delicate health of his wife, says:—
"I believe the attack was produced by the continued frights and anguishes that she endured during the long stay that we made at Boa Vista, in the presence of the terrible fever, seeing so many victims fall around ourselves, and expecting every moment that our own lives would be ingloriously lost."

(a) Dr. King wishes to make it appear (p. 44 of his recent work) that Pathi was not carried home from Moradinha. Let me refer my readers to the evidence of Pathi himself; to that of Manoel da Silva Marques, *who assisted to carry him;* and to that of José Marques, who states, that Pathi was *brought home.*—Dr. M'William's Report, p. 42.

(b) It is to be regretted that Dr. King, before giving in his Report, did not get some one acquainted with the Portuguese language to see to the orthography of the names of places and persons. A Portuguese will hardly recognise in his own language many of the names in the list appended to Dr. King's Report, p. 15,—such as "Des Doas de Nash," "Miguel Jing Jong," etc., etc. Certainly no persons with such names were ever employed about the Eclair.

scribing the results of John Jamieson's investigation? Seeing that the importation of the disease into the village is not disputed, it may be matter of little importance, but careful inquiry would have told Dr. King that there was fever in Lima's house before November, although Lima himself was not attacked until this period, and that "Theresa Maria Jesus," who was attacked shortly after Anna Gallinha died, was the mistress of Lima.

But why should I condescend to say more regarding these villages. Important as they were, and requiring of me, as their investigation did, repeated visits and minute examination, Dr. King was once only in the district; and, as regards "Cabeca dos Tharafes," the most important by far of the three, Dr. King did not once enter it.

But his reasons for not proceeding to this village must be told by himself. In reply to my statement, to the effect, that I had good reason to believe Dr. King did not once enter this village, he says in his recent work, p. 101, "Why should I have done so? I got all the information that was to be obtained from the chief person of the district, the judge at 'Fundo das Figueiras.' Cabeca dos Tharafes certainly contained seventy-three huts, but at that time there was not one sick person in the village."

Dr. King's reasons are certainly original in their way. At Porto Sal Rey, he told us that there could be no advantage in his visiting the houses himself, as he "must necessarily have had John Jamieson with him as interpreter; and it would have rested solely with him to repeat or contradict the facts he had supplied on the preceding day." As regards Cabeca dos Tharafes, it is not easy to understand how Dr. King, who examined the judge only, could assure himself that he (the judge) "possessed *all the information* that was to be obtained." That the judge's evidence was either correct, or all that was to be procured, are points that could only be fully determined by a comparison with the evidence of others.

Surely it would have been better had Dr. King gone into "Cabeca dos Tharafes," if for no other purpose than to confirm the testimony of the Judge by that of others procured on the spot.

With regard to the other reason, that there were no sick persons in the village at that time, Dr. King's mission was quite as much to inquire into the past, as it was into any existing epidemic; and if he had acted upon this reason on every occasion, why he ought not to have entered upon any inquiry at Boa Vista at all; for, on his arrival at the island, he only found "one person (a slave) ill at Porto Sal Rey;" and "in a few days every other part of the island equally healthy." Dr. King seems to have preferred, what he may very properly call the "short-read system," as the "judge" at Fundo das Figueiras" appears to have stood sponsor for the whole three villages.—(Dr. King's recent work, pp. 90, 91.)

Let us for a moment suppose (what is by no means improbable,) that Dr. King is requested by the "General Board of Health" to investigate an outbreak of cholera in the celebrated district of Jacob's Island, Bermondsey. What will the Board, what will the Profession say to him, if, instead of proceeding to the district itself, he shall see fit to stop short on the north side of London-bridge, and, having interrogated some "judge" in the City, shall proceed to draw out a Report upon the information obtained from this single source?

Dr. King, for reasons best known to himself, has not seen fit to advance beyond the mere threshold of the outbreak of the fever in July, 1846; but what he has stated is full of error; and this is the more to be wondered at and regretted, seeing that, to obtain most accurate information he had no necessity to employ an interpreter, to send out queries on paper, or even to leave his lodging; for, as he tells us, the person first attacked was John Jamieson, who lived in the same house (the Consulate) with Dr. King.

Dr. King's account of this re-appearance of the fever is as follows:—"There was this remarkable coincidence, that after an INTERVAL OF SOME MONTHS, and the disappearance of the disease, both in man and beast, the same fever broke out again in the towns and villages ABOUT THE RAINY SEASON in the following year." (Dr. King's Report, page 9.)

In his recent work, Dr. King scarcely ventures a step further. He, indeed, as I have already said, mentions the name of the person first attacked—"John Jamieson."

Dr. King even seems to take some credit to himself for going so far as to mention the name of the first sufferer. He says, "I shall supply the omission; it was John Jamieson," etc.

I would ask, why did Dr. King not give a full account of this most interesting outbreak of the fever? It occurred, as I have elsewhere said, in a person well supplied with the necessaries of life, in a large, well-ventilated house; and although not, as Dr. King states, "*after an interval of months, and the disappearance of the disease both in man and beast*," still there was an appreciable lapse of time between the cessation of the cases at Moradinha, and the attack of Jamieson. The investigation surely belonged to Dr. King rather than to me, as the occurrence took place *after* I left the island, but *before* Dr. King reached it. His instructions specially state, that besides the fever following the visit of the Eclair, he is to investigate "also any *previous* or *subsequent* epidemic or fever which may have appeared at Boa Vista." (Dr. King's recent work, p. 106.) He has, however, declined the task, and I thus feel called upon to state the facts as briefly as I can consistently with their fair exposition.

In my "Report," (pp. 94, 95, 110,) in my "Remarks on Dr. King's Report," (p. 12,) and in the "Observations on the Second Report on Quarantine by the General Board of Health," (p. 31,) I have spoken of the outbreak at Moradinha, and have stated that the patients were convalescent on the 13th June. At that date they were out of bed, but thin and ill-looking.

John Jamieson was complaining when I left the island, and took some medicine from me the day on which I sailed (July 15). On the 19th or 20th he was laid up, and recovered after extreme peril.

By interval of course is meant the period intervening between the recovery of the last cases of one outbreak and the attack of the first cases of another. If the outbreak in question is to be tested in this way, the interval will be reduced to about *one month*,—in fact, to considerably less than that, if we are to date the cessation of the preceding outbreak from the period of the complete recovery of the patients.

How, then, I would ask, does Dr. King obtain his interval of *months?* How can he say that the fever broke out again *about the rainy season*, when he himself tells us in his Report, p. 9, that *the rains began about the middle of August!* Dr. King, I imagine, will find the re-appearance of the fever at Moradinha in May, "a stumbling block" in the way of his "*interval of months*," which even he, as a professed remover of such obstacles, must fail to remove.

What confidence is to be placed in a Report which is wholly inaccurate at the very point when there existed all the elements for the inquirer to procure his information with the most perfect accuracy?

In his recent work, p. 79, Dr. King says:—"We are to infer, then, that this first attack in 1846 resulted from contagion; but from whom was the disease derived?" "Jamieson," continues Dr. King, "ten months before, had been in almost hourly contact with the people of the Eclair, both on board and at the fort, and eight months previously attended night and day on Mr. Kenny."

Dr. King here, as everywhere else, repudiates contagion. Still, it is to be presumed that Jamieson's attack, as well as that of the others, had a cause, and, as I have said before, it was much more Dr. King's duty than mine to find one. Although it is not always easy to trace the progress from person to person of a disease prevailing in a locality with occasional interruptions during nearly twelve months, and consequently during *all seasons*, I can have no hesitation in stating how, in my opinion, Jamieson's illness may have arisen. He saw the patients at Moradinha on several occasions during their convalescence, as well as during their illness, and he was in the houses there within a week before he was attacked.

"It is known that marsh fevers have become developed weeks and even months after exposure to the exciting cause. The incubative period of the African fever appears to have been in many cases twelve, fourteen, fifteen, or even twenty-two days. (Dr. Bryson, "Climate and Disease," &c., pp. 151-2-3, and 233.) It appears that the disease did not seem to be of a milder type after this long incubative period, and therefore the mere severity of the hæmagastric pestilence does not argue a short period of latency."(a) Our

(a) *British and Foreign Medico-Chirurgical Review*, No. II., p. 395.

knowledge, indeed, of the incubative period of yellow fever, or of the time at which a person suffering from a contagious disease ceases to have the power of communicating the same disease to others, is not so definite as to shut out contact with these people as a probable cause of the disease in Jamieson. Moreover, the analogy derived from scarlet fever and other diseases admitted to be contagious may be adduced to support the view of his having been infected in the houses, even after the recovery of the patients. I have an account of fifteen cases immediately succeeding Jamieson's. They were chiefly among people of the better class, and in each case communication with sick persons can be proved.

Are we to infer that Jamieson's attack was due to malaria? for if so, what evidence have we of its existence? Not a drop of rain, by Dr. King's own showing, fell, until weeks afterwards. The patient was in a fine, roomy, open house, as were the others (Senhor Theodore Antonio Lima and Senhor Francisco Antonio Spencer, etc.), who had visited Jamieson, and were attacked immediately after him. Neither he nor they wanted the necessaries of life. None of them were drunkards. They had the best water and provisions the island could afford. Dr. King evidently has despaired of calling malaria to his aid here. He even seems to have lost confidence in "privies" and "dustholes," for these certainly existed at the Consulate, if not in the houses of the other persons named. Why did Dr. King not get out of the difficulty at once by invoking "an epidemical constitution of the atmosphere?"

But, as has been already said, Jamieson's attack must have been due to something; and Dr. King seems to think the fact of his escaping after contact with the people of the Eclair, and Mr. Kenny, the surgeon, in 1845, proof absolute against contagion. He, in short, seems to have arrived at the illogical conclusion, that as Jamieson escaped after exposure to sources of contagion in 1845, it was not possible that he could contract fever by exposure to a cause of the same kind in 1846. But, if reasoning of this sort is to be allowed, we may with equal justice declare, that the fact of his escaping in 1845 the dreadful malaria alleged to have existed in the ship and at the fort, as well as the influence of the assumed epidemical constitution of the atmosphere at the same period, argues incontestably against his liability to these influences, even could it be proved that any of them existed in 1846.

But the proof is wholly the other way. There is nothing to show anything like an atmospherical morbific cause; and Dr. King will hardly tell us that the atmosphere was epidemical because there was fever, and that there was fever because the atmosphere was epidemical.

Besides the strong positive evidence which in my report I brought forward in support of my views regarding the disease at Boa Vista, I also adduced instances of negative testimony to the same effect, derived from the perfect immunity secured to nearly sixty persons segregating themselves from infected districts. The localities I mentioned as having been resorted to for seclusion were, "Espinguera," near Mount Broyal; "Cantor," near Mount Ochello; and "Agua dos Caballos," a little over a mile from "Cabeca dos Tharafes."

Dr. King has nowhere made any mention of these places, and as he never was near them it is probable he was ignorant of their very existence, until he saw them spoken of in my report, after his return to England. But he has no right, seeing that he took little or no opportunity of examining the island, to question the "necessity of my sleeping in the open air during four successive nights."

Had I contented myself with the information derived from messengers, or had I rested satisfied with the account given by one individual of the progress of the fever in several villages; had I, in short, conducted the investigation by proxies, I should doubtless have saved myself much trouble and much labour. Unfortunately for my case, but perhaps not detrimentally to the inquiry, I imagined that everything worth doing had best be done by myself, and therefore arose the necessity to "sleep out at night." Any one at all acquainted with Boa Vista must be aware, that a proper examination of the island, including the complete circuit of its coast, could not otherwise be made. When Dr. King "attempts" to speak of what is necessary for topographical description or meteorological observation, he clearly goes a step beyond his comprehension.

Before leaving these places of refuge, I should like to ask Dr. King by what process of reasoning he considers the "*negative evidence*" which they afford to tell more against contagion than for it?

I imagine that all reasoning men will require of him something more apposite than the following case, which he seems to think conclusive as regards the position he has here assumed.

At page 80 of his recent work Dr. King observes, "The case of F. A. Ascensao (at p. 70 Dr. M'William's Report) is an excellent illustration of this immunity in consequence of seclusion. When asked (1420), 'Have you seen any sick people?' He replies, 'Yes, I have; I took goats to the house of Matthew Soares de Graca at Cabecada, and he was then sick. I stopped all night under the same roof with him, but in a different room.'

"Yet," continues Dr. King triumphantly, "Ascensao and his whole family escaped the fever in their place of seclusion at Bella Vista."

Here we have another illustration of Dr. King's views and reasoning on the subject of contagion. According to Dr. King, a contagious disease ought to affect *all* who approach those labouring under it. It is to Dr. King sufficient proof against the contagion of the Boa Vista fever, that Ascensao was not infected, because he escaped after "*stopping one night under the same roof with Soares,*" *although in a different room.*"(a)

Why did Dr. King not attempt to explain away the immunity of the persons who segregated themselves at "Cantor," at "Espinguera," and at "Agua dos Caballos." These cases present a large basis for general induction. The case selected by Dr. King is limited to a single individual.

Dr. King is naturally very desirous to absolve himself from a charge of misrepresentation which he alleges I have brought against him in regard to Dr. Almeida's views as to the nature of the disease.(b)

Having already acquitted Dr. King of anything approaching to wilful misrepresentation, I can only in justification of what I have elsewhere stated, refer to the evidence of Dr. Almeida given to myself (Dr. M'William's "Report," pp. 75, 76), to the evidence contained in his letter ("Remarks on Dr. King's Report," p. 14), which was written *before* he saw Dr. King's Report, and to that recorded in another letter, addressed to myself, and written *after* he saw that document. —("Observations," etc., p. 32.)

With regard to what passed between Dr. Almeida and Dr. King in casual conversation, I submit that information obtained in this manner cannot be allowed to stand against deliberately written and recorded evidence.

That Dr. King understood Dr. Almeida in the sense he represents, I have not the slightest doubt. I am, however, equally certain, that he wholly misunderstood him. Dr. Almeida indignantly and emphatically denies that he used words conveying the meaning attributed to him by Dr. King. Now, I can very easily, under the circumstances, reconcile a misunderstanding of this nature, arising between two gentlemen, without resorting to either of the offensive alternatives adopted by Dr. King and Dr. Almeida.(c)

Dr. King knew nothing of the Portuguese language; Dr.

(a) The following sentence, part of which I have taken leave to italicise, affords another specimen of Dr. King's views and mode of reasoning on the subject of contagion:—

"Supposing, however, that Luis Pathi was attacked with fever on the 17th, and that he had been exposed to infection on the 13th, when he is said to have assisted in hoisting the sick on board, *one cannot but infer that the same specific poison, (emanating from the bodies of the sick,) then possessed a virulence equally dangerous to* ALL *within the range of its influence, and which must have been recognised, not only in the features of the disease in the individual, but in its* IMMEDIATE *transmission to* ALL *who approached him during his illness.*"

(b) Dr. King, p. 93 of his recent work, says, "I never asked Dr. Almeida whether he was a contagionist or not." He did not put the question directly; but he took a very good method of ascertaining what were Dr. Almeida's views on the subject. Dr. Almeida in his letter ("Observations of Second Report on Quarantine," p. 32,) says, "from conversations that Dr. Leao and myself had with Dr. King, we discovered that his object was to prove that the yellow fever was not imported into this island by the steamer Eclair. He always found us opposed to this; and we proved to him by positive facts that he was in error."

(c) Dr. King, p. 96 of his recent work, says, "It would have been very easy for Dr. Almeida to have replied to my letter when I was on the island; but I can easily understand his reason for not wishing to commit himself in writing. After reading the letter which Dr. Miller has drawn from him," (another of Dr. King's mistakes) "it would be idle to speculate upon his reasons for making contradictory statements."

On the other hand, Dr. Almeida declares that Dr. King "has been pleased to pervert these conversations to suit his own erroneous views, not remembering, perhaps, that, to foist them upon the public, he has misused the name of one who, like himself, is in the Profession."—(Letter in "Observation on Second Report on Quarantine," etc.)

Almeida spoke English but indifferently. In such circumstances, surely a misapprehension of meaning on both sides might easily occur.

But, after all, I am at a loss to perceive what advantage could have accrued to the doctrine which Dr. King espouses, even had he succeeded, to use an elegant expression of his own, in "drawing" the desired letter from Dr. Almeida. All that he wished Dr. Almeida to say was, that he had on former occasions seen black vomit among patients affected with the remittent fever of the island, "in about one in every fifty patients."

Did Dr. King ever learn from Dr. Almeida, or any one else, that a disease had previously existed at Boa Vista with the general characteristics of the fever that followed the Eclair's visit; that proved fatal to one in fifteen of the whole population; to nearly 50 per cent. of the European Portuguese; and to seven out of eleven Americans and English, who remained on the island?

Why, neither from Lind, nor from Purdys, sailing direction; nor from the Salem (American) paper; nor from Captain Fitzroy; nor from Lieutenant Chelenichi; nor from any of his other authorities, known or anonymous, has Dr. King been able to show that a single case of yellow fever ever existed on the island of Boa Vista before the arrival of the Eclair.(a)

Dr. King is "puzzled" to know to whom the reply to the letter which he wrote to the Governor-General at the end of January, 1847, (my copy gives date February 2nd, 1847,) was addressed. I can enlighten Dr. King on this subject. It was not addressed "to Dr. M'William, to Mr. Rendall the Consul, or Mr. Miller, at St. Nicolas," but, as people will naturally be prepared to expect, to Dr. King himself; and his leaving the Cape de Verds so shortly after his own letter was written, may easily account for his not receiving the answer. There was no occasion for Dr. King to "declare most solemnly" that the answer had never reached him. It is still by me, and is quite at the service of Dr. King or any one else who may be desirous of seeing the document "*in extenso.*"

Having now completed a most irksome and disagreeable task, it remains for me to observe how much it has pained me, in going over Dr. King's pages, to find him throughout indulging in a spirit at all times and under any circumstances unseemly, but particularly unbecoming an officer of his age and rank.

He cannot view evidence, as taken, recorded, or interpreted by others, except through the medium of suspicion and doubt. Indeed, motives of unfairness and dishonesty are more than once attributed to Sir William Pym. As regards myself, I am more or less traduced in almost every page.

It is true Sir William and I are equally indifferent to the opinions of Dr. King on this as on any other matter. Nevertheless it is to be regretted, for the sake of the Colleges, the medical corporate bodies, the Profession in general, and others who lately have interested themselves in the cause of the naval medical service, that at the present day one of its members should, even in the ardour of controversy, have descended to language the tone and spirit of which carries us back to a period in the history of that service which we would fain cast into oblivion.

His Excellency, Don José de Norrhonha, the Governor-General, in his oft-quoted letter to the Consul-General at Gibraltar, concludes in these words—"I therefore calmly wait the result."

So Dr. King, in like manner, winds up his recent work by saying, "I appeal to the judgment of mankind, and calmly wait the result."

"But there,
I doubt, all likeness ends between the pair."

Don José soon saw his error, and became convinced that the disease was introduced into Boa Vista by the Eclair, and therefore was not "indigenous." What is more, he had the courage to avow, that his first impressions were wrong.

Judging from Dr. King's writings, there seems no reason to suppose that he will, like Don José, become a convert to the doctrine of contagion in yellow fever, either as regards Boa Vista or elsewhere. On the present occasion, therefore, he is deprived the opportunity of showing the extent to which he likewise can exercise the noble candour displayed by the late excellent Governor-General of the Cape de Verds.

(a) A work entitled "Ensaios sobre a Statistica das Possessoes Portuguezas," par Jose Joaquim Lopes de Lima—a gentleman who knew the Cape de Verd Archipelago well—was published in 1844. In Part I., page 52, the following passage occurs:—"I have said sufficient regarding the island of Boa Vista. It remains only for me to add, that, although the island is not so healthy a place as either 'Brava,' 'San Antonio,' or 'San Vincente,' yet that it is quite as healthy and much cooler than Fogo; it is much healthier than either San Nicolas or Mayo—not to mention the mortiferous 'San Jago.' There is no endemic disease at Boa Vista. Intermittent fevers are rare, and are easily cured there; and so is ophthalmia. There is less of other diseases than in many parts of Portugal itself."

ON THE USE OF TRACHEOTOMY IN CROUP.

By HENRY SMITH, Esq.

Surgeon to the Westminster General Dispensary, formerly House-Surgeon to King's College Hospital.

The attention of practitioners has been often called to the subject of tracheotomy in connexion with its application to cases of inflammatory exudation in the air-passage of young children; and it has been gravely discussed by some, as to whether this proceeding is a measure calculated to be of any material service in such cases. Those physicians and surgeons especially who have devoted most of their labours to the consideration of diseases of infancy and childhood, have discussed this subject at great length; but, as in many other matters in medical and surgical treatment, the question is still open; and, in these days of progress, it may not be considered out of place to add one's mite for the purpose of aiding the solution of it.

It would be useless for me to enter into the arguments which have been adduced by various authors for and against the operation. Able men in France, England, and Ireland, have entered into this subject with care and energy; and the main result of their inquiries is the knowledge of the fact, that the operation of tracheotomy has been, comparatively speaking, successful in France, while in this country it has been rarely attended with fortunate results. Various reasons have been assigned for this. Some assert with Dr. West, that this difference in success is due to the fact of the operation having been performed at an early period of the disease, before the most serious symptoms have set in; also from the circumstance of the croupy disease being of a different nature in France, and being seated chiefly in the upper part of the windpipe. Others might with propriety assert, that the difference in the climate of the two countries might not be without its effect in causing this striking result. However, it seems to be the general opinion among practitioners in this country, that the non-success of tracheotomy is due, in the first place, to the fact of the operation only being performed as a last resource; and, in the second, to the extension of false membrane below the windpipe, and the co-existence of inflammatory disease in the lungs.

It has fallen to my lot to be asked to see several cases in which this operation has been proposed and deemed expedient; and in three instances I have assented to the proposition, and have performed the operation. In no one of these cases did the operation succeed in saving life. They each presented striking differences to one another, and in each there were features of interest. For these reasons, I put them together, trusting that they may not be without their use.

Case I.—I was suddenly summoned, at half-past eleven, on December 15th, 1852, by Mr. Tinney, of Great Russell-street, as he was anxious that the operation of tracheotomy should be performed upon a little patient suffering with croup. On visiting with him, I found a fine little boy, aged two, lying in its mother's arms, apparently in a dying state. The face was pale and dusky, the eyes were turned up, and the breathing was hurried, and difficult. The actual symptoms of croup had appeared only within thirty-six hours. Leeches were applied the day before, and the usual remedies were given; but, on the previous night, the child became rapidly worse, and the symptoms increased, so that Mr. Tinney deemed it proper to give the patient a chance of life by opening the windpipe. There did not appear to me to be any time to be lost, if the operation were to be resorted to at all, as we feared the child would soon die in his mother's arms.

The patient was accordingly placed upon a table, in a good light, its head was supported by a pillow, and its neck extended. I made an incision over the lower portion of the

trachea, a little longer than an inch in length, quite in the median line. As I cut through the skin and cellular tissue, fortunately very cautiously and slowly, a vein as large as a crow quill, and distended to the utmost, rolled away from the point of the knife. This being avoided, the knife was carried deeper down between the muscles, until the fascia covering the trachea was exposed. Close upon the tube was another large vein. I was, therefore, obliged to use the knife with the utmost caution, whilst Mr. Tinney held the parts asunder with two blunt hooks. Some three or four minutes were thus consumed, but fortunately there were not more than a few drops of blood lost. However, just as the trachea was being exposed, the child suddenly gasped, fell back, and its breathing and heart ceased their functions. Without further delay the point of the knife was dashed into the trachea, and, at the same time, Mr. Tinney vigorously inflated the lungs by the child's mouth, and after a minute of great anxiety on our part, we saw the act of respiration feebly attempted. The process of artificial inflation was then repeated and carried on for half an hour. By this time the heart had begun to beat perceptibly, and the breathing was resumed with comparative frequency, and at the termination of an hour the child became perfectly sensible, and took some brandy. By this time we had managed, with great difficulty, to introduce a silver tube into the trachea; but as this did not suit well, I substituted a portion of gum elastic catheter, which served admirably the purpose intended. This was tied in, and the child was well wrapped up, placed near a good fire, and wine and beef-tea were given every now and then in small quantities.

At 3 p.m., to my great astonishment, the little thing was doing admirably; it was apparently free from distress, and breathing with ease; its face was of a natural colour, the pulse good, and the surface warm. Strict orders were left with the nurse to clear the tube if it became obstructed by mucus.

At 6 p.m. Mr. Tinney saw the child, and reported that he was still going on most satisfactorily. At 8 p.m., this gentleman was suddenly summoned, and found the child, on his arrival, dead. It appears that up to this period he had been apparently doing well, when suddenly he became distressed, turned his head from side to side, and then ceased to breathe.

On *post-mortem* examination we found that the whole of the trachea was lined with a thin film of false membrane loosely adherent to the tube. It reached as far as the bifurcation, but did not extend into the bronchi. The lungs were healthy, with the exception of some congestion at their posterior and lower portions, and there was a considerable amount of mucus seen when they were cut across. The larynx was free from disease. The opening in the trachea was just below the isthmus of the thyroid gland.

The next case was detailed at length in the *Medical Times and Gazette* of last year, as it presented a feature of special interest, from the circumstance of its having been the first instance in which chloroform was given during the operation of tracheotomy. It is necessary for me to give the particulars again.

Case 2.—I was requested by Mr. Welsh, of Blackmoor-street, at 2 p.m., on August 12, to perform tracheotomy upon a little girl, aged 4, who was suffering severely with croup. It appeared that the child had been taken with the premonitory symptoms more than a week before; and that four days previous to my seeing her, decided signs of croup set in. Various remedies were used, but the child became worse, and when I saw it was apparently in danger of speedy dissolution. There was excessive difficulty in breathing; there was hardly any expansion of the chest, but great labouring with the extraordinary muscles of respiration; and a very feeble pulse. I had the good fortune to be accompanied by Dr. Snow, and by that excellent surgeon, Mr. Wiblin, of Southampton, who agreed in the propriety of the operation. Dr. Snow, also, consented to try chloroform. Accordingly the little girl was carefully put under its influence, when the breathing became more tranquil, and I proceeded to do the operation. This affair happened to be most tedious, for I very speedily cut through a large vein at the root of the neck, which bled profusely. However it was effectually controlled, and I opened the trachea, and introduced a piece of gum-elastic catheter. It was necessary to be very cautious in preventing the child from suffocating, as immense quantities of mucus were ejected by the wound. Great irritation continued for about half an hour, but during this time the wound was kept well open by two blunt hooks; and in one of the violent fits of coughing, a long portion of false membrane was partly ejected by the wound. This was drawn out by the forceps and removed; after this, the irritation ceased in a great measure, and the child was able to take some wine-and-water.

Two hours after the operation, she was breathing with tranquillity, and had taken nourishment. There were, however, at intervals, some severe paroxysms of cough, accompanied with ejection of quantities of mucus, which came through the tube. Two minims of liq. opii sed. were ordered to be given to the child the last thing at night. Small quantities of beef-tea and wine were exhibited.

August 13, 10 a.m.—The child has passed a very fair night, and now breathes with tranquillity; the air passes very freely through the tube, and the chest expands well. There is, however, a great deal of inflammatory œdema of the neck in the region of the wound. There is very little cough and irritation. She takes nourishment well.

8 p.m.—This child has been lying in a partial state of stupor during the whole day, but has not been distressed in its breathing. This evening symptoms of sinking are manifest; the pulse is quicker and more feeble, and there is a difficulty in getting the patient to take nourishment. From this time she got gradually worse, and died at two a.m. on the 14th, thirty-six hours after the operation.

On *post-mortem* examination, I found the following appearances:—The inner surface of the epiglottis and larynx was studded with a white filmy deposit, while the trachea was lined in its entire length by a thick false membrane, and this croupy deposit was found to descend into the bronchi, even into the lower ramifications of the same. The lower and posterior portions of the lungs, especially on the right side, were a great deal congested, but their superior and anterior portions were in a pretty healthy condition. On peeling the false membrane from off the trachea, its inner surface was found to be in a very inflamed state. The brain was remarkably firm, and there was not any great congestion or any fluid in the ventricles. I had made the incision quite in the central line, but the knife had cut through the isthmus of the thyroid gland.

Case 3.—I was requested by Mr. Collins, of Mornington-place, Hampstead-road, at eleven a.m., Dec. 28, 1848, to open the windpipe of a little patient of his, aged eleven months. On visiting the case I found the child apparently dying from impaired respiration; this function was carried on with extreme difficulty; the alæ nasi were hard at work; the face was livid, and the inspiratory efforts were accompanied with a peculiar shrill noise, not precisely the noise of true croup. The child had been attacked with measles some three weeks previously, and had been progressing favourably until the 25th of December, when symptoms of inflammation about the upper part of the windpipe came on. On the 27th dyspnœa became marked, and on that evening the peculiar sound before spoken of was first heard; it was more like that of a railway whistle than anything else. Mr. Collins adopted the ordinary remedies for such symptoms, but they increased with rapidity, and on the morning of the 28th, threatened to be fatal. That gentleman strongly expressed his opinion, that the disease was seated in the larynx principally, and for this reason he thought that tracheotomy might save the child's life. I acceded to his wish, and having placed the child on a table, its head and shoulders propped by a pillow, I made an incision about one inch and a half in extent, in the median line of the lower portion of the neck. On getting down to the trachea, and as I was cutting through the fascia which covered it, I laid open a vein, which bled very freely, and rendered the last steps of the proceeding most troublesome. However, I opened the windpipe, and with great care prevented any blood getting into it. A piece of gum elastic catheter was introduced and fixed in; some wine and water was given. The breathing at once became more free; the eyes and face of the little child became remarkably changed for the better, and the pulse rose in volume. I stayed with it some time, when finding the improvement continue, I left, after having given small quantities of beef-tea and wine, and ordered an enema of the same to be exhibited.

At 3 p.m. Mr. Collins saw the child. Up to this time it had been breathing with tranquillity and without difficulty, but a change for the worse had set in; symptoms of sinking appeared, and they continued getting worse until 5 p.m., when death took place, six hours after the operation.

Post Mortem.—The pharynx and upper portion of larynx were both lined or studded with a thick deposit of lymph; this was especially observable about the epiglottis and in the ventricles of the larynx; but the whole of the trachea was free from any semblance of the disease. The lower portion of each lung was hepatised. In my operation I had cut through the third, fourth, and fifth rings of the trachea.

Although in each of these cases the ultimate result of the operation was the same, there is presented in them a difference as to the nature and the severity of the disease for which the individual operations were put in force, as well as the amount of benefit which was produced by them. In the case first detailed there is presented to us an instance of croup which had run its course with extreme rapidity, and which was accompanied by symptoms of great severity. It was a case in which the operation appeared to be the only resource left. So exhausted, indeed, was the little patient, that the shock of cutting through the tissues, with scarcely any loss of blood, apparently destroyed life. But after the trachea was opened, the child was revived from a seemingly hopeless condition, and an extraordinary improvement was the result. It seemed as though this improvement would go on, when, from some cause or other which could not be ascertained, the patient was suddenly asphyxiated. Possibly the tube may have become blocked up, and the nurse may not have cleared it in sufficient time. It was evident that death was from sudden asphyxia.

On the *post-mortem* examination, it was found that there was no reason to regret that the operation had been done, for the appearances indicated that it was a case where tracheotomy might give a fair chance of life. The false membrane was neither thick nor closely adherent, nor did it extend into the bronchi, and the lungs were comparatively free from disease.

In the case next detailed, there are striking differences in many points. The disease had existed for a much greater length of time, and the symptoms were by no means so distressing as in the first instance. The operation gave not only the same temporary relief, but the relief which was given was prolonged to a much greater period of time, the patient having lived thirty-six hours after it. Yet, on *post-mortem* examination, it was found that the disease had existed in its most intense form, the false membrane being very thick, and being extended into the ramifications of the bronchial tubes. It is in this condition of the disease that there can be so little hope of tracheotomy doing any good; and it is surprising that so much relief was given, and life saved so long. Moreover, in this instance, the operation itself was long and tedious, and there was a considerable loss of blood; while, in the case before detailed, the operative process itself was very much more quickly accomplished, and there was scarcely any loss of blood.

In the third case, the difference which obtained is in reference to the nature of the disease. In the two former, the affection was the ordinary inflammatory croup, the seat of it being the lower portion of the principal air-tube. In this instance, however, there is presented to us that species of croup termed by the French authors "diphtherite," which consists essentially of a deposit of inflammatory exudation in patches upon the upper part of the windpipe, upon the epiglottis, superior portion of larynx and pharynx, the trachea being free. This is the form of disease in which it is stated that the operation of tracheotomy has been most successful; and there is reason to believe that it would be so in consequence of the trachea and larger bronchi being free from the deposit. This disease, however, is for the most part the result of an attack of measles; and it is extremely likely that the lungs are, or have been, in a state of inflammation. In all probability, it was the existence of inflammation of the lungs that rendered the operation of no ultimate avail in this case.

This subject of tracheotomy appears to myself to be surrounded with many difficulties. Should the operation ever be performed or not in croup, is a question which, perhaps, may be legitimately asked. If men of great experience are appealed to, it is difficult to get any satisfactory answer. The question could only be met by a reference to the data of the operation, which, however, have not been put together. My own feeling on the matter is, that the surgeon is placed in a most trying situation when called upon to perform this operation. He is urged on by the parents of the child to resort to any measure which may give a chance of relief to the great distress from which they see it is suffering. He feels that there is no hope for it if the operation is not done, and yet he cannot avoid the conviction, that he is resorting to a desperate measure. At the same time, he does not like to throw away this last chance, which *may* save the life which is already in such extreme danger.

This state of mind must make one undecided and timid, and possibly a case occurs where the result has made the surgeon repent that he had not given his patient this last chance. In other instances besides those above related, the question as to the propriety of this operation has been pressed upon me. The most instructive was the following:—

Case 4.—I was suddenly summoned, at 10 a.m., on the 9th of February, to a child, aged three, the father of the patient stating that it had been attacked with a fit of difficulty of breathing, and that he expected it would be dead before he could get to his house. I at once proceeded with him, taking my instruments. On arrival I found that the child had recovered from the paroxysm, but was told that he had been fighting for breath and had grown black in the face. He was now breathing with difficulty and had all the symptoms of disease in the upper part of the windpipe. On looking into the mouth, the fauces and tonsils were seen studded with a deposit. The child had had measles about two weeks previous, and afterwards inflammation of the lungs, which had been actively treated and had been subdued. It was evident that the deposit had involved the upper part of the larynx; still the symptoms did not appear to me to justify an operation, for which the parents were rather anxious. I ordered a blister to the throat, and recommended some wine and water, and at the same time desired the parents to watch the child narrowly. I saw the child in four hours afterwards, and found it much in the same condition, but rather lower. However, he was enabled to sit up in his mother's lap. At 9 p.m. the child had a sudden fit of dyspnœa, and died before there was a possibility of getting to it.

I examined the body next day. The back part of the tongue, the fauces, and pharynx were studded with the inflammatory deposit. The opening of the glottis was obstructed by tenacious mucus, and on clearing this away I found the same kind of deposit as existed on the fauces studding the inner surface of the upper portion of the larynx, but leaving the trachea free.

Now, on seeing this case at first, I felt that in all probability tracheotomy would be required, yet the condition of the child did not appear to me to be sufficiently bad, notwithstanding the parent's description of the attack of dyspnœa; and, although strongly tempted to perform the operation, I allowed myself to defer it until the symptoms should become worse. The result of this indecision was shown. The examination after death too surely proved that the little child had become suddenly asphyxiated, and that tracheotomy might have saved life. This, at least, was the remedy indicated. Moreover, the disease was of that form in which the operation has been shown by the French practitioners to be so much more likely to be attended by success than in ordinary instances of inflammatory croup, and it must be confessed that I could not divest myself of the idea that a little more decision on my part might have prevented the fatal event.

Although I am straying from the strict subject of this communication, I will refer briefly to another condition in which tracheotomy is sometimes called for. I am alluding to those instances where young children have been affected with scarlatina; and where, after the acute stage of the disease has subsided, life is suddenly placed in imminent danger, by rapid enlargement of the cervical glands. It must have occurred to those practitioners who have attended much among the poor children of large towns to have seen this, and it is now and then observed in that class of life where there is want of neither wholesome food nor pure air. In such a case the cervical glands enlarge to such an extent, that great pressure is exerted upon the windpipe, and the child is placed in imminent danger of being suffocated. It is then that the propriety of tracheotomy is suggested to our minds; and it is impossible to attend one of these cases without seriously thinking of this. Unfortunately, however, it happens that the pressure is exerted upon the œsophagus or pharynx at the same time, and that the patient is unable to swallow. If such be the case, it will only add to suffering to perform the operation of tracheotomy; for, even if the dyspnœa is remedied by an

artificial opening, the effect can only be beneficial for a short time, if the patient is unable to swallow.

A few weeks ago I was called to a case of this nature, where possibly it might have been a justifiable measure. The patient was a fine little boy, the son of parents well to do in the world; he had had a very bad attack of scarlet fever, the acute stage of which had gone by. On the eighth day, however, some enlargement of the cervical glands on the right side of the neck took place, for which leeches were used. In the following night there was a sudden change for the worse; the swelling had become in a few hours nearly as large as the fist, and very tense; the boy was much distressed, and breathing with difficulty. I was called to him whilst in this state. I ordered a repetition of the leeches, and small quantities of wine and beef-tea at frequent intervals. In the course of a few hours more the symptoms had increased, the dyspnœa becoming more marked, and he was now only able to swallow a very small quantity of fluid, cautiously given in a teaspoon. The question of tracheotomy now suggested itself to my mind, and the parents were spoken to about it; but they were not anxious that it should be done. The symptoms from which the little boy was suffering rapidly became more severe, and he died before night.

In this instance I did not urge tracheotomy, because it was apparent that there was as much pressure upon the pharynx as upon the air-tube; moreover, the boy had been so much depressed by the poison of scarlet fever, that I was fearful he might die during the operation. It is, however, in a case of this nature that circumstances might occur which would render this proceeding perfectly justifiable.

13, Caroline-street, Bedford-square.

THE LONDON
PRACTICE OF MEDICINE AND SURGERY.

ST. BARTHOLOMEW'S HOSPITAL.

EXTRACTION OF AN IMMENSE CALCULUS BY THE LATERAL OPERATION.—DEATH.—AUTOPSY. ANALYSIS OF THE CALCULUS.

Levi B., aged 37, labourer, a pale, emaciated man, with sallow, haggard countenance, strongly expressive of suffering, was admitted into the hospital, Dec. 27, 1852, under Mr. Lawrence. He was so enfeebled, both in body and mind, by incessant pain and irritation, that he could not give a connected history of his complaint, to which he did not assign a longer duration than about three years. His wife, however, who came to the hospital after his decease, said, that he had been subject from childhood to irritability of the bladder, causing frequent micturition, followed by pain, and that the urine had often been mixed with blood. He had been under medical treatment for several years, his sufferings having become so much worse during the last twelvemonth, that he was obliged to discontinue work. He had applied to a provincial institution, where he was informed that nothing could be done for him, and he came to St. Bartholomew's with the notion that he was labouring under a disease of the bladder. He had been married eight years, during which his wife had borne three children. Opiates, with nourishing diet and wine, were ordered to alleviate suffering and improve strength; but little could be accomplished in this way under the incessant suffering of painful desire to make water every quarter of an hour, night and day. The sound, which struck immediately on a stone, could not be moved freely in the bladder; the conclusion from the examination was, that the calculus was of large size.

The operation was performed in the usual manner on January 3, under the influence of chloroform. The gorget came at once on the stone, which prevented it from entering the cavity of the bladder. Considerable difficulty was experienced, first, in carrying the forceps between the stone and the bladder, and then in expanding them, so as to embrace the stone firmly. When this was at last accomplished, the rings of the instrument were fully four inches apart. As it was obviously impossible to extract a stone of such dimensions through the ordinary lateral incision, Mr. Lawrence divided the right side of the prostate with a narrow-bladed beaked knife. This did not mend matters materially, and there seemed so little chance of getting out the stone entire, that attempts were made to perforate and break it. Some considerable fragments were removed in this manner, but the general mass was not visibly diminished, so far as could be judged from the separation of the blades of the forceps. At last, by the powerful efforts of two strong persons in succession, the stone was brought nearer to the surface, so that it could be turned into a position more favourable for extraction, which was then effected by carrying a scoop above it, and enlarging the external incision posteriorly.

Although the loss of blood was not considerable, so protracted an operation, during the latter part of which the anæsthetic influence was imperfect, was a severe trial in a constitution so much debilitated. Sickness came on, and the pulse sank soon after the patient had been placed in bed. Brandy and ammonia in small quantities were administered from time to time, and he became comfortable. A full dose of opium was given at night.

Jan. 4.—The patient said that he had not passed such a night for years; he had slept several hours continuously, and felt completely relieved by the operation. He had no pain; the urine came freely through the wound, but the pulse remained very feeble. Liquid nourishment and stimulants were given frequently in small quantities.

Jan. 5.—The night was passed quietly, but without sleep; there was no re-action in the circulation; the pulse gradually sank, and death took place at nine in the morning.

Examination of the Body.—The bladder was contracted to about the size of the heart; the walls were thickened, particularly the muscular coat; the mucous membrane was in irregular folds, of deep livid red hue on their convexities, with portions of calcareous matter of various size, detached in the operation, mechanically adhering to them; the loose cellular tissue connecting the viscus anteriorly was infiltrated with a thickish yellow pus, of healthy character. The infiltration did not extend beyond the fundus of the organ in front, reaching behind to the middle of its lateral aspect. The adjacent peritoneum, and that of the abdomen generally, were in a perfectly healthy state.

Both kidneys were diseased, the fibrous capsule being thickened and morbidly adherent; the pelvis infundibula and ureters on both sides widely dilated; the latter to the size of the little finger; the glandular substance was preternaturally firm and pale. One kidney rather exceeded the natural size; the other was reduced to about one-third of the usual magnitude.

The following accurate analysis of the calculus was performed by Dr. Stenhouse, lecturer on chemistry at St. Bartholomew's Hospital:—

Qualitative Examination.

Fusible Calculus { Phosphate of lime. Phusphate of magnesia and ammonia. Carbonate of magnesia. Urate of soda.

The centre of the calculus consisted of oxalate of lime.

Quantitative Analysis.

No. 1.

Amount employed	..	1·2938 grammes.
Residue after ignition	..	1·0582 ,,

Residue dissolved in HCl. and Solution divided into Two Parts.

Part 1.

Carbonate of lime	·4033		
Containing lime	·2258	=	34·9 per cent.
Pyrophosphate of magnesia	·3858		
Containing phosphoric acid	·2435	=	37·64 ,,
Pyrophosphate of magnesia	·1468		
Containing magnesia	·0538	=	8·32 ,,
Carbonic acid		=	2·24 ,,
Ammonia		=	3·16 ,,
Volatile matter (water, etc.)		=	13·4 ,,
			99·66

Part 2.

Carbonate of lime	·4038		
Containing lime	·2261	=	34·96 per cent.
Pyrophosphate of magnesia	·382		
Containing phosphoric acid	·2416	=	37·34 ,,
Pyrophosphate of magnesia	·145		
Containing magnesia	·05317	=	8·22 ,,
Carbonic acid		=	2·28 ,,
Ammonia		=	3·20 ,,
Volatile matter (water, etc.)		=	13·36 ,,
			99·46 ,,

No. 2.

Amount employed	·4875		
Residue after ignition	·3982		
Carbonate of lime	·3108		
Containing lime	·1741	=	35·7 per cent.
Pyrophosphate of magnesia	·283		
Containing phosphoric acid	·1792	=	36·8 ,,
Pyrophosphate of magnesia	·11		
Containing magnesia ..	·04315	=	8·28 ,,
Carbonic acid		=	2·26 ,,
Ammonia		=	3·2 ,,
Volatile matter (water, etc.)		=	12·95 ,,
			99·19 ,,

Composition in 100 *parts.*

	No. 1.	No. 2.	No. 3.	Mean.
Lime CaO	34·9	34·96	35·7	35·19
Magnesia MgO	8·32	8·24	8·28	8·28
Oxide of ammonium NH_4O	3·16	3·16	3·2	3·18
Phosphoric acid RO_5 ..	37·64	37·34	36·8	37·26
Carbonic acid CO_2 ..	2·24	2·28	2·26	2·26
Volatile matter	13·4	13·36	12·95	13·24
	99·66	99·34	99·19	99·41

These numbers admit of the following arrangement:—

Fusible Calculus	Phosphate of lime	64·52
	Phosphate of magnesia and ammonia	27·69
	Basic carbonate of magnesia ..	6·51
	Urate of soda	1·06
	Loss	·22
		100.00

Weight of the whole calculus, 12½ oz.

Weight of the largest piece, 10 oz.

LIST OF SCIENTIFIC MEETINGS.

This Evening, March 5.—Royal Institution.—*Subject:*—"On the Philosophy of Chemistry." By Professor A. Williamson. Three o'Clock.

Monday, March 7.—Royal Institution.—*Subject:*—"On Organic Chemistry." By Dr. A. W. Hofmann. Four o'Clock.

Tuesday, March 8.—Royal Institution.—*Subject:*—"On Animal Physiology." By T. Wharton Jones, Esq., F.R.S. Three o'Clock.

Wednesday, March 9.—Royal Institution.—*Subject:*—"On Organic Chemistry." By Dr. A. W. Hofmann. Four o'Clock.

Thursday, March 10.—Royal Institution.—*Subject:*—"On the General Principles of Geology." By J. Phillips, Esq. Three o'Clock.

Friday, March 11.—Royal Institution.—*Subject:*—"Geological Sketches round Ingleborough." By J. Phillips, Esq. Half-past Eight o'Clock.

Saturday, March 12.—Royal Institution.—*Subject:*—"On the Philosophy of Chemistry." By Alexander W. Williamson, Ph. D. Three o'Clock.

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Post-Office Orders to be made payable at the Post-Office in Coventry-street, to Mr. James Lucas, 46, *Princes-street, Soho.*

Kent County Ophthalmic Hospital.—Mr. J. Wickham Barnes, late House-Surgeon at the Royal Westminster Ophthalmic Hospital, has been appointed House-Surgeon to the Kent County Ophthalmic Hospital at Maidstone, in the place of Mr. Benjamin Hunt, resigned.

Epidemiological Society.—At the ordinary meeting of this Society, to be held at the house of the Royal Medical and Chirurgical Society, on Monday the 7th, a paper on Scarlet Fever, by Mr. Richardson, of Mortlake, will be read, and, should time permit, a short paper on the same subject, by Mr. B. Harrison, of Manchester, will be also read. The nomination of office-bearers for the year ensuing will take place on the same evening.

Medical Times & Gazette.

SATURDAY, MARCH 5.

THE NECESSITY OF SUPPRESSING ILLEGAL PRACTICE.

Apparently as we admire the principles and the practice of political and social liberty, we nevertheless consider that in all that relates to the administration and sale of medicines to the public, the system of self-government and the right of private judgment have been carried infinitely too far. While the man who robs another of his pocket-handkerchief is mercilessly condemned to suffer punishment by the laws of the land, the more gentlemanlike and wily offender, who practises upon the ignorant and the credulous an art of which he knows nothing, escapes uninjured, even although his misdeeds may deprive thousands of their property, their health, and their lives. When we read of the flagrant atrocities perpetrated upon the unsuspecting victims of disease by the illegal practitioners of the present day, we find some difficulty in believing that we are living in the full meridian of the intellectual development of the nineteenth century, and are involuntarily reminded, that, in some respects at least, we are not much in advance of the misty empiricism of the dark ages. On the one hand, we behold, both in this country and in other civilised lands, a host of learned and intelligent men, applying the powers of the most acute logic and the results of the most laborious experience to the investigation of the healthy and morbid conditions of the human body, to the discovery and classification of remedial agents, and to the establishment of sound views of therapeutics; on the other hand, we come in contact with a brood of nefarious quacks, who ignore altogether the lessons of experience and the rules of logic, and who, with the sole view of accumulating riches for themselves from the robbery of their victims, bring ridicule upon medical science, and reflect disgrace upon the country which they inhabit and the age in which they live.

Not the least mortifying of the reflections which every day's experience is likely to excite, is the feeling, that, even by despotic Governments, more care is taken of the health of the community than by the rulers of our own free and prosperous country; for, although we do not assert that quackery is wholly suppressed in any quarter, yet we must admit the melancholy truth, that in no region of the earth does it flourish more luxuriantly than on our own soil. In other countries there are laws to punish quackery and to protect the legitimate practitioners of medicine; in our own country there are none, or hardly any; and, although an unqualified person professing to exercise the functions of an educated medical man, is liable to a pecuniary fine, yet, if he boldly avows himself a quack, he is not only unmolested by the law, but he becomes a hero in the eyes of the public.

Let us contrast the operation of the laws relating to quackery and illegal practice in our own country and in France.

In our last Number, we recorded a case where an inquest was held upon the body of a child seven years old. It appeared that the child was ill, and was taken by the mother to a chemist, as she imagined that he was a medical man. This person prescribed for it, but it became worse and died. It is true that the coroner and the jury censured the chemist for practising an art with which he was unacquainted, but the chemist retired from the inquest-room to

practise the same art upon the next victim who might happen to come to his shop.

Another case which we placed in juxta-position with that just quoted was that of a lady, whose death was caused by the administration of lobelia and cayenne pepper, prescribed for her by an unqualified practitioner. It appeared by the evidence of Dr. Letheby, that the stomach of the deceased contained 110 grains of lobelia powder with cayenne pepper; the duodenum also contained a quantity of lobelia, and he was of opinion *that there was quite sufficient lobelia in the stomach to kill the deceased.* Dr. Letheby added, that he had had two cases under his notice where symptoms similar to those he had witnessed during this investigation, were exhibited in the body from the action of lobelia; and there were *nine other cases reported, in four of which a verdict of manslaughter was returned: lobelia was a powerful poison.* The verdict in the present case was manslaughter against the accused party.

Now, it may at first sight appear, that the verdict of manslaughter contradicts our previous statement, that the quack is unmolested by the law; but the fact is, that the Coroner's court is only one of preliminary inquiry, and, although we do not pretend to anticipate the verdict which will be returned against this agent of Dr. Coffin when he comes to trial, yet, if we may judge from past experience in such matters, it will be found that the law is powerless to convict him.

Let us now turn to the practice of our neighbours on the other side of the water. Two men keeping a chemist's shop in the Passage du Sannon, in Paris, were lately fined 20*l.* each, the first for practising pharmacy without a diploma, the second for prescribing, although merely holding a pharmaceutical licence. A quack, named Bron, who persisted in selling a secret remedy, although the same had been condemned by the Academy of Medicine, and forbidden by the Government, was also fined 20*l.*, and sentenced to six days' imprisonment. Two women keeping herbalist's shops were lately fined 2*l.* each, for selling various syrups and balsams, such traffic being supposed likely to injure the business of the regular *pharmacien.*

"Look upon this picture and on this." On the one side of the water, a chemist is fined 20*l.* simply for prescribing medicine without possessing a medical diploma; on the other side, a wholesale destruction of human life is caused by enormous doses of lobelia and cayenne pepper, administered by unqualified practitioners, and we have never yet heard of the offenders having suffered the slightest punishment.

How long this state of things will be allowed to continue it is impossible for us to predict; and, to say the truth, we are almost tired of agitating the question, such is the deafness of the parties in authority to the claims of legitimate medicine, and such the indifference with which this wanton sacrifice of human life appears to be systematically regarded. But we should be guilty of a base desertion of our duty to the Profession, and to the cause of humanity in general, if we omitted to notice such flagrant cases as those which it has been our duty to record, and if we neglected to make another effort to awaken the attention of the Government and the Legislature to one of the most crying evils of the time in which we live.

[Since the above was written the accused party has been acquitted, as, indeed, we supposed he would be. As the remarks of the presiding judge were of a most extraordinary and novel character, we intend to review the whole circumstances of the trial in our next Number.]

PROPOSED CHAIR OF MILITARY SURGERY.

On Friday last, in his place in the House of Commons, Sir De L. Evans called attention to the propriety of establishing a chair of Military Surgery in London and Dublin. Of course, Mr. Sidney Herbert knew nothing of the subject. Secretaries at War, like other members of Her Majesty's Governments, never do know anything of medical arrangements. Nay, judging from the little respect with which the whole fraternity of ministers treat every body and every thing connected with the science of Medicine, one would suppose that they thought, like certain of the lower animals, that the more quickly the sick were finally disposed of, the better for the community. But, however much this may be their feeling with reference to the sick *generally*, were they even pecuniarily wise in their generation, they would take every care to secure for our soldiers and seamen the most efficient aid in the time of sickness, and the best possible advice for determining the arrangement that should be adopted for preventing disease. The army, including that of the East India Company, consists of nearly 500,000 men. Our sailors are more numerous than those of any nation in the world. Sick troops are worse than useless—they cost money for their support, and render no services in return. The healthy only are the instruments that our Generals and our Admirals can employ with effect. Raw recruits, too, are less valuable machines than tried veterans; and to cure the sick, and so to prolong the life of the soldier, is to secure for our armies veterans in the place of inefficient recruits; and yet further, every new soldier exported from this country to India costs, before he is fitted to discharge his duty, 135*l.*, *i.e.*, his training, equipping, and transit cost that sum; and, therefore, every soldier's death prevented in India is so much saved to the taxpayer.

To the nation, then, if not to Secretaries at War and Lords of the Admiralty, the efficieney of the army and navy medical staff is of the highest moment. But "many even of the well-educated surgeons sent out," says Sir William Napier, in his "History of the Peninsular War," "were for some time of little use; for superior skill is of trifling value in comparison of experience in military organization. Where one soldier dies from the want of a delicate operation, hundreds perish from the absence of military arrangement." This leads to the question, What is taught by a Professor of Military Surgery that is not taught in an ordinary course of surgery?

Sir George Ballingall, when he proposed to separate the teaching of military surgery from that of general surgery, was asked how the soldier of to-day differs from the countryman of yesterday? He aptly replied, the man was the same, but the position in which he was placed was different.

The military surgeon, in addition to the knowledge needed for the practice of his Profession in private life, "has," to quote from Mr. Tufnell's excellent Introductory Lecture, (*Medical Times*, May, 1851,) "to be thoroughly acquainted with the points most essential in the selection of the recruits for the service.

"He must understand the principles of hygiene, and he prepared to maintain the health of soldiers and seamen, in all situations, and under all the circumstances in which they may be placed. He must study the subject of climate, so far as regards health, the geographical distribution of diseases, and the causes of endemics. He must be thoroughly acquainted with the theory and treatment of diseases of the tropics. He should understand the duties of the surgeon on the field, and how to move sick and wounded on the march. He must not only be prepared to

construct temporary hospitals, but must also understand how to maintain their economy and discipline. He must be acquainted with the effects of coercive and corporal punishment, the peculiarities of feigned disabilities, and the causes which permanently disqualify men for the service."

The only chair of Military Surgery in the United Kingdom is in the University of Edinburgh. Its foundation was the result of the efforts of John Bell, who addressed a memoir to the Government on the subject soon after the battle of Camperdown. In 1851, Mr. Tufnell gave a course of lectures on Military Surgery, at the City of Dublin Hospital. In London no such course has ever been attempted. Of the propriety of establishing a chair of Military Surgery in London, the great centre of surgical talent, there cannot be a doubt. The only questions are, who should establish it? and where should the lectures be given? There are many objections to a course of this kind being delivered at any of the Metropolitan Schools of Medicine; for, were such a course given at one school, all the other schools would have to establish lectureships on the same subject, in order to secure themselves from pecuniary loss, and the result would be, that many of the Professors of Military Surgery would be young men who knew practically very little more of the subject they were to teach than their hearers.

It seems, then, to us, that if a chair of Military Surgery be established in London, that the lectures should be delivered at the Royal College of Surgeons. In the Council of that Institution are some of the most experienced surgeons in the world. The College itself occupies a most central situation, and is easy of access to the students of all the metropolitan schools. It is provided with a good theatre, and an unrivalled museum. To the care of the College, also, might be confided the present collection of pathological specimens at Fort Pitt. As to the appointment, title, and payment of the Professor, a little energy on the part of the Council of the College of Surgeons might easily effect a favourable arrangement with the Government. Surely Mr. Guthrie, for one, might move in this matter.

THE CLINICAL STUDY OF DISEASE.

In the numerous introductory lectures which are annually delivered at our Medical Schools, it generally happens that the lecturer insists upon the necessity of his auditors paying particular attention to two branches of study, first to the subject which he himself is about to teach them; and, secondly, to the investigation of disease at the bed-side. Now that which, under these circumstances, has allotted to it the second place, may very justly be advanced to the first, and we shall probably run but little risk of going counter to the opinions of our readers when we say, that, of all the branches of education which demand the consideration of the medical tyro, none can compare in importance with the lessons to be daily learnt from the practice of the hospital. Just as a man who wishes to become acquainted with the nature and characteristics of a foreign country, may read a whole library on the subject, inspect bird's-eye and panoramic views faithfully drawn, or study a series of paintings delineating separately all that is most worthy of observation, and yet certainly fail to obtain any correct idea of the distant land; so may a student learn the entire practice of physic by heart from books, and yet be unable to distinguish small-pox from measles when called upon to put his theoretical knowledge into actual practice. Valuable, therefore, and indeed indispensable, as is the assistance to be derived from a careful study of the writings of those who have put all that their experience has taught them into books or lectures, yet these writings and discourses must be looked upon solely as guide-books are regarded, that is to say, as intended to smooth the difficulties which the observer will have to encounter, but by no means calculated to do away with the labour of self-observation. As regards the power, moreover, of observing correctly, it is well known that this faculty is only to be obtained after much discipline and long cultivation; and it may be doubted whether it can at any time be better acquired than during the few years dedicated to the study of medicine, when means are afforded of witnessing disease on a large scale, which, to the great majority of pupils, cannot again be offered. The practical study of morbid processes, therefore, is a study that must not be deferred; it may not, like the attendance upon lectures, or the perusal of books, be put off until a future occasion. Each day allowed to pass without a visit to the wards is so much opportunity lost, so many means of self-improvement neglected.

But it may be said, the truth of these remarks is universally allowed. Why insist so strongly upon that the necessity of which none deny? Simply because, though all are agreed as to the general accuracy of the conclusions to be drawn from these statements, none *act* as if they were so convinced. We think that there will be but little difficulty in proving, that neither the examining bodies, the professors, lecturers, nor students of our metropolitan schools so play their respective parts, as to prove that they regard the clinical study of disease as an almost all-absorbing pursuit. In proof of the truth of this statement, one fact only at present need be mentioned. According to the regulations of the College of Surgeons and the Society of Apothecaries, students can pass through their hospital studies in three years; and they are allowed to do so. At the same time, the College demands from each candidate for its diploma a certificate, to the effect that he has attended, "during three winter and three summer sessions, the practice of surgery at a recognised hospital or hospitals in the United Kingdom," as well as a certificate showing that the practice of physic has been watched for one winter and one summer session. Now, it is clear, that if this rule is to be attended to,—as it most certainly ought to be, the periods of study being quite as short as they can be made with any prospect of their being useful,—it is clear, we say, that students must attend their medical and surgical practice for nine months at the same time; that is to say, the medical and surgical wards must both be visited on the same day. Yet, in scarcely a single instance can this be done; for, as it were, purposely to render the rule of no avail, the physicians and surgeons of the London hospitals go round the wards at the same hour. The two most important lessons of the day are given at precisely the same time, and it is left to the student to decide which he will neglect. And this is done systematically, as if it were the best possible arrangement,—as if it would be too much for the student to witness medical and surgical disease on the same day, although it is not thought impossible for him to learn anatomy one hour, physiology the next, chemistry the third, and so on.

It will doubtless be said that blame has more tongues than praise, and that it is much easier to point out errors than to propose feasible remedies. We trust this will not prove to be the case with us. By comparing, as in subsequent observations we intend to do, the mode of giving clinical instruction in other countries with our own present plan, and by indicating the good features of the former, we trust we may be enabled to deduce certain rules for ourselves, in

order that the London hospital schools may not only remain what they now are—rich fields for practical instruction—but that they may also be rendered what they now are not, fertile soils of information turned to the best advantage.

PARLIAMENTARY INTELLIGENCE.

HOUSE OF COMMONS.—February 25, 1853.

THE ARMY ESTIMATES.

On the motion, in Committee of Supply, that a sum not exceeding 162,897*l.* be granted to Her Majesty to defray the charges for staff officers, hospitals, and expenses of the medical department,

Sir De Lacy Evans said: I am anxious to call the attention of the Right Honourable gentleman, the Secretary at War, for a moment to a notice which I have placed upon the paper in reference to a subject connected with this vote. My object is, as I have stated in the notice, to solicit the Right Hon. gentleman's consideration to the expediency, the ultimate economy, and the very small present outlay, which would be required for the purpose of doing that for the medical department of our medical service, which is done in Edinburgh; that is, of instituting a lectureship, or professorship of military surgery, in the King's College, or in one of the medical schools in London; and a similar establishment in the University, or College of Surgeons, in Dublin. In Edinburgh there has been such a Professorship of military surgery established since the year 1806, I believe; and it is certainly of equal importance that we should have a similar one in the other two capitals, where the medical schools from which a very large proportion of the medical officers of the service are obtained, exist. The civil hospitals indeed are excellent in this Metropolis. But no tuition can be expected in them regarding the cure of diseases more peculiarly incident to armies in the field, and still less regarding what is of still more consequence—namely, the prevention of disease in the camp, the bivouac, under the tropics, &c. It has been acknowledged by the highest authorities in the army, that the lectures given by the distinguished Professor, Sir G. Ballingall, in the College of Edinburgh, have been of the greatest benefit to the medical service of the army. (Hear.) I am not sure out of what source the expense of that Professorship is defrayed; whether out of the College funds, or by a grant from the Government. I do not, however, find any reference to it in these estimates. Be that as it may, what I wish to urge upon the Right Hon. gentleman is, that a very small pecuniary allowance annually by the Government would be sufficient for the establishment of similar Professorships in London and Dublin, which at the same time I may say I should not have thought of suggesting, were it not for the representations which have been made on the subject by four or five of the most eminent medical officers in the army, amongst whom I may mention the names of Sir James M'Grigor, Mr. Guthrie, Sir George Ballingall, and Mr. Martin, a distinguished officer of the medical staff of the Indian army. As regards the expense, as I have said, it would be trifling,—not greater, perhaps, than the salary of a tide-waiter in the Customs; in fact, when compared with the advantages which would result, the cost of these professorships would be so small as to be unworthy of a moment's attention. (Hear, hear.) Another object which, as I have stated in my notice, I wish to bring under the Right Hon. gentleman's consideration, is the desirability of removing to the metropolis the museum of anatomical preparations, in reference to the diseases of foreign climates, which is now in Fort Pitt, at Chatham, where it is comparatively useless, being inaccessible to medical students who are studying in London for the medical service of the army and navy. The Right Hon. gentleman and the Committee will readily understand how desirable it is, that that museum should be transferred to some fitting place in the metropolis, where there are medical schools and duly qualified professors and lecturers, by whom the various objects in that museum might be illustrated and explained. That such lectures are deemed requisite for the instruction of the medical students is proved by the fact, that Mr. Guthrie, one of our most celebrated military surgeons, has given several courses of them in this metropolis, notwithstanding his limited time for doing so, by reason of his great private practice. A gentleman, also in private practice in Dublin, Mr. Tufnell, is now in the same manner endeavouring to assist the students in that city. But what I contend is, that these lectures, which are necessary to qualify, more especially army and navy surgeons, ought to be given in a complete and consecutive manner, and at the expense of the Government. (Hear, hear.) I believe I am correct in saying, that there is no other Government in Europe which does not provide medical schools for the instruction of the medical staff of its army; and yet this country, which is so deeply interested in the subject, and whose armaments in every region and climate of the world has hitherto been wholly negligent in regard to it; and hence the calamitous results, in the enormous loss of life our military services have on various occasions experienced during past wars. The Right Hon. gentleman has referred to the health of the British army during the last year, and has shown that, with a few exceptions, in most of our military stations the rate of mortality has considerably decreased as compared with the average of previous years. Now, although I think the result of one year is not to be relied upon altogether, there can be no doubt that a great improvement has been going on in the sanitary condition of the people, military as well as civil, and that the Government have of late years directed their attention with advantage to sanitary matters generally. (Hear, hear.) But still I say, that, for want of that instruction, which ought to be given by the Government to the medical officers of the army, the country has on various occasions suffered severe loss, both in money and life. (Hear.) In India and China the mortality in our army, consequent upon diseases incidental to the climate, have, in some instances, been enormous. At Walcheren, the indifference of the Government, and the consequent deficiencies of professional measures of prevention, were certainly more conspicuous and calamitous than we have any reason to apprehend at the present time. Ten thousand men died in hospital during that short operation, and more than half the remainder were rendered inefficient, and this was certainly one of the causes of the total failure of an expedition which cost an almost incredible sum—many millions. In the last Burmese war, to which the Right Hon. gentleman has alluded, for want of proper precautions on the part of the Government, and of necessary means on the part of the medical staff, the mortality from disease was more—enormously greater—than the loss in the field, in the proportion of twelve to one. We are informed that, to a great extent, this unnecessary and grievous sacrifice of life has been avoided in the present war by the judicious precautions of the Governor-General of India. But recent accounts, I regret to hear, seem to diminish our ground for congratulation on this head in regard to that contest. But even when we look to the results in the great Peninsular War, we shall find similar cases producing similar lamentable effects, which might at all events have been greatly alleviated. The historian, Napier, comments on this topic in strong terms; and, although that army was probably the ablest commanded and most abundantly supplied of any that we have ever had in the field, the sick lists numbered, at half a dozen different periods, as many as from 12,000 to 17,000 men. Then the sanitary state of our barracks has been much neglected, and I was glad to hear my hon. friend the Member for Montrose express the opinions he has done to-night on that subject. The accommodation provided for the troops in many of the barracks is wholly insufficient, too little care being taken for their comfort, their health, and even the feelings of decency, especially respecting the marine soldiers, inadequately regarded. My hon. friend (Mr. Hume) has quoted an instance in the barracks at Plymouth; and in his appeal to the Government to make an exertion to remove the defects of which he has complained, I heartily concur. I know of no more important object for those who have the management of our military forces than the sanitary condition of the troops. The garrison of Jamaica, we are informed, is at this moment suffering more severely. For forty or fifty years the necessity of adopting measures of precaution in that island was pressed upon succeeding Governments, and particularly, but in vain, by the most eminent professional man of that day, Dr. Robert Jackson. (Hear.) Undoubtedly a great improvement has taken place lately in Jamaica, in regard to the locality of the barracks. But that melioration is, I am

sorry to say, in no way due to the foresight or true economy of the home Government. It is solely attributable to the enlightened and generous determination of the late Lord Metcalf, when governor, to effect the improvement, even at his own pecuniary risk, and for which, instead of receiving the thanks, he incurred the censure of the Treasury of that day. A consequence is, that, instead of the present heavy loss of forty-five in the thousand for the last year, judging by the past, the casualties would now be in a far greater proportion than they are,—probably 140, as formerly. What I want is, that the medical officers of the army and navy should have such instructions during their studentship as are necessary for their guidance when called upon to take charge of the health of troops at home or abroad. (Hear, hear.) I am aware it may be said, that no man can be appointed until he has passed a medical examination; but it is well known that a system of cramming exists, by means of which students are enabled to pass that ordeal, though they may possess but little solid information. Under the existing system, it would really seem that the Government were more careful of the health of the horses of the army than of the men; for there is a Professor to instruct those who have the care of the horses of the artillery and the cavalry, though none seems deemed necessary for our soldiers and seamen. On the ground of good feeling towards the army and navy, if on no other, I do think some assurance should be given by the Government, that the matter to which I have drawn their attention shall be considered. (Hear, hear.) I could enter into the subject at much greater length, did I think it necessary to do so; but I will not trouble the House further. I hope I have said sufficient to induce my Right Hon. friend to turn his attention to the matter; and that he will not overlook those many details which bear upon it, and show the importance of dealing with it, even upon a more liberal scale than I have suggested—(hear, hear)—and I trust the result will be the speedy establishment of a real and efficient school of instruction, together with the transference of the museum to which I have alluded to some suitable place in London, where it may be accessible, and thus contribute to the advancement of science. (Hear.) When it is considered that the British army and navy in all parts of the world, including those of India, number not less than about half a million, and that about a million patients are treated in the hospitals, on an average, in the course of the year, it will be seen that it is essential on grounds of economy, for efficiency, for success in war, and even on the score of humanity, that every due opportunity for instruction should be given, to qualify officers who are to be charged with the performance of such important duties. (Cheers.) There is one point I have omitted. I should have stated, that so great is the anxiety with which the chief medical officers themselves regard that part of the subject respecting the removal of the museum, that they have entered into a subscription for the purpose of carrying out the object to which I have drawn the Right Honourable gentleman's attention. This subscription, however, which their disinterested public zeal has induced them to attempt, has, as might be expected, proved wholly inadequate, for this profession is far from affluent. But it is not, in truth, a professional question—it is a Government and a soldier's question!

Provisions for the Navy.—Above 700lb. of beef has recently been surveyed and condemned, which was sent to Sheerness by the contractor for the use of Her Majesty's navy. A quantity of vegetables in a putrid state was also condemned on survey at the same time.

Bloomingdale Asylum for the Insane, New York.—During the past year, 102 patients were admitted, 87 discharged, and 18 deaths occurred. 122 remained in the asylum January 1st, 1852, and 119 on December 31st, in the same year. The income of the charity during the year was 31,137 dollars, 47 cents, of which 5261 dollars were obtained by the sale of the farm produce. The expenditure amounted to 30,254 dollars, 6 cents. This asylum is connected with the New York Hospital, and is under the direction of the same general officers. In the lunatic asylum, Blackwell's Island, there were 517 patients on the 31st of December, 1851, and 495 admitted during 1852. Of these, 355 were discharged in the course of the year, and 130 died, 527 remaining in the asylum on December 31st, 1852.

GENERAL CORRESPONDENCE.

CHLOROFORM IN SYMPATHETIC VOMITING.

[To the Editor of the Medical Times and Gazette.]

Sir,—I dare say that many of your readers, like myself, have felt their remedies for the relief of sympathetic vomiting rather circumscribed. The medicines in ordinary use may be classed under two heads. They are either powerful local stimuli or direct sedatives. Amongst the first we may reckon carbonic acid (whose stimulating effect on the mucous membrane is shown by its powerful action on the throat during deglutition), creosote, naphtha, brandy, and the like; amongst these creosote has long been most popular, but it is disagreeable in its smell, unpleasant in its taste, and, if it does not check the vomiting at once, the return taste in the mouth is so nauseous that our patients with difficulty persuade themselves to take another dose. I beg to suggest chloroform in its place—three or four drops, or more, well shaken up with water, are sufficient for a dose. I do not know whether the suggestion is new, it was forced upon me by circumstances. A friend came to visit us across the sea, suffered urgently from sea sickness, which continued long after her arrival to such an extent that any motion of the body produced vomiting. Not having anything else in the house but chloroform, I gave some of that, and was gratified to find that its success was immediate. The next case was one occurring in the practice of a friend, where the vomiting had been kept up incessantly for three days, and where creosote had been unavailing. The vomiting was partly due to an overflow of bile, and partly to pregnancy; it continued, however, after the flow of bile had ceased, and was beginning to weaken the patient materially. The first dose of chloroform (five drops) checked the vomiting for six hours; there was then a slight repetition of the sickness, which, however, disappeared entirely after another dose.

The next case was one of vomiting from disorder of the liver. The first dose put a stop to the sickness, and had not to be repeated.

My next experience was in the case of the lady I first mentioned, who found it useful in preventing sea-sickness.

I have induced some of my friends also to try it, and they give an equally favourable report concerning it.

Its chief advantages over creosote are, its pleasant taste in the mouth as it goes down, and its not unpleasant flavour if it comes up again. The only point requiring attention is, that the mixture must be well agitated immediately before being taken, as the chloroform rapidly falls to the bottom of the spoon or glass.

I am, &c.

Liverpool. Thomas Inman, M.D.

[The administration of chloroform in cases of vomiting is not new. We have frequently used it in such cases ourselves, and can confirm the favourable opinion of its efficacy expressed by Dr. Inman.—Ed.]

UTERINE HYDATIDS.

[To the Editor of the Medical Times and Gazette.]

Sir,—I have read with much interest Dr. Ramsbotham's "Cases of Uterine Hydatids," in your last Number, and believe my experience will furnish data for the distinction he inclines to make between clusters of vesicles having in them a glairy fluid, and cysts of a larger size and separate, having in them a limpid fluid; and which last his own experience does not enable him to comment upon. Some time ago I adverted to both such forms of uterine egesta, I believe in your Journal, for the purpose of eliciting information; and I will now, if you think the insertion worth while, repeat the facts which bear upon this inquiry. Several years since I was engaged to attend the wife of a commercial traveller, and at the supposed time of labour was summoned. After a little time, I was hastily called from the parlour to the bed-room, to witness what appeared to be the immediate expulsion of the child; when to my surprise, an immense aggregated mass of hydatids was the result. So far I only add another instance to Dr. Ramsbotham's cases; and my patient did well. Within the last two or three years I have had two cases of the cyst kind; and the three cases together make up the full amount of such in a practice of thirty years, enumerating upwards of two thousand midwifery cases, so that these peculiarities are by no means common. Three years ago I attended a tradesman's wife with her first child, who did well. Three or four months afterwards I was sent for, and found her suffering strong uterine pains, which looked very like impending miscarriage. Soon after, she expelled a thin, pellucid cyst, holding at least half a pint of watery fluid, and having at its

fundus a tuft of ragged-looking fibres, which, I presume, must have been its medium of attachment with the uterus. This woman cast off a smaller cyst of the same kind a day or two after, and did well. Another—the second case of cyst—is that of a lady I have attended in several cases of fast-succeeding labours, which have reduced her health greatly. After the last occasion, she suffered premature returns of catamenia with much pain, and menorrhagia, and, on many occasions, just after the period, expelled one, two, or three of the aforesaid cysts, varying in size from a walnut to a pullet's egg. This lady, from the enfeebled state of her health, consequent on trying confinements, now, by advice and mutual conjugal understanding, avoided all cause of impregnation since the last child, two years or more; so that it may be necessary to observe, sexual communication could have no part in the condition of uterus producing this malady. For the last several months there has been no cyst, and the uterus has been in a more normal state, which I attribute in a great measure to the steady continuance of an injection daily of solution of alum, except at menstrual periods. It may not be superfluous just to mention, that the three women named are all persons of a flaccid, soft fibre, disposed to a fatty plumpness, and not possessing healthy vigour and tone of system. I am, &c.

AN OLD PRACTITIONER.

THE CERTIFICATE SYSTEM AND CHAPLAINS.

[To the Editor of the Medical Times and Gazette.]

SIR,—I am chaplain to an hospital, to which is attached a large medical school, containing some hundreds of students. My duties are to visit the sick, to comfort them when in pain, and to perform over them the last duties when dead. For this I entered holy orders. I am aware my taste is not popular, and I hardly expect to rise high in my profession, though, God knows, I want preferment, for others' sake more than my own.

Yesterday, a medical student, personally a stranger, asked of me a certificate as to his moral character during his residence in London. I told him I knew him not, although I had often seen his face in going my rounds. I knew nothing whatever of his habits. "Sir," he replied, "I have offered me an appointment worth 200*l.* a-year. I have shown the highest testimonials from my professional teachers, but the patrons of this gift require a certificate of moral character from a clergyman. Unless you give me one I have no chance of success. 'Tis a matter of form, for no one can expect you to know the habits of an indefinite number of young men living indiscriminately in the metropolis." I could not refuse him the request; and I expect that for the future I shall have yearly to choose between asserting, falsely, I know that which I do not know, or injuring youths, perhaps of the highest worth, by refusing a certificate to which a more intimate acquaintance would have entitled them.

I am, &c. A CHAPLAIN.

SURGEONS TO EMIGRANT SHIPS.

[To the Editor of the Medical Times and Gazette.]

SIR,—Having witnessed your exertions in behalf of the Medical Profession, I have been long expecting to see your attention turned to the advantage which may be had from supplying emigrant ships with surgeons, if the members of the Profession were only properly roused to a feeling of their own importance, and taught to consider their services of some value to themselves as well as to those who are willing to avail themselves of them. Formerly, the number of vessels requiring surgeons was limited, and many wishing to emigrate were willing to give their services for a passage, or perhaps a trifling consideration more; now, it seems to be an extensive and most important branch, by which more employment will be given than our navy gave in either peace or war; and it requires some understanding to be arrived at as to what would be a compensation for which a respectable "qualified surgeon" should give his services. I have no data from which to estimate correctly the number of vessels obliged to carry surgeons; but, from the number advertised to sail monthly, there would appear to be not much less than two hundred from the different ports of the United Kingdom, and of these from a-third to a-half of the surgeons emigrate with no intention of returning to this country; and of those who do, it will require, say, eight months from Australia, and two or three from America, so that it would require a supply for six months, or twelve hundred, if I am right in the number of vessels, independent of those who would not return. This becomes a serious matter, and one of vast consequence, whether these gentlemen are to reap the proper reward of their labours, anxiety, and responsibility, or if they are to be the slaves of the shipowners, who are certainly not to be blamed to take cheap service if they can get it; but I wish you and the other respectable journalists to throw your protecting shield over those high-minded and well-educated members of our Profession who have not sufficiently considered that their exertions on behalf of their suffering fellow-creatures may be equally efficient, if they are fairly remunerated for their services. Is it reasonable that a shipowner who receives his forty, fifty, or even ninety pounds for a passage, with a guinea to the steward, is to expect the services of an educated professional man for a sum less than he pays to his cook or common sailor? He should not, and he does not expect it to continue. But, so long as he can get supplied with "qualified surgeons" for adding to his advertisement, "a free passage will be given to a qualified surgeon," he is not to be blamed for doing it. I would be glad to see some plan digested, by which a *minimum rate* of remuneration would be fixed on, below which no respectable medical man would serve; and, as no vessel with 100 or upwards can sail without a surgeon, any reasonable terms will be readily acceded to. In the emigrant ships sent out by Government, a fixed sum per head is paid for every one landed,—I believe 10s. 6d.,—and I should think private passengers who are able to pay large fares should not be less. Or, let a surgeon be attached to each vessel, receiving pay *not less* than he would in the navy, because in the latter service he will be entitled to a retiring pension, etc., which he cannot expect in private ships. Some understanding should be arrived at by the Profession, and adhered to, and I throw out these hints without entering into details, which will be done so much more ably and efficiently by the Press, which is the proper protector of the rights of its members. You have, and with partial success, advocated the cause of the assistant-surgeons of the navy, and I would suggest that, by establishing the passenger navy as a rival service, and making it as good an opening for a young surgeon, you will enable him to say, even to the Lords of the Admiralty, "Unless I am treated as a gentleman, and such accommodation afforded as Parliament has ordered, I will be satisfied with the mercantile navy." In this way assistants might become scarce, and, consequently, receive rather more attention from my Lords.

Hoping that you may think it worth your consideration, and knowing that in your hands some practical suggestions may be given which will rescue from imposition some of the most deserving members of society, I am, &c.

A CONSTANT READER OF THE "MEDICAL TIMES AND GAZETTE."

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

ANNIVERSARY MEETING.

The anniversary meeting of the Society was held on Tuesday, March 1, at 4 p.m., the President, Mr. Hodgson, F.R.S., in the chair.

Before the officers and members of the Council were ballotted for, Dr. Connor inquired whether any rule existed by which any gentleman admitted as Fellow of the Society was debarred from attaining in due course the honours of office, and from holding those appointments which were justly esteemed to confer distinction on their recipients. He asked this question, because he saw by the ballotting list that a distinguished Fellow of the Society had been passed over in the selection of Councillors for the ensuing year, apparently without just cause.

The President observed, that none were eligible to sit in the Council of the Society unless they possessed an English qualification. The gentlemen whose names were on the ballotting list had been selected by the Council as being best fitted to administer the affairs of the Society; it was, however, in the power of any member to vote against them, and, if any of them were rejected, the Society must, of course, set forward others. He certainly considered that there were some Fellows who, for many reasons, were not exactly adapted to discharge the duties which a share in the management of the Society entailed, and he thought the duty of selecting officers might be wisely left to the Council, as heretofore.

The ballotting then commenced, and continued for an hour, at the conclusion of which the box was closed. After the scrutiny, the following gentlemen were declared duly elected to fill the offices of the Society:—President: Dr. Copland, F.R.S. Vice-Presidents: Drs. Alderson and Barker, Mr. Martin Ware and Mr. Benjamin Phillips. Treasurers: Dr. Nairne and Mr. Richard Quain, F.R.S. Secretaries: Dr. William Basham and Mr. Holmes Coote. Librarians: Dr. Pitman and Mr. James Dixon. As other members of the Council: Dr. Addison, F.R.S., Dr. Balfour, Dr. Child, Dr. Chowne, Dr. Crawford, Mr. Bowman, F.R.S., Mr. French, Mr. Ranald Martin, F.R.S., Mr. Stanley, F.R.S., and Mr. Tatum.

While the ballotting was going on, the reports concerning the state and prospects of the Society and its financial circumstances were read, adopted, and ordered to be circulated. The receipts during the past year amounted to 1,626*l.* 19s. 1d.; and the disbursements to 1,382*l.*, and a few shillings. More than 200*l.* had been invested by the Treasurer in Government Securities; and the Society was declared to be quite free from debt, and in a highly prosperous condition. Upwards of ninety new Fellows had been admitted during the past year, and the volume which had been last published was stated to be larger than usual, and to form a valuable addition to the Transactions of the Society.

Prior to the adoption of the Report of the Council, Dr. Charles Hawkins offered some observations on the present system of ballotting for Fellows, which he said was objectionable, as, owing to the system of taking the candidates collectively, and voting for them in the mass, a gentleman might be black-balled unjustly, or admitted to the Fellowship of the Society without a satisfactory knowledge being possessed by the voters as to his suitability to acquire that distinction. He thought it would be much better to take the votes for each candidate individually, and suggested that the Council should be requested to take the matter into their consideration.

The question thus opened elicited some little discussion, in which Mr. De Morgan, Mr. Arnott, and Mr. Richard Quain joined. It appeared that there was a by-law in the charter, which enacted, that four-fifths of the members present at any meeting must vote in favour of a candidate to ensure his admission; so that, as Mr. De Morgan remarked, not voting at all was tantamount to black-balling. It was at length decided to refer the matter to the consideration of the Council, the prevailing opinion appearing to be, that, under their auspices, the existing system might be modified with advantage.

The President congratulated the Fellows on the flourishing condition of the Society, and said, it was a source of great gratification to him, when relinquishing the Presidential chair, to feel that the Society had, in every respect, maintained its high position, and that its affairs presented an aspect as favourable as when he first assumed the honourable duties of his office. The President then passed in successive review the career of those eminent Fellows of the Society who had been removed by death during the period of his office, including Mr. Vincent, Mr. John Dalrymple, Mr. Herbert Mayo, and Dr. George Gregory, Dr. Bruce, Dr. Pereira, Dr. John Taylor, and Dr. Merriman.

Dr. Mayo proposed, and Mr Stanley seconded, that the thanks of the Society should be accorded to Mr. Hodgson, for the ability and zeal with which he had presided over the affairs of the Society during the two years of his presidency.

The proposition was carried with unanimous approbation.

Mr. Hodgson thanked the Fellows most sincerely for the kind approbation expressed by them for his exertions on behalf of the Society, and observed, in allusion to the origin of Medical Societies, and the purposes for which they were instituted, that the first Medical Society having objects similar to their own, was founded at Bologna in the commencement of the 18th century. He then referred to the establishment of the Academy of Medicine and Surgery in Paris, and remarked, that the "Transactions published yearly by the Royal Medical and Chirurgical Society," were superior to any that emanated from similar Societies on the Continent, both as regarded practical value and the services which they rendered to humanity. Other English Societies, it was true, had been founded before the one whose presidential chair he was now on the point of resigning, but none were at all equal to it, either in the grandeur of their objects, or in the success and ability with which those objects were accomplished. It was a great satisfaction to him, in quitting the chair, to feel that it was to be filled by so excellent a physician, and so eminently scientific a man as Dr. Copland,—a gentleman who would be able to do more for the welfare of the Society than he himself had been able to accomplish.

Thanks were unanimously voted to the Secretaries and to the retiring members of the Council, after which the Society adjourned.

PATHOLOGICAL SOCIETY OF LONDON.

Dr. Babington, F.R.S., President, in the Chair.

Dr. Bristowe delivered, in behalf of Dr. Peacock and himself, a report on the specimen of fibrinous deposits in the spleen and lymphatic glands, exhibited by Dr. Markham at the Society's last meeting. The characters of the deposits were, in the opinion of Drs. Peacock and Bristowe, fibrinous, as Dr. Markham had stated.

Mr. Gray has neglected to send to the Secretary any account of a specimen of polypus uteri exhibited by him to the Society.

SCROFULOUS TUMOURS OF THE BRAIN.

Dr. Fuller exhibited a specimen of scrofulous tubercle of the brain, together with a kidney and a portion of the liver from the same patient. These specimens were taken from a woman, aged 41, who was admitted into St. George's Hospital on the 2nd of February, 1853. She was a thin, delicate-looking woman, and for many months had been subject to much privation. Her chief symptoms on admission were—pain in the hepatic region of two weeks' duration, with slight jaundice, extreme restlessness, constant nausea, and debility. The urine was albuminous, and the stethoscope revealed the existence of tubercles (not softened) in the lungs. Two days after her admission, she had two or three fits of an epileptic character, which left her almost unconscious, and partially paralysed on the right side. On the following day, the fits returned, and continued to recur at short intervals until the time of her death, which took place on the 9th inst. During the last three days of her life she lay in a state of coma, interrupted only by the fits. The body generally was emaciated. The lungs, more especially the left, contained some masses of greyish-black tubercles, one portion of which, about the size of a pea, in the left lung, had begun to soften. The heart was flabby, soft, and, under the microscope, somewhat fatty; its valves were healthy. There was a large accumulation of fat, about an inch thick, on the anterior wall of the abdomen. The liver was of enormous size, extending down to the right iliac region, of a pale yellowish-white appearance; and, by the aid of the microscope, the hepatic cells were seen gorged with fat. The kidneys were granular; their cortical structure was shrunken; and their pelves filled by large masses of fat. The membranes of the brain were healthy; the brain itself was rather paler than natural, and extremely wet, a quantity of fluid escaping at each incision. The ventricles contained a small quantity of fluid. In the posterior lobe of the left hemisphere were two small scrofulous tubercles, one situated on the surface, the other about the centre of the lobe. The substance of the brain around these tumours was not softened, nor was there any evidence of their having given rise to any local symptoms. The points of interest connected with the case were, 1st, the curious accumulations of fat—the fatty masses which existed in the pelves of the kidneys, and on the anterior walls of the abdomen, coincidently with considerable emaciation of the extremities; 2ndly, the consideration as to what was the efficient cause of death. The existence of the tubercles in the left hemisphere of the brain, when viewed conjointly with the hemiplegia of the left side, might lead to the supposition that the head symptoms were referable to the presence of these tubercles. But the total absence of softening round the tubercles, and the state of utter inactivity in which they were found, coupled with the wet condition of the brain, and the disorganised state of the kidneys and other excretory organs, induced Dr. Fuller to regard a state of toxæmia resulting from the defective action of the diseased excretory organs as the true cause of the epilepsy, coma, and death.

Mr. Brooke exhibited a specimen of cancer of the rectum, but has furnished no abstract thereof to the Secretary.

MALFORMATION OF THE PULMONARY VALVES.

Dr. Hamilton Roe exhibited a specimen of contracted and adherent pulmonary valves, of which the Secretary has received no account.

Dr. Quain asked if the patient from whom the preparation had been taken was not, some years ago, under Dr. Baly's care, in the Milbank prison; for Dr. Baly had mentioned to him the particulars of a case very similar in its features to the one before the Society, in which the patient had been accustomed to take very active exercise, and even to perform pedestrian feats.

Dr. Hamilton Roe observed, that the case alluded to by Dr. Quain was identical with that brought forward by himself.

The President suggested that the preparation should be referred to Dr. Baly, in order to obtain from that gentleman some particulars of the previous history of the patient.

The heart was accordingly transferred to Dr. Baly, who will deliver his report at the next meeting of the Society.

Dr. J. W. Ogle drew attention to a

CASE OF FRACTURE OF THE LAST DORSAL VERTEBRA, WITH DESTRUCTION OF THE SPINAL MARROW.

The specimen showed extensive comminuted fracture, with displacement; and the entire diameter of the medullary canal was occupied by portions of the body of the vertebra, which were driven back into it, and firmly and intimately united together. There was, of course, rupture of the neighbouring ligamentous structures, with destruction of the medulla spinalis opposite to the fracture, by means of the comminuted fragments. The dura mater was entire. The specimen was from a man, who fell down a great height and pitched on his back. When removed from the ground, it was found that he had lost all sensation and mobility in the lower limbs. He was brought into the hospital, and it was then ascertained that he had lost all power over the rectum and bladder. Two days after his admission, alkaline urine made its appearance; and twelve days afterwards bed-sores came on. These increased, and he died of exhaustion consequent upon them, about eight weeks after the accident. The catheter was had recourse to daily, but he never at any time felt its introduction, and never at any time was anything like priapism excited by it or without it. Moreover, it was never possible, by tickling or pricking the skin of the feet or legs, to excite any involuntary or reflex motor actions, indicating the extent of the injury done to the spinal cord, the seat of the excito-motory system.

Dr. J. W. Ogle also presented a

SPECIMEN OF EXTRAVASATION OF BLOOD INTO THE SUBSTANCE AND UPON THE SURFACE OF THE BRAIN.

The brain was taken from a man aged 69, who had been the subject of two previous attacks of apoplexy. He went from home one morning to his work at about seven o'clock, and was found in the streets by a policeman, at nine o'clock lying quite insensible. He was removed to the police-station, and had emetics given to him, under the idea that he was intoxicated. Not being relieved, he was brought into St. George's Hospital at about twelve o'clock, and it was found that he was quite insensible and collapsed. He was making, as the nurse said, a very "curious noise in the throat," and had his eyes quite closed. There was no appearance of convulsive action in any part of the body. He had turpentine injections, and mustard poultices were resorted to, which caused him to move his legs and the left arm, but the right arm was never moved, and, until his death, remained perfectly contracted and rigid. Subsequently a blister was applied to the nape of the neck, and croton oil given to him. His bowels were freely opened, but he continued in the same comatose state till he died, twenty-nine hours after his admission into St. George's Hospital.

Post-mortem Examination.—The dura mater was firmly adherent to the calvaria in various places. Under the arachnoid membrane covering the upper and outer side of the right cerebral hemisphere was a thin layer of extravasated blood. This was also the case over the entire cerebellum and at the base of the brain. On section, the brain was found to be of diminished consistence, but the corpus callosum, the fornix, and all the structures bounding the lateral ventricles, were exceedingly softened; moreover, the ventricles were full of fluid and weakly coagulated blood, and had their septum destroyed. The blood had obviously poured forth from the left corpus striatum and optic thalamus, which, along with the outer wall of the left ventricle, were considerably broken down into a diffluent, shreddy substance. Many of the blood-vessels examined, especially those from the pia mater, had quantities of fat adherent to them, and, in many cases, also a number of red and reddish-brown coloured bodies, of various sizes and forms, having the appearance of being calcareous. There was a slightly fatty condition of the heart's fibres and of the kidneys, as seen by the microscope; also an atheromatous state of the coronary vessels of the heart and of the abdominal aorta.

MALIGNANT DISEASE OF THE CHEST.

Dr. Sieveking exhibited a specimen exemplifying this affection, accompanied by the following account:—The morbid parts were removed from George Copping, a shoemaker, aged 56, who died at Stoke Newington, while under the care of Mr. Toulmin, with symptoms of glandular disease and hydrothorax. Five weeks previous to last Michaelmas, (up to which time he was in perfect health,) he perceived a small tumour in the axilla; this gradually extended over the thorax, and he became an in-patient at St. Thomas's for this affection. While in the hospital some dyspnœa supervened, which became more and more severe until two days before his death, when it left him. Mr. Denny, the apothecary of the Stoke Newington Dispensary, examined him three or four days previous to the fatal issue, and found that there was no respiratory murmur on the right side, while that of the left thorax was puerile. At the time of his death the whole surface of the left thorax was tumefied and red, presenting here and there nodular masses; it was throughout very dense and hard; the tumefaction and hardness extended to the shoulder, and the whole arm below the deltoid was œdematous. On cutting through the tissues of the right thorax, they were found matted together; the muscular tissue was of great density, and in close connexion with a dense mass of whitish or roseate heterogeneous, lardaceous texture, binding it to the ribs. The growth infiltrated much of the muscular tissue, and the pectoralis minor seemed entirely converted into it. A similar substance, of the size of a fist, was found under the sternum, at the siphoid cartilage; and, from the middle of the sternum to the commencement of the trachea, and mounting up to the right clavicle, was a large mass of the heterologous formation, communicating, through the third intercostal space, with the external growth. The right pleura was found filled with serum so as to compress the corresponding lung to the size of a fist. No marked disease was discovered in any of the thoracic or abdominal organs, and especially was there no trace of a similar deposit found elsewhere. All the abdominal organs were enlarged; but neither in the liver, spleen, kidneys, nor mesenteric glands was any morbid growth. A large piece from under the pectoral muscle, examined carefully, exhibited a faint pinky-white colour, marked by lobules closely resembling those of the pancreas in size and consistence. Muscular fibres were seen shooting into, and lost themselves in the mass. Under the microscope it showed blood-vessels, and the muscular tissue, surrounded by the growth, partly retained its healthy appearance; but much of it, as well as that not in immediate contact with the sarcoma, was in a state of granular degeneration, and had entirely lost its striæ. The morbid growth was made up of oval corpuscles, varying in size from $\frac{1}{3500}$ to $\frac{1}{2500}$ of an inch, in diameter, and fibroid, elongated cells, as represented in the drawing. The former were partly homogeneous, but generally studded with minute glistening (oily) spots. Acetic acid produced no alteration in the appearance of the corpuscles. The growth in the anterior mediastinum, which was firmer to the touch, presented a more entirely fibrous structure than the mass underlying the pectoral muscles. Between the fibres similar corpuscles were seen as in the latter. (The mass, from having lain in chloride of zinc solution, has lost much of its original appearance.)

A pause ensued, and at length

The President observed, that as there were no specimens to be exhibited, the Society would be glad to hear any observations from the members respecting those that had already been placed before them.

Dr. Peacock asked Dr. Hamilton Roe whether any evidences of cyanosis were present in the case which he had brought before the Society of malformation of the pulmonary valves.

Dr. Roe replied that the patient had none of the appearances peculiar to cyanosis, but had a natural and healthy aspect.

Mr. Toynbee made the following observations

ON THE MODE OF DISSECTING THE EAR FOR THE PURPOSE OF PATHOLOGICAL INVESTIGATION.

The best mode of removing the ears for the purpose of dissection is, (the calvaria being sawn off in the usual way,) to take both out together by means of two transverse vertical sections. The anterior of these sections should pass in a line a little anterior to the anterior clinoid processes, and the posterior in a line through the posterior third of each mastoid process. By means of these two sections, the trumpet-shaped extremity of each Eustachian tube, a portion of the mucous membrane of the fauces, and the whole of the remaining portion of each organ of hearing, can be taken out. The disadvantage attendant upon this procedure is the disfigurement which is apt to take place by the falling backwards of the face. To avoid this disadvantage, another mode of removing the ears has been more usually resorted to, and this consists in taking out each petrous bone separately in the following manner:—The calvaria having been sawn off, an anterior section is to be made from without inwards on each side on the same line as in the first plan, but extending as far as, but not through, the body of the sphenoid bone; a posterior section on each side is then to be made in the same line as in the first plan, but not extending through the basilar process of the occipital bone; the apex of each petrous bone is then to be separated by a chisel or saw from the sphenoid and occipital bones; and each petrous bone, the outer ear and integuments being detached from it, is then to be drawn upwards, taking care to remove as much of the soft parts as possible. With this second plan, there is a difficulty in removing the

whole of the guttural portion of the Eustachian tube; with care, however, this may be effected, especially if the final sections separating the petrous bones from the occipital and sphenoid be made to pass obliquely from above downwards and inwards. The organ of hearing having been removed, the dissection may be conducted in the following manner. The auditory nerve in its meatus should be first carefully examined.(a) The external meatus is to be inspected by removing its anterior wall by means of cutting forceps.(b) The state of the epidermis, the ceruminous glands and secretion, the dermis periosteum and bone, are to be noticed. The outer surface of the membrana tympani is then to be examined, as well as the state of its epidermoid and dermoid laminæ, the degree of tenseness it possesses, and the amount of motion possessed by the malleus when it is gently pressed upon by means of a fine point. The next step is to examine the guttural orifice of the Eustachian tube, to lay open the cartilaginous tube with the scissors, and then to expose the cavity of the osseous portion by means of the cutting forceps. In doing this, the tensor tympani muscle is exposed; its structure should be examined, and, if it have not a healthy appearance, portions of it should be submitted to microscopic inspection. The upper wall of the tympanum is next to be removed by the forceps, in doing which great care must be taken not to disturb or disconnect the malleus and incus, which lie immediately beneath it. When the tympanic cavity is exposed, the first thing is to draw the tensor tympani muscle, and to observe to what extent its traction makes tense the membrana tympani, and moves the ossicles. The incus and stapes are now to be gently pressed with a fine point, so as to ascertain their degree of fixedness; the tendon of the stapedius muscle is also to be pressed. The condition of the mucous membrane of the tympanum and mastoid cells is next to be examined, and any peculiarity of the cavity, the existence of bands of adhesion, etc., etc., noted. The most delicate part of the dissection has now to be undertaken, viz., that of the internal ear. The first step consists in exposing the cavity of the cochlea and vestibule by removing with the cutting forceps a small portion of the upper bony wall of each. Before reaching the vestibule, the superior, semicircular canal will be cut through and removed, and the membranous canal should be carefully drawn out of it and examined. Upon inspecting the cavities of the vestibule and cochlea, it is desirable to see that the quantity of perilymph is natural, as well as its colour and consistence; the outer surface of the membranous labyrinth having then been looked at, it should be opened, so as to expose the endolymph and otoconeia, and portions of the membranous labyrinth should be submitted to microscopic investigation. This having been effected, the remaining membranous semicircular canals are to be exposed, and the connexion of the base of the stapes to the fenestra ovalis carefully examined. The last stage of the dissection consists in removing portions of the cochlea, in examining them microscopically, and in exposing from within, by following the course of the scala tympani, the membrane of the fenestra rotunda. The only organ which now remains unexamined is the stapedius muscle; to expose it, the course of the aquæductus Fallopii, beginning at the stylo-mastoid foramen, should be followed until the base of the pyramidal eminence containing the muscle is reached.

The President inquired whether Mr. Toynbee had noticed a thickened condition of the semicircular canals as often associated with deafness.

Mr. Toynbee had seen it only in one or two cases, and in those the patients were not only deaf, but dumb also.

Dr. Crisp believed that white cats with red eyes were usually deaf; he was not, however, acquainted with the cause of their deafness.

The Society adjourned at the usual hour.

(a) It is desirable to remove for examination the part of the base of the brain to which the portio dura and portio mollis nerves are attached.

(b) It is requisite to have two or three pairs of these forceps; they are made by Messrs. Ash, of Broad-street, Golden-square.

The Weather in February.—The following is a Table of the weather at Woolwich in the month of February in the years 1850, 51, 52, and 53:—

Years.	February.			Mean Temperature of the Month.	Days of Frost in the Month.	Number of Days of Snow.	Number of Days of Rain or Sleet.
	Max.	Min.	Extreme Range Fahr.				
1850	56	33	23	45·43	Nil	Nil	11 days
1851	54	30	24	41·51	Six	One	7 ,,
1852	55	30	25	41·40	Six	One	9 ,,
1853	43	26	17	35	Thirteen	Twelve	5 ,,

MEDICAL NEWS.

The Levee.—The following presentations took place on Wednesday:—Dr. Charlton, surgeon, R.N., on return from foreign service, by Sir Wm. Burnett; Dr. Holland, on his appointment as Physician in Ordinary to Her Majesty, by the Earl of Aberdeen; Assistant-Surgeon H. James, on his appointment to the Royal London Militia, by Col. Wm. Thompson, M.P. Among the general circle there were present Sir Charles Aldis, Drs. Richard Bright, James Millar, — Gillkrest, R. B. Todd, and W. H. Ashley; and Mr. White Cooper, and Mr. G. Borlase Childs.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, 24th February, 1853:—

Carter, William, Catterick, Yorkshire.
Hulke, John Whitaker, Deal.
Leack, Richard, Lancaster.
Moor, William Henry, Durham.
Staniland, Samuel, Leeds.

APPOINTMENTS.

Medical.—Mr. J. D. Cleaton, House-surgeon to the County Asylum at Lancaster, has been appointed Medical Superintendent of the Lancashire new County Asylum at Rainhill, near Liverpool.

Naval.—Surgeon John F. Charlton, M.D. (1845), to the Phœnix. Assistant-Surgeon John R. Holman (1847), recently serving as additional assistant-surgeon in the Portland, 50, flag-ship on the Pacific Station, to the Phœnix. Surgeons Archibald Elliott, M.D. (1851), and John C. Sabben (1851), additional to the Victory, flag-ship at Portsmouth. Assistant-Surgeons Thomas Seccombe and Henry Slade to be surgeons. Assistant-Surgeon John F. Johnson to be surgeon when qualified.

Military.—Hospital Staff.—Inspector-General Andrew Smith, M.D., Superintendent of the Army Medical Department, to be Director-General of the Army and Ordnance Medical Departments. Charles Benjamin Mosse, gent., to be Assistant-surgeon to the Forces, vice Alexander Robertson, M.D., who resigns.

Militia.—Tower Hamlets.—Theophilus Caractacus Lewis, M.D., to be surgeon.

Indian.—Dr. J. McLelland has been appointed Officiating Superintent of Forests in Pegu. Dr. D. T. Morton, of the Madras service, has been appointed Assistant-Commissioner at Rangoon, under the Commissioner at Pegu. Assistant-Surgeon W. E. Cameron has been appointed Civil Surgeon at Rajkote.

PROMOTIONS.

Naval.—In consideration of the successful operations against Rangoon and Pegu, and in the Irrawaddy river, the following promotions have taken place, dated Feb. 25:—To be surgeons: Mr. Thomas Seccombe and Mr. Henry Slade, assistant-surgeons; —also, (dependent on passing the required examination,) Assistant-Surgeon Mr. John Felix Johnson, to be surgeon.

DEATHS.

Bryant.—Feb. 27, at Acacia-road, St. John's-wood, aged 77 Edward Bryant, Esq., M.R.C.S. Eng. 1801.

Charlesworth.—Feb. 21, at Lincoln, Edward Parker Charlesworth, M.D., aged 72; M.D. Edin., Senior Physician to the County Hospital, to the Lincoln Lunatic Asylum, and to the General Dispensary; author of "Remarks on the Treatment of the Insane," 1828.

Gordon.—Feb. 26, at Elizabeth-terrace, Westbourne-park-road George James Gordon, Esq., formerly of the Bengal Medical Service, aged 67.

Marwood.—Feb. 23, at Mount Pleasant, Liverpool, aged 69, Mr. Richard Marwood, surgeon.

Matheson.—Lately, whilst proceeding to Bangalore, Dr. Matheson, of the Madras Establishment.

M'Culloch.—Feb. 20, at Duke-street, Liverpool, aged 61, Samuel M'Culloch, Esq., M.R.C.S. Eng. 1812; late senior surgeon to the Liverpool Dispensary, and Consulting Surgeon to the Liverpool Fever and Workhouse Hospitals; Corresponding Fellow of the Medical Society of London. In his youth, Mr. M'Culloch served in Spain, in the Duke of Wellington's army, as assistant-staff-surgeon to the Royal Horse Artillery, and afterwards with the army on the Canadian frontier. After the close of the war, he practised as a surgeon at Liverpool, where his honourable and amiable character and his professional skill secured him the respect and sincere regard of all who knew him.

He died, after a few days' illness, of a disease of the lungs, produced by exposure to the weather in the course of his professional duties.

Newell.—Feb. 8, after a long and painful illness, James Edward Newell, Esq., surgeon, Bridgnorth, aged 37.

Pocock.—Feb. 25, at Exeter, John Innes Pocock, jun., late of Winchelsea, Sussex, surgeon, after a long and painful illness, in his 34th year.

Robinson.—Feb. 19, at Uckfield, aged 38, Surgeon-Major W. T. C. Robinson.

Robson.—Feb. 20, at Edinburgh, Dr. William Robson, late Physician to the Forces. He entered the service in March 1805, and served in the Peninsula from Dec. 1811, to the end of the war in 1814, and received the war medal with one clasp for Badajoz.

Steed.—February 25th, aged 70, George Steed, M.D., of Portland-place, Southampton. M.D. Edin., 1825; M.R.C.S. Eng., 1803; Physician to the Royal South Hants Infirmary; formerly Surgeon in the army.

Wright.—Feb. 18, after a long and painful illness, aged 50, Mr. John Wright, surgeon, of Nottingham, M.R.C.S. Eng. and L.S.A., eldest brother of Dr. Wright, of Birmingham.

The Naval Assistant-Surgeons.—The *United Service Gazette* says, that "Sir William Burnett has not two eligible candidates on his list."

Pensions.—Indian Army.—Surgeon Robert Davidson, of the Madras Medical Establishment, has been permitted to retire from the service of the East India Company, on the pension of his rank, 700*l.* per annum, dating from the 31st of December last. Large annuities on the Madras Medical Fund were granted on the 14th of January, this year, to Physician-General R. Davidson, Surgeon R. Wright, M.D.; and Dr. H. C. Ludlow (a retired member on a small annuity), and the established small annuity to Mr. J. Gill (a retired surgeon), and the liberated small annuity to Veterinary-Surgeon T. Hagger.

The Caffre War.—The following is an extract from His Excellency the Commander of the Forces, in acknowledging the services of the military in a late engagement with the Basutas:—"To the medical officers—Dr. Booth, surgeon 73rd Regiment; Dr. George, assistant-surgeon 12th Lancers; and Staff-Assistant-Surgeon Dr. Campbell—His Excellency's thanks are due for the care of the wounded."

King's College.—The old students of this Institution will learn with regret, that Dr. Todd has resigned the Professorship of Physiology. Appointed to the chair in 1836, this gentleman has long been regarded as one of the main props of the medical school, and doubtless would have remained so, did not the increasing cares of a very large private practice demand almost all his time and attention. The Council of King's College are, however, to be congratulated, inasmuch as Dr. Todd will continue to hold his appointment as Physician to the hospital connected with this school, and will continue to give clinical instruction. As a matter of course, Mr. Bowman, who for the past three or four years has held the Professorship jointly with Dr. Todd, will be offered the vacant chair. There is a rumour, however, for the truth of which we cannot vouch, that this gentleman's time is so fully occupied, that it is very doubtful whether he will accept the appointment, or whether he will even retain the post he now holds. Should such prove the case, a vacancy will occur, to fill which the best physiologist in the country may aspire.

Middlesex Hospital.—The appointment of an assistant-surgeoncy in the East India Company's Service, presented to the Middlesex Hospital by W. H. C. Plowden, Esq., has been awarded by examination to Mr. W. H. Rean, the present senior house-surgeon.

Medical Benevolent Fund.—At a meeting of the Committee, held on the 22nd of February, letters of acknowledgment of the receipt of grants having been read, Mr. Toynbee reported that the 10*l.* placed in his hand for the benefit of a poor medical man, who, with a wife and four out of five children, were destitute, had been applied by him as follows:—Six shillings and sixpence was paid for an advertisment, through which a situation had been obtained for the father, capable of supporting all his family. The remainder of the sum of 10*l.* had been devoted to starting them again in a home. There was a balance still due to the treasurer. The treasurer reported that a draft deed of the gift of the six houses mentioned at the previous meeting was in his hands.—Case 1. The widow of a medical man, who died many years since, and who has educated her two children, the one being a medical student, the other a governess. Her sister, who had assisted her, had lately died. Voted 10*l.*—Case 2. The widow of a medical man, aged 48, supporting herself and five children, by teaching at a school. Voted 10*l.*—Case 3. A physician in very distressed circumstances, having been unable to succeed in practice, with a wife and eleven children dependent upon him, is anxious for aid to assist him in emigrating to Australia. Voted 30*l.*—Case 4. The wife of a medical man, with three sons, whose health had slowly declined for some years, and who had lately become insane. Voted 10*l.*—Case 5. A physician in a country town struggling to establish a practice. Voted 5*l.*—Case 6. A medical man practising in the country, having five children, and in considerable difficulty. Voted 5*l.*—Case 7. A medical man of great literary attainments, who has undergone great trials, and whose health is now very bad. Voted 10*l.*—Case 8. The widow of a country surgeon, aged 63, is entirely dependent upon her children, who are unable to support her. Voted 10*l.*—Case 9. The wife of a surgeon, she being partly blind, he being insane, having two children dependent upon her for support. Voted 10*l.*—Case 10. The widow of a medical man, destitute on account of the small sum left her by her husband being detained in a foreign land. Voted 10*l.*—Case 11. The widow of a young medical man, having two young children to support. Voted 5*l.* Sums received since last month:—Donations, 92*l.* 11s.; subscriptions, 35*l.* 19s. 6d. Among the names of the donors is that of Dr. Silver, of Addison-road, who has contributed the liberal sum of seventy-five guineas.

Sanitary.—The day of the reformer always comes at last; and to Mr. George Alfred Walker, the churchyard reformer, it has been permitted to witness, during his lifetime, the triumph of his cause. Long and persevering and disinterested have been his labours, and fierce and bitter were his opponents; but not a whisper of opposition or dissent was heard in the House of Commons, on the 11th inst., when the Home Secretary, Lord Palmerston, proclaimed the graveyards of London to be—as Mr. Walker has year after year asserted—a disgrace to the metropolis of the empire—a pest and a nuisance to be tolerated no longer. The upholders of these abuses have their prototype in Shakspeare's gravedigger. He, like other churchyard officials, compares the graves to "a house lasting till doomsday;" while, at the very moment, he is ejecting "poor Yorick" and other tenants, to make room for newcomers! In most of our large towns, it is only in name that the dead "rest" in consecrated earth.—*Gateshead Observer.*

Application of a Curious Physiological Discovery.—M. Roulin has lately speculated on what might be the consequences of administering coloured articles of food to silkworms just before spinning their cocoons. His first experiments were conducted with indigo, which he mixed in certain proportions with the mulberry-leaves serving the worms for food. The result of this treatment was successful,—he obtained blue cocoons. Prosecuting still further his experiments, he sought a red colouring matter, capable of being eaten by the silkworms without injury resulting. He had some difficulty to find such a colouring matter at first, but eventually alighted on the *Bignonia chica*. Small portions of this plant having been added to the mulberry-leaves, the silkworms consumed the mixture, and produced red-coloured silk. In this manner the experimenter, who is still prosecuting his researches, hopes to obtain silk as secreted by the worm of many other colours.

Dispensaries of New York.—*New York Dispensary.*—This institution, established sixty-two years ago, in 1790, has a medical staff of twenty-six officers, *i. e.*, an apothecary, two house-physicians, six consulting physicians and surgeons, six district physicians, five attending physicians for the male side, and five for the female side, and also an assistant apothecary. Of these the apothecary and his assistant, the house and the district physicians, are paid officers; the others are honorary. During 1852, 48,381 patients were seen and attended to, 2815 persons were vaccinated, and there were 6948 cases of minor surgery. During the year 1851, the number of patients was 54,462, of whom 21,521 were males, and 28,941 females, being an increase of 9627 over the number in 1850. Of these, 7411 were natives of Ireland, 7141 of the United States, 247 of Germany, 204 of England, 93 of the British Colonies and Scotland, and 321 from other countries. For the year 1852, exact accounts in that respect have not been obtained, but it is believed that the proportion of applications from foreigners has increased materially.—During the year ending April 1st, 1852, 21,941 persons applied for medical relief at the *Northern Dispensary*, New York. With reference to this charity, it may be said, that in the Directors' Report it is stated, that "the name of Jenny Lind would, as a matter of course, have appeared in our list of subscribers, but, on referring to our act of incorporation, it was found that 'that honour was allowed only to the lords of the creation.'" This charity is very poor; its expenditure somewhat exceeds its income.—The *North-Western Dispensary*, more recently esta-

blished than the preceding, reports that, during the year 1852, there have been treated 7955 out-door patients, 1293 vaccinated, 118 sent to hospital, 124 died, 17,761 cured, relieved, or discharged,—total, 19,352. Of these, 877 were diseases of the skin, 494 of the eye or ear, 1793 of the head or abdomen, 1101 of the heart and lungs, 1484 surgical, 1989 minor surgery, and 2361 women and children.—The *Coloured Home*, instituted, as its name implies, for the reception and relief of the varieties of the negro race, is a kind of workhouse, and contains about 250 inhabitants, 84 males, and 166 females, including about 30 children. At the close of the year, 28 males and 25 females were in hospital, 9 males and 12 females being out-patients. There were during the year 430 admissions, 128 deaths, 40 births, etc. The large mortality is accounted for by the very great number of aged persons in the Home, and that many are admitted in a dying state. During 1852, five persons died there, being respectively 90 years old and upwards; the number of deaths, however, is said to be less than in former years. Old age, phthisis, and paralysis are the chief causes of death among the adults; hydrocephalus among the children. The Home, which was established in 1839, is under female management. Dr. Fitch is the resident physician.

Mortality Notabilia.—The return for the week ending last Saturday exhibits an increase, though not considerable, on the high mortality of the preceding week. The deaths registered last week amounted to 1344, of which 541 occurred from birth to 15 years of age, 427 at 15 and under 60 years, and 359 at 60 years and upwards. The proportions at these three periods of life vary in very trifling degrees from those of the preceding week; but it may be mentioned, that among persons dying under 60 years there is a slight increase, while the number of those who died at that age and upwards is diminished. In the ten corresponding weeks of the years 1843-52, the average number of deaths was 1053, which, if a correction is applied for increase of population, gives a mortality for last week amounting to 1158. The actual number of deaths in last week, therefore, exceeds the estimated sum by 186. While epidemic diseases become less fatal, those which affect the respiratory organs manifest a great tendency to increase. In the last five weeks the cases falling under the latter head have been 199, 250, 312, 331, and 371. The increase is discovered under bronchitis, which carries off the old; the cases assigned to this complaint were in the same weeks 91, 110, 168, 184, and 212.

DEATHS *in the Metropolis for the week ending Saturday, February* 26, 1853.

Causes of Death.	Feb. 26. 0	15	60	All Ages.	Sum of Ten Weeks.
All Causes	541	427	359	1344	10534
Specified Causes	538	425	359	1326	10480
1. Zymotic (or Epidemic, Endemic, and Contagious) Diseases ...	158	33	10	201	2047
Sporadic Diseases:					
2. Dropsy, Cancer, and other Diseases of uncertain or variable seat ...	...	23	14	37	529
3. Tubercular Diseases	64	125	9	198	1799
4. Diseases of the Brain, Spinal Marrow, Nerves, and Senses ...	69	44	34	147	1253
5. Diseases of the Heart and Blood-vessels	3	23	30	56	383
6. Diseases of the Lungs and of the other Organs of Respiration ...	121	113	137	371	2079
7. Diseases of the Stomach, Liver, and other Organs of Digestion...	24	15	13	52	616
8. Diseases of the Kidneys, etc. ...	1	9	5	15	105
9. Childbirth, Diseases of the Uterus	...	10	...	10	106
10. Rheumatism, Diseases of the Bones, Joints, etc.	7	1	4	12	77
11. Diseases of the Skin, Cellular Tissue, etc.	1	2	2	5	11
12. Malformations	5	...	...	5	25
13. Premature Birth and Debility ...	36	...	...	36	250
14. Atrophy	26	2	9	37	199
15. Age	...	...	87	87	628
16. Sudden	5	1	1	7	119
17. Violence, Privation, Cold, and Intemperance	18	24	4	50	254
Causes not Specified	3	2	...	18	54

TO CORRESPONDENTS.

We intend shortly to lay before our readers a series of Lectures on the Diseases and the Functional Disorders of the Stomach. By George Budd, M.D., F.R.S.

Dr. Boon Hayes's Fourth Lecture will appear next week, together with a continuation of our series of articles on Drugs and their Adulterations. We hope also to be able to print Mr. Fergusson's Clinical Lecture, and Dr. Waller's Case of Cæsarian Section, in the same Number; but our correspondents must excuse us for occasionally delaying the appearance of their communications, owing to the excessively crowded condition of our columns.

Correspondence in reference to Dr. Boon Hayes's Lectures.

W. K. S., Ostend.—The question was answered in last week's Journal.

Dr. R., of Belfast, has been answered privately, as also *Mr. C., of London.*

Dr. Boon Hayes has received letters from several provincial opticians, whose names have not been mentioned in his Lectures, not, however, from any intentional neglect or censure, but simply, if the truth must be told, because he was not aware even of their existence. It is impossible, in lectures so *very elementary* as Dr. Boon Hayes's, to mention *every* supposed, or even real, improvement of various artists. *Stability, simplicity, compactness, and cheapness*, have been chief points insisted upon in the *mechanism* of the microscope; and the most accurate *defining* power with the *lowest magnifying* power, the chief points in reference to the optical construction of the instrument. Dr. Boon Hayes boldly asserts that both of these may be obtained in the cheap continental type of microscope, and maintains that it has yet to be shown that such a position in the slightest degree derogates from the real value of the most admirable English mechanical and optical departments of the instrument, as constructed by artists who need not his praise, but whose names are European. If the last part of the Third Lecture had been waited for, Dr. Boon Hayes would not have received *W. F.'s* letter. *W. F.* has thus far anticipated the whole subject.

A Subscriber, Essex.—Pillischer's, or Powell and Lealand's "Student's Microscope" will answer. About £7 : 7s.

E. H. Adams, Esq., Bungay, has been answered privately.

An Old Subscriber wishes to know whether a new patent medicine, called the "Phthisan," has been used at the principal institutions for diseases of the chest in the Metropolis, as is stated in the advertisements puffing it to the public. We can only regret that our friend has not read our Journal to some advantage, as well as subscribed to it. He might as well inquire if the moon really be made of green cheese, or whether Baron Munchausen's travels are literally founded on fact.

M.A. (Oxon).—Brande's Dictionary of Science contains information on all the subjects named.

M.R.C.S.E. and L.A.C.—We shall be happy to publish an abstract of the communication forwarded to us, but must decline printing it *in extenso*.

A Student will find two Papers on the subject he notices in the last volume of this Journal.

Nemo, Croydon.—Ann Duff, accused of perjury in having sworn that Mr. Shorthouse was the father of her child, has been committed for trial. As we have before remarked, the evidence appears at present of so contradictory and complicated a character, that we shall forbear making any remarks upon the subject until the whole has been submitted to the consideration of a jury.

A Governor.—All subscribers of three guineas a year have votes at the Westminster Hospital elections.

L. R. C. P.—The drawings will be found in Carswell's Pathological Anatomy.

Henry S. Gaye, Esq., Taunton.—We shall be happy to receive any reports of interesting cases that may occur in the hospital. Owing to the crowded state of our columns, however, we shall feel obliged by their being made as short as possible.

A Country Practitioner.—Arrangements have been made for the completion of the "Elements of Materia Medica," left unfinished by the late Dr. Pereira.

Mr. Wiglesworth's note is characterised by good sense and kind feeling.

H. C.—No.

G. G.—The most complete work on deafness, is that by Dr. Kramer, of Berlin, of which there is a translation by Dr. Risdon Bennett. There is also a book by Mr. Yearsley, entitled "Deafness Practically Illustrated," which contains an account of the mode of applying cotton wool to the membrana tympani.

Mr. J. R. Martin will see that we have noticed the subject to which he has kindly drawn our attention.

Medical Benevolent Fund.—The crowded state of our columns obliges us to omit the names of the new subscribers to this admirable charity. Again, if we published them in this case, we could hardly decline doing the same for other charitable institutions.

COMMUNICATIONS have been received from—

W. F. Barlow, Esq., Westminster Hospital; F.R.C.S. (by exam.); Dr. Inman, Liverpool; J. Toyndee, Esq.; Suum Cuique; B. Welton, Esq., Bridewell Hospital; Thomas Wiglesworth, Esq., Coleford; Henry S. Gaye, Esq., the Hospital, Taunton; Thomas Stokes, Esq., Nailsworth; W. K. Parker, Esq., Pimlico; Harvey Ludlow, Esq., Paternoster-row; A Student and Subscriber; H. Cribb, Esq., Bishop's Stortford; George John Gunthorpe, Esq., Kilsby, near Rugby; — Fletcher, Esq., Surgeon to the Manchester Union Fever Ward; John D. Cleaton, Esq., County Asylum, Lancashire; J. M. Churchill, Esq., Colchester; Robert Bowman, Esq., Paris.

ORIGINAL LECTURES.

LECTURES
ON THE ACUTE SPECIFIC DISEASES.
BEING THE GULSTONIAN LECTURES.

DELIVERED AT

The Royal College of Physicians.

By WILLIAM JENNER, M.D. Lond., F.R.C.P.
Professor of Pathological Anatomy, University College; Physician to the Hospital for Sick Children, etc.

Lecture I.

[Continued from page 236.]

The same affinity, and yet want of identity, is observed in regard of the local affections.

In six of the seven,—viz., small-pox, measles, erysipelas, scarlet fever, typhoid fever, and typhus fever,—the skin is the seat of disseminated vascular engorgement. In reference to relapsing fever, some difference of opinion on this point exists. Cases of relapsing fever, as of other diseases, rarely come under observation till after the period at which the German observers of this disease state the rash they saw in it had disappeared.

In a large proportion of the cases of relapsing fever I have seen, there have been minute hæmorrhagic points, *i. e.*, petechial spots, scattered over the surface; but whether these were the result of disease, or of the bites of insects, I am unable to determine. The patients that fell under my observation were of the very lowest class; but a similar state of skin was observed in Edinburgh, and, in a few of the cases I have recorded, there were on the skin purple spots so large as to preclude the idea of their having had an external origin.

But, although all these diseases—at least save one—agree in having an eruption on the skin, the nature of the eruption varies in each. In small-pox, it is a specific suppurative inflammation; in scarlet fever, it is diffused vascular engorgement, commencing in the most minute points; in measles, it is also vascular engorgement, but commencing in spots of some size; in typhus fever, there is a similar distension of the capillaries of the skin at detached spots at the outset, but terminating, before the conclusion of the disease, in a large proportion of cases, in rupture of one or more minute vessels in each spot. In typhoid fever, the eruption is due apparently to an increased flow of blood only to detached points; and rupture of the vessels at those points never occurs. The spots I have seen in relapsing fever have been evidently caused by cuticular hæmorrhage. In erysipelas, the skin affection appears to be inflammatory in nature, and it is accompanied by one of the effects of inflammation, viz., effusion of serosity.

Peculiarities in Respect of the Parts of the Skin Affected.—The eruption in each of these diseases appears first on particular parts of the body, or limits itself throughout to particular parts. In small-pox and measles the eruption shows itself first on the chin, nose, or forehead, and thence invades the whole face. In small-pox the skin of the wrists next suffers, while in measles the rash gradually passes from the face to the neck, thence to the trunk, and subsequently to the extremities. In scarlet fever the eruption breaks out first on the root of the neck, upper part of the chest, loins, and outer aspect of the arms. In typhus fever, the back of the hands are the seat of the earliest spots; subsequently, the trunk and extremities; and it appears on these parts almost simultaneously. In typhoid fever, spots scarcely ever appear on the face, and rarely on the extremities. They are, perhaps, more numerous on the posterior surface of the trunk, but their characteristic appearance is best seen on the anterior.

In erysipelas, the inflammation commences about the centre of the face—*e. g.*, over the lower part of the nasal bones—the point of the nose, or the centre of the upper lip, or a little to one side of these parts.

As to the Period after the Outset of the Disease at which the Skin Affection appears, its Course, and Duration.—In relapsing fever, if there be a specific skin affection, it appears on the first day of illness; the rashes of scarlet fever and of erysipelas show themselves on the second; that of small-pox on the third; of measles on the fourth; of typhus fever on the fifth; of typhoid fever on the eighth. While in relapsing fever the duration of the rash is less than twenty-four hours in measles, three or four days; in scarlet fever, six or seven days; in erysipelas, seven or eght days; in small-pox, ten or twelve days; in typhus fever, ten or twelve days; and, in typhoid fever, twelve to twenty days.

In their course, these skin affections present certain peculiarities. Thus, in scarlet fever, measles, and small-pox the eruption disappears first from the parts first affected; so that in scarlet fever, for example, the legs are brilliant scarlet, when the face and trunk have resumed their normal tint.

The eruption seated on the back of hands in typhus fever often disappears in twenty-four hours, while that which studs the remainder of the surface continues of one uniform shade over the whole extent, to the last. In erysipelas, the inflammation of the skin spreads from one spot gradually in all directions, ceasing to extend only with the cessation of the disease. Typhoid fever offers this peculiarity, that successive crops of spots follow each other at short intervals, the fresh spots being intermingled irregularly with the old, and the spots which appeared first never continuing till the close of the affection.

The scarlet tint of the rash in scarlet fever; its dusky red hue in erysipelas; its lake-like shade in measles; its mulberry aspect in typhus fever, and the rose colour of the spots in typhoid fever; the broad patches of eruption in scarlet fever and erysipelas; the circular, irregularly distributed spots in typhoid fever; the crescentic arrangement of the spots in measles and small-pox, and their orderless coalescence in typhus fever; the limited extent of the eruption in erysipelas and typhoid fever, contrasted with its wide diffusion in the other disease—these are characteristics of form, colour, and extent which need only, from our familiarity with them, to be mentioned.

In regard, then, to the skin affection in the diseases under consideration, we observe in each certain peculiarities in respect of nature, situation, date of appearance, colour, form, extent, and duration. With reference to the internal disseminated affections, the mucous membranes suffer the most markedly in scarlet fever, typhoid fever, erysipelas, and small-pox. In measles, however, it is the conjunctival, nasal, buccal, and bronchial; in scarlet fever and erysipelas, the faucial; in small-pox, the nasal, buccal, laryngeal, and tracheal; and in typhoid fever, the bronchial and intestinal. Again, the nature of the affection of the mucous membranes varies in each; in measles, it is active congestion, with abundant secretion from the membrane; in erysipelas, inflammation of a peculiar type, with dryness of the surface of membrane, and serous effusion beneath it; while in small-pox, the tendency is to suppuration; and in scarlet fever and typhoid fevers, to ulceration. In typhus fever, the mucous membranes suffer congestion only in common with other structures, if seated in depending parts of the body. Disseminated inflammations of the serous membranes are remarkably common in typhoid and scarlet fevers; comparatively rare in measles and typhus fever. Enlargement of the spleen is common in and to all; while in typhoid and scarlet fevers and erysipelas it is, especially, that the lymphatic glands suffer.

The *duration* of all these acute specific diseases is limited neither lasts longer than a month, and many have completed their course long before that time. Neither one continues more than a given number of days.

As to the mode in which this is determined, from the sudden commencement and abrupt termination of relapsing fever, and the fact that it is usually uncomplicated, there is no difficulty in fixing its duration.

The data for determining the duration of all the other diseases of this class are derived, *first*, from a consideration of the time that elapses between the first symptom of illness and the disappearance of the eruption; and, 2ndly, from a consideration of the appearances found after death. The eruption is one of the specific effects of the action of the exciting cause, *i.e.*, of the poison, seed, or other principle of infection, or of the condition of blood directly produced by that exciting cause, (and its continuance is ordinarily equal in duration, after its first appearance, with that of the specific disease.) The length of the disease is then, at least, the period during which the specific eruption is present, plus the period occupied by the general symptoms anterior to the outbreak of the skin affection.

The second class of data for determining the duration is derived from the examination of the bodies of those who die of these diseases.

Thus, all of these acute specific diseases are general diseases, and all may prove fatal without any lesion of structure of sufficient moment to account for death being found. Death results, that is to say, in a certain number of cases of each of these diseases, from the direct action of the poison which induces them, *i. e.*, from the change directly induced in the blood by that poison, or from the changes directly induced on all the tissues and organs of the body by that poison, or by the blood altered by that poison. Now, it is evident that death from this, or these causes, can occur only during the period that the disease itself lasts; therefore, if there be a period in each of these affections, *after which*, if death occur, changes of structure of sufficient moment or extent to account for death are always found, then the specific disease must be held to continue at least up to that time, whatever be the duration of the eruption. Now, experience proves, that in several of these diseases there is such a time, and has shown, moreover, that it is never later in each of the diseases than the time when the eruption fades in typical cases. Thus, the eruption of scarlet fever has disappeared in typical cases, by the ninth or tenth day of disease. If death occur in scarlet fever before the latter date, then experience shows that in a certain proportion of cases, no appearances are found of sufficient importance to account for death; while, if death occur after that date, then death may invariably be explained by the lesions discovered. If, in typhus fever, death ensue within twenty-one days after the first symptoms of illness, then may no deviation from healthy structure, such as experience proves to be capable of producing death, be discovered; while, after twenty-one days, extensive alterations of structure are constantly found.

If a case of typhoid fever prove fatal before the twenty-eighth day of disease, then may slight ulceration of the mucous membrane covering Peyer's patches, some enlargement of the mesenteric glands and spleen, be the only aberrations from the normal condition exposed by the most careful examination of the body; while, after the thirtieth day of disease, aberrations from healthy structure of the gravest character may always be demonstrated after death.

On the table are parts of the small intestines from two females, who died respectively on the fifth and fourteenth day of typhoid fever. In neither preparation is the intestinal disease very grave in character, yet scarcely any other change of structure was detected. For the one preparation I am indebted to my friend Dr. Sankey, and for the other to my friend and colleague Dr. Parkes.

It is, then, by a consideration of the period that elapses between the outset of the disease, when the invasion has been sudden, and the cessation of the eruption; and the period after the first symptoms, when also the invasion has been sudden, at which, if death occur, no lesions of structure to account for death are to be found, that we determine the duration of the acute specific diseases.

By the aid of the latter of these two points, it is, especially, that we are enabled to separate the duration of the illness from the duration of the specific disease. Practically, in regard of some of these diseases, this separation is generally, because readily, effected; the duration of the specific disease being determined by the duration of the symptoms of invasion, and of the eruption, the physician seeks for the complication by which the symptoms of illness are kept up. No one would say scarlet fever had lasted for seven weeks, because a person suffering from that affection had pleurisy established in its course, which pleurisy, passing into a chronic state, ran a course of six weeks. If such a case proved fatal, it would be at once admitted that the patient had died of a disease which had commenced during the progress of the scarlet fever, and continued after the latter had ceased. The same admission would be equally correct, even though the disease of which the patient died was one of those which, in a mild or severe form, invariably accompanies scarlet fever, *e. g.*, the throat affection; thus, in a case I saw lately, sloughing and ulceration of the fauces—established by the action of the specific disease—continued to progress after the latter had itself ceased, and ultimately caused the patient's death two or three weeks after the scarlet fever had terminated. I say, in regard of scarlatina and some other of these diseases, this separation of the duration of the specific disease from the duration of the illness is made, and consequently the former can have assigned to it as definite a duration in complicated as in uncomplicated cases,—in those unattended by an eruption as in those attended by an eruption. But in regard of typhus and typhoid fevers, the line in question has not been drawn, and we find, consequently, the duration of the latter said to be sometimes as much as sixty days, and that when no relapse has occurred. This confounding the duration of the illness with the length of the specific disease is an error into which I think some of the most able writers on these diseases have fallen. In typhoid fever, as in scarlet fever, there are two classes of lesions of structure discovered after death—1st, those which are invariably present; and, 2ndly, those which are more or less frequently the result of the disease. An instance of the former is ulceration of Peyer's patches; of the latter, pleurisy and pneumonia. Now, having been established in the course of the specific disease, either one of these may continue to progress after that has terminated, and all the general effects of ulceration of the small intestines, or of thoracic inflammation, be the result. The pulse may continue frequent, the skin hot, and the patient be delirious, and yet the fever may have ceased, the specific disease have terminated.

Determined by the data to which I have referred, each of the acute specific diseases has a definite duration, *i. e.*, with regard to each there is date capable of being fixed absolutely, by which time the patient either dies, or, so far as concerns the specific disease, recovers.

The duration is different for each species; thus, for measles it is 7 or 8 days; for scarlet fever, 8 or 9 days; for erysipelas, about 14 days; for small-pox the same, supposing in all four the eruption to have made its appearance on the typical day; while, without regard to the date of the appearance of the eruption, it is in typhus fever 21 days, and in typhoid fever 30 days.

If, therefore, health be not restored soon after these dates, we may be certain that some other than the primary affection is the cause of the continuance of the symptoms. And, again, if for either of these diseases a specific exist, or a special treatment be proper, it is manifest that that specific or that treatment can be expected to exert a favourable influence only during so many days from the outset of the first symptoms as the specific disease has been proved to exist.

The conclusion as to the duration of typhoid fever at which I arrived from a consideration of the points just referred to, has recently been fully confirmed by a consideration of a different class of facts.

Dr. Zimmerman lately published two papers in the *Deutsche Klinik*,(a) on typhoid fever. He determined the duration of the disease thus: He noted the temperature of the patient daily, and found that the thermometer indicated that the fever ceased some time between the 21st and 28th days; that is to say, then, for the first time after the commencement of the illness, the thermometer being introduced into the mouth, the mercury stood at the point at which it stands when placed in the mouth of a healthy person. Up to the same date of the disease, the patient was proved by the balance to lose weight daily, while from that date he was proved to gain weight rapidly: thus, a patient who weighed before his illness 170 lb., on the 22nd day of disease weighed only 119 lb., and on the 26th day only 117 lb. On the 30th day he was found to have gained 3 lb., *i. e.*, he weighed 120 lb., and on the 39th day his weight was 124 lb.; no alteration in his diet of sufficient consequence to account for the increase having been made.

The last point common to all these diseases is, that they have a *specific cause*. But although all are capable of reproducing themselves, there is not one which does not sometimes arise under circumstances in which it is impossible to trace the existence of any source of contagion,—that is to say, there is not one which does not sometimes appear to arise spontaneously. But the frequency with which this happens differs considerably. It rarely happens that cases of small-pox, the disease not being epidemic, are unable to be traced to their origin. The inability to refer the disease to contagion is more common in respect of cases of scarlet fever, measles, and typhus fever, while the contagious nature, even of erysipelas and of typhoid fever, has been called in question. Nay, it was long held that typhoid fever differed from typhus fever for this reason among others, that while the latter was contagious the former possessed no power of reproducing itself. The memoir of M. Piedvache, "Recherches sur la Contagion de la Fièvre Typhoide, et principalement sur les Circonstances dans lesquelles elle a lieu, par Joseph Piedvache, Paris, 1850," has for ever laid this doubt. That observer has shown, that if the conditions of develop-

(a) November, 1852.

ment be given, typhoid fever has the power of reproducing itself, and has adduced several instances in which persons in attendance on cases of typhoid fever not only contracted the same disease, but, having been removed while ill to houses situated miles distant from the primary case, and where no fever existed, communicated the disease to their relatives and friends. As a rule, those only had the disease who, in imperfectly ventilated rooms, were in close and continued communication with the sick man.

But let the cases of that disease collected together be numerous, and the attendant fully exposed to the effluvia, and it will spread among them in the best ventilated places as freely as typhus fever. For example, the number of nurses who suffered from typhoid fever during the time I visited the London Fever Hospital was as great as the number of those who had typhus fever, while, during the same time, one of the medical attendants had typhus fever, and just before one had died of typhoid fever.

It would appear that the seeds of these specific diseases differ from each other, like the seeds of plants, not only in requiring more or less different conditions for their development, but also in the facility with which their germinating powers are destroyed.

I cannot call to mind a single instance of a case of small-pox being received into the wards of a general hospital without the disease spreading to one or more of those in relation or proximity to it; while I can remember only two instances of the extension of typhoid fever when cases of that disease were scattered through the wards of a *general* hospital; and in these cases it was the friends of the patient —the mother, in one instance, who had watched by her son night and day—who suffered.

The following facts, given by Dr. Flint, of Buffalo, are of interest, as bearing on this point and some others connected with the means of the propagation of the contagious diseases. At North Boston, Erie county, United States, in 1843, resided nine families. Taking a tavern for the centre, seven of the nine lived within an area 100 rods in diameter.

All the inhabitants, with the exception of the members of one family, were in the habit of frequenting the tavern. A feud existed between the master of that one and the tavern-keeper. A man labouring under typhoid fever (a disease previously unknown in North Boston) took up his residence at the tavern, September 21, and died October 29th.

Between October 19th and December 7th, twenty-eight persons in this little community had typhoid fever. Three families only escaped the disease, viz., the two residing the farthest from the tavern, and that of the man who had a quarrel with the tavern-keeper, and who, consequently, never visited at his house. Now, a fact of interest in this case is, that all the families in which the disease appeared drew their supply of water from the well of the tavern, while two out of the three that escaped had their water from other sources.

The man at feud with the tavern-keeper was accused of having poisoned the well of the tavern. He resided nearer than any of the others to the tavern. None who visited the village simply for the purpose of rendering assistance to the inhabitants contracted the disease.

In concluding this review of the typical causes of the acute specific diseases, I would observe, that, as the pathological tendency

of small-pox	is to produce	inflammation and suppuration;
of measles	,,	active congestion;
of scarlet fever	,,	inflammation and ulceration;
of typhoid fever	,,	inflammation and ulceration;
of typhus fever	,,	congestion and extravasation of blood;
of erysipelas	,,	inflammation and effusion of serosity;

it is probable that the pathological affinity of typhoid fever (a) is with scarlet fever rather than with typhus fever or relapsing fever; and that the pathological affinity of typhus fever is with measles rather than with typhoid fever or relapsing fever; while the symptomatological affinity of relapsing fever is with the class of diseases in which intermittent fever ranks, rather than with typhus fever or typhoid fever, although etiologically its place is among the acute specific diseases.

In my next lecture, I propose to consider the essential and determining causes of the deviations from their types of particular cases of the acute specific diseases; and to give a brief sketch of some of the varieties thus produced.

(a) I have been repeatedly asked, Why give names so nearly alike to things so distinct as typhoid and typhus fevers? The former name, moreover, it has been said, is very inappropriate.

Two circumstances have prevented me from proposing another name for typhoid fever; 1st., the fact of the disease having been described by that name in the classical works of Louis, Chomel, Jackson, Bartlett, and others; and, 2ndly, my inability to find a name for it so appropriate as to justify the attempt to displace the old one.

Dr. Babington proposed to me the name "febris tympanica," Dr. Hare that of "sepomia," to express the disease in question. Nervous fever was the old English name.

Many of the German and some English writers have adopted the term "typhus abdominalis;" to this term I object strongly, because, especially, it involves a theory concerning the nature of the disease maintained by no sound authority.

CLINICAL LECTURE

ON

BURNS AND CICATRICES,

AND ON

THE OPERATION FOR CRURAL HERNIA.

DELIVERED AT

King's College Hospital.

BY WILLIAM FERGUSSON, ESQ., F.R.S.

Professor of Surgery in King's College, London, and Surgeon to King's College Hospital, etc.

GENTLEMEN,—Among other cases which have been under our notice, several instances of severe injury from burns have been brought into the hospital during the last few months, and I think that it will be well to call your attention to them in the present lecture. You must all be aware that in this class of injury the amount of surgery which is required differs very much, for, in some instances, very little skill is called for on the part of the practitioner, especially if the case be attended to at an early period, while in others he has to call in the resources of his art in a much more energetic manner. In the slighter cases of burn there is not any danger to life, nor, if common care be taken, is any deformity likely to result; but when they are more extensive there is great fear of the patient dying speedily from the shock of the injury,—a thing of by no means unusual occurrence. In severe cases, where patients have died speedily from a burn, the result of accidental combustion, and when no one has been witness of the accident, it has been supposed that spontaneous combustion of the body had taken place, for you are aware it is a popular belief that a spontaneous burning of the human body may be produced from too much spirit drinking, and many cases have been adduced which seem to prove that this was possible; but there is reason to believe, from accurate scientific data, that all these cases have been instances where the body has been burned by ignition from without. Some of them have, however, been very interesting, and sometimes a great question as arisen as to what has been the cause of the combustion. I refer to this point, merely to keep it in your minds, and for the purpose of expressing my own opinion about this so-called spontaneous combustion.

The cases most frequently coming under our notice are those where the body can be recognised; but every now and then it happens that the injury is sufficiently severe to destroy those features by which identity may be depended upon, and some curious questions of this kind have occurred. Some time ago a large fire took place in London; two females were burned,—one of them was a lady of consequence, the other was a maid-servant. Both bodies were discovered, but so mutilated, that it was impossible to find out which was which; however, an ingenious mode of finding this out was hit upon by a professional man. It was known that the lady had been the mother of several children, and an examination of the internal organs being made, the discovery was found out as to the proper identity of the individual bodies.

When death does not ensue immediately upon a severe burn, it frequently happens that the patient lingers for several days, and then becomes worn out, as was noticed in the case of a woman named Mary Kennedy, aged 33. She came into the hospital at the end of December, and remained in the house thirteen days before she died. She had been extensively burned about the body, and, as you may remember, was in a very precarious condition, being extremely depressed. Stimulants were administered to her in

large quantities, but she gradually got lower, and latterly sank very rapidly, having had some symptoms of ulceration of the duodenum, which, you are aware, sometimes occurs after severe burns: I see, by looking at the report of the case, that my dresser, Mr. Drew, has expressed in writing a somewhat decided opinion, that such was the fact. Here, however, we did not have the opportunity of examining as to the accuracy of this opinion after death. It is very possible that ulceration of the gut had taken place; but the extreme depression under which she laboured during this time was sufficient to carry the patient off. And this leads me to remark, that the great point in the general treatment of patients who have been severely burned is to keep up the powers of life, which become remarkably reduced by such an injury. This is chiefly observed—if the patient recovers from the immediate shock—during the time that the sloughs which are formed afterwards are separating, and it is then that there is great fear of the patient sinking; therefore, large amounts of stimulants and of nutrient fluids should be allowed. The life of the patient mainly depends upon the vigilance with which the surgeon looks after him at this critical juncture.

When the danger to life has passed by, and the granulating and healing powers take place, there is a vast deal of attention required upon the part of the surgeon, and much patience too, for, as you must be well aware, the sores left after burns take a long time in healing up. Why this should be so, it is not easy to explain; perhaps it may be, that only the outer surface of the skin is destroyed, and that, in consequence of there being a layer beneath, little contraction of the granulations takes place. Whatever the explanation may be, it is a fact, that these sores sometimes keep open for months and years.

During the time that this slow healing process is going on contraction of the tissues takes place, and ultimately considerable deformity is produced, unless the greatest care is taken to prevent its occurrence. Very many of these severe burns happen in the persons of young children, and these deformities, from cicatrization of the parts, become much more marked in them, because, whilst contraction is going on, the patients are growing, and the disfigurement and displacement of parts become much more marked. This is especially observable, too, when the attendants have not employed great care in so keeping the part that it may be prevented, for although, by the utmost caution and attention, deformity cannot be prevented in some severe cases, yet in many it can, and, indeed, there has of late been a beautiful illustration of what care may do in obviating this disfigurement in the person of a child who was under the care of my colleague, Mr. Partridge. This patient was burned most severely about the arms and fingers, just the parts where deformity might be expected; but so much attention was paid to the case, and the parts were so carefully dressed, that no deformity resulted. Having had opportunities of seeing this patient, you know how severe the injuries were, and you now see what can be effected by care; for I have not the least doubt that, had this child been neglected, great disfigurement would have resulted.

Unfortunately, however, either from the want of care on the part of the surgeon, or much more frequently from negligence on the side of the patients themselves, or their parents, such deformity occurs in numerous cases as not only to disfigure the body very much, but to prevent the individual from attending to ordinary occupations for procuring a livelihood, and these are the instances in which the practical surgeon is more particularly interested. In the majority of such cases the deformity is either seen as a drawing down of the chin and mouth to the neck, contraction of the forearm upon the arm, or of union between separate fingers, and during the last few months we have had several examples of these various deformities. Three of these were instances where the front of the neck had been burned, and the chin was drawn down towards the sternum. Two of the patients were maid-servants, and, in consequence of the sad deformity, were totally unable to secure suitable engagements to gain their livelihood. In both of these instances I performed an operation, and, by little devices, of cutting the cicatrices in various directions, the most capital results were ultimately produced. You may remember that in one of these cases, where there was a firm contraction on each side of the neck, there was a large hole or depression betwixt the two cicatrices, into which I could put the top of my thumb. The skin here was perfectly healthy and very loose, and, by availing myself of this, the neck has stretched to the extent of full one inch and a half.

In this instance, however, I did not only divide the cicatrices, but I had a collar contrived for the patient, which was worn for some time, and, by proper adjustment and application, great extension of the contracted parts was produced. At the time this patient was being treated, there was a boy in the house with the same deformity; the collar was put on him, too, and great benefit resulted. After the operation has been performed, the stretching process should be used, and should be slowly kept up for a length of time, otherwise matters will get as bad as before operation. It is very important for you to bear this in mind.

Just at present we have in the hospital the case of a young man who had been frightfully burned about the face and neck; and the most awful disfigurement that could be conceived ensued. My old pupil Mr. Beavan, sent this patient up to me from Wales, for the purpose of ascertaining if I could do any good. At first I was fearful that it would be useless to attempt anything; however, by making some divisions of the cicatrices, I have succeeded in extending the neck. There is also a case in the female ward just at present, where, in consequence of a burn and its after cicatrisation, the contraction is so great that the lower lip has become turned quite inside out. I intend to try and remedy this deformity to some extent.

However, it is my duty to tell you, that, if operations are to be done for the remedying of deformities in this situation, the very greatest ingenuity and care are required to produce a successful result; and I have brought this subject before you more particularly for the purpose of impressing this upon you. There are some surgeons who think that such operations are not likely to be attended with benefit; but you have seen for yourselves that great relief may be given by them; but, at the same time, you have seen that an immense amount of care and attention is requisite for any success to follow. I may truly tell you, that there are not any cases in surgery which require so much; and if you do not possess either the time or the patience to give a great share of attention to the after-treatment of these cases, it will be useless for you to attempt any operation in the hope of meeting with success, and you will not reflect any credit upon surgery.

Before leaving this subject, I will just refer to a case of the same nature, but occurring in a different locality, where I performed an operation for the relief of a deformity of the kind now alluded to, as the results were perhaps the most satisfactory you have seen here. It was that of a little boy, who had been burnt on the forearm and wrist. As cicatrisation took place, the thumb was drawn upwards and backwards to such an extent, that it looked as though it were dislocated, and great disfigurement ensued. The cicatrix over the radial side of the forearm was very long and tough. I divided this through all its extent, took away some portion of it, and thoroughly relaxed the parts. The thumb was brought down near to its natural position, and by great care afterwards the deformity has been quite removed.

A patient is now in the house, upon whom I operated a few days ago for strangulated femoral hernia, and although I have brought this subject before you on former occasions, I think it right to draw your attention to the case, as it presents some features of interest.

The following are the particulars in the book: "Elizabeth Matthews, aged 40, married, admitted five p.m. on Sunday, February 5th, with a strangulated femoral hernia. Stated that she had been ruptured for three years, and that for the first six months she occasionally wore a truss; since that period, however, she had used no support, always being able to return the intestine. On last Friday week she found herself unable to return it as usual, and came to the hospital, when the house-surgeon, Mr. Lawson, succeeded in returning the rupture: a bandage was applied, and she was advised to wear a truss. She continued wearing the bandage until the day when the hernia came down, after she had removed it, and she could not reduce it as usual. She came to the hospital at once, when Mr. Lawson placed her in a hot bath, and attempted to return the rupture. At half-past nine Mr. Fergusson was sent for. He saw her, and immediately determined to operate. She was placed under chloroform. Gay's operation was performed, and the intestine was

readily reduced. Since the operation the patient has gone on most favourably. The bowels were opened on the fourth day, and she is rapidly recovering."

The reason why I draw your attention again to the subject of hernia is, that this case is now under your observation; and it always appears to me to be well to make clinical observations on those cases which are lying in the wards at the time. Any practical remarks which I may make are thus more likely to be impressed upon your minds; and I always endeavour to avoid dwelling upon cases you have never seen.

Although so much has been done in reference to the subject of hernia, it would be unwise to fancy that everything is known about it; for notwithstanding that great talent and intellect have been devoted to this matter, and that all its principal features have been carefully studied, some additional accidental knowledge may every now and then be acquired, and considerable improvement may be made in certain points of practice;—indeed, cases of hernia present such variable features, that something may be learned from each one we see.

In the instance above related, there are features of interest. You have seen that the patient was, as most persons are, very negligent of her condition, and went about without wearing a truss; and that, some days prior to the operation, the hernia came down and was reduced. The patient was cautioned to wear a truss, and had a bandage applied. When she took this off, however, the rupture still came down, and neither she nor Mr. Lawson could return it as before. This circumstance shows how necessary it is for patients who have once suffered from strangulated hernia to be very cautious, and not neglect wearing a truss, for changes are produced in the aperture, or in the contents of the sac, which may prevent a hernia which was once easily reducible from being again returned.

After Mr. Lawson had tried the usual methods employed in such cases, he sent for me; and directly I felt the hernia, and found it would not go back, I determined to operate without further delay. This is a feature which I wish particularly to impress upon your minds, namely, the great importance of operating early. It is the custom of most surgeons to teach this doctrine; but I fear that it is not so much practised as it is talked about. I must acknowledge myself guilty of having delayed in cases beyond a proper period of time, and have had to regret it much; but, on the whole, with regard to my own practice, I seldom fail now to attend to this general rule, which is of such vast importance. It is true that there is an objection to perform an operation until other measures have been tried; and cases have been recorded where patients have recovered after an operation for hernia has been delayed until days or even weeks after the symptoms have first set in; but these cases must be looked upon as exceptions to the general rule. It has often been remarked, that operations for hernia have been more successful in private than in hospital practice; and there is no doubt that it is true. In the latter case, protracted attempts have generally been made to reduce the hernia, and great mischief is done. In this instance, however, this was not the case; the operation was performed as early as possible after the symptoms had set in, and to this, in a great measure, must we attribute the success which has ensued. Moreover, the mode of operation here was very simple; it is that which the dresser has very appropriately termed Gay's operation, to which I have before called your special attention, and which you have now seen me practise many times. I consider it a most striking improvement in the operation for hernia, giving it a character little less formidable and difficult than the taxis; and, of late years, I have done hardly any other operation but this. There can be no doubt that a cutting operation is required every now and then in instances of strangulated hernia, notwithstanding that certain enthusiasts of very limited experience—men who, perhaps, have only seen fifteen or twenty cases of the disease in their lives—have tried to prove that it is hardly ever necessary; and, when it is required, it is best and safest to practise the operation in the simplest way possible, such as may be nearest to the taxis. This was the feature in the proceeding devised by Petit, consisting in returning the hernia without opening the sac. Mr. Gay, however, has made the process even still more simple, for he hardly meddles with the body of the tumour at all, and divides but little of the skin. In modern surgery, it is a remarkable feature that we divide tissues extensively without wounding the skin more than by a simple puncture. You may recollect seeing me divide subcutaneously the whole of the deltoid muscle, in a remarkable case of luxation of the head of the humerus, although I only made the smallest possible opening in the skin.

This principle is, to a certain extent, carried out in this method of operating for strangulated hernia, for only a very short cut is made through the superficial tissues, and the knife is readily inserted through this opening and carried to Gimbernat's ligament, which generally constitutes the stricture. Of course the operation will not suffice in every case, for every now and then it will be necessary to open the sac, in order to look at its contents, when there is reason to believe that the intestine is in a condition not fit to be returned. In cases, however, where the patient is seen early after the strangulation, it may not be necessary to open the sac, for the more simple the proceeding the better it is, and I have now alluded to this case particularly to point out to you again the superiority of Mr. Gay's mode of operating.

HISTOLOGICAL ANATOMY
AND
MICROSCOPICAL MANIPULATION.

By Dr. BOON HAYES,
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PART SECOND.

THE PHYSIOLOGICAL DEMONSTRATION OF THE TISSUES.

Lecture IV.

Summary.—1. The Position of the Cellular Theory in Physiological and Pathological Science—2. What is a Cell?—3. Description of a Type Cell—4. The Cellular Theory according to Schleiden and Schwann, and its Simplest View—5. The Office of Cells—6. Cellular Changes and Tissue Formation—7. Nuclei—8. Nucleoli—9. Blastema—10. Demonstration of Various Cells—11. Milk: the Apparatus, etc., required for the Demonstration—12. How to Manage the Microscope—13. The Re-agents—14. The Specimen—15. The Manipulation—16. The Demonstration of Milk—17. Of Colostrum—18. Characters of Colostral Milk.

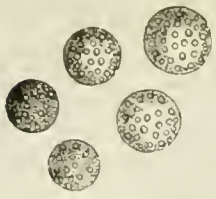
THE CELLULAR THEORY.

1. The position of the cellular theory, in physiologica and pathological science, is similar to the position of the atomic theory in chemical science. It explains many of the phenomena observable in animal and vegetable structures, and forms a groundwork upon which we may build logical hypotheses, in accounting for tissue formation generally. The theory is briefly this,—that "tissues originate from cells." It is inessential to our present purpose to inquire into the origin and history of this theory; I shall content myself with stating, therefore, that it is founded upon the close, consecutive, and almost innumerable observations of facts; confirmed by many microscopists, from various structures, at different times; that, although it does not fully account for *all* the appearances in *all* tissues, it has, perhaps, no facts positively against it; and this deficiency is to be traced to the *incompleteness* of our observations, arising from various causes, rather than to well ascertained phenomena which are contradictory to the theory.

In the whole of vegetable tissue development, perhaps no other agency is employed; and in the simpler animal tissues, the cell is doubtless their sole originator; but in the higher forms of animal structures, fibre and membrane appear without any connexion with cell transformation, as if directly produced from blastema (4), and hence the theory of Schwann would seem not to be universally applicable, though, doubtless, in the origin of the animal producing these fibres and membranes, the cell alone was the motive and transforming power.

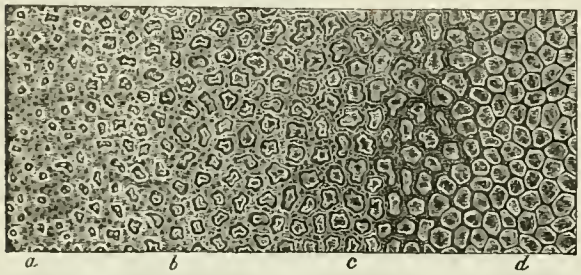
2. What is a CELL? A simple vesicle or closed sac, microscopically minute, the wall of which is made up of

homogeneous membrane, and the contents of which, at some period, at all events, are liquid, semi-liquid, or solid, or all these in succession. In its simplest form it possesses an individual, isolated existence,—living, growing, propagating, decaying, and dying, while its posterity of cells similarly live, grow, propagate, decay, and die. Its highest development is attained in its individual history; and such a simple cell differs in no way from its earliest progenitor, as far as we are aware, or any reasoning from analogy would lead us to suppose.



Simple isolated cells, containing reproductive molecules.

There are similar cells, *not* isolated, which grow, in connexion with others, by a process of coalescence, having, as it were, no really independent existence; they are, therefore, called, in contradistinction to the isolated cells, "*compound.*" These form, by certain changes about to be referred to, the majority of organic tissues, animal and vegetable.



Portion of shell membrane, showing the origin of cells in the midst of horny intercellular substance. *a*—nuclei; *b*—incipient cells; *c*—the same, further advanced, but separated by intercellular substance; *d*—the cells become polygonal by mutual pressure.

3. While there is a strong analogy, nay, sometimes even impossibility of distinction between one cell, viewed isolatedly, and another; all and each have individual properties, which, if not immediately recognised, may be developed by the action of certain re-agents; and a *microscopic analysis* consists in applying such re-agents with a view to ascertaining these qualities.

In addition to the description already given of a cell in its simplest form (2), a *type* cell may be said to have in its interior certain granular matter, perhaps amorphous, and one or more organised bodies called *nuclei*, (a) having in their interior *lesser* nuclei, and hence called *nucleoli*. Thus, there are, as it were, two generations *in* this one type cell,—the cell being the highest development of the nucleolus. A *quæstio sub judice*, even at present, is this, which of these three structures is progenitor of the others? or which was first created? or were they organised simultaneously? Without attempting to settle this point, which would add no more value to the cellular theory than a settlement of the ultimate *form* and *size* of atoms would add to the value of the atomic theory, I may remark, that the following appearances constantly present themselves:—A cell, having in its interior, and attached to some part of its wall, a nucleus; which nucleus, as both itself and the cell-wall develope, is seen to contain a nucleolus.

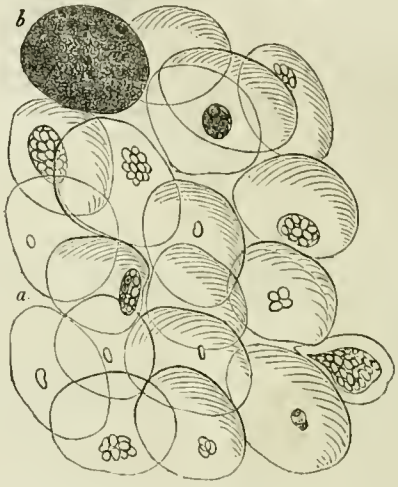
4. Now the view of Schleiden, who first pursued these inquiries among vegetable tissues, confirmed by the acquiescence of Schwann, from tracing this subject in animal tissues, is this: That the nucleolus first originates by some determinative vital force in *blastema* (b) (the pabulum of organic tissues,) that it attracts to itself other particles which, organizing, form the nucleus; that this, acting still upon the same blastema, produces a cell wall; and thus, the three generations of structures originate in due sequence, both of time and dependency.

5. The cellular theory being admitted as a whole; other views of the *order* of cell development have been suggested by different physiologists. These are all very interesting, and their study beats out new ideas and suggests varied experiments.

(a) *Nucleus*, a kernel (*nux*).

(b) βλαστάνω—I germinate.

The opinion of Hugo von Mohl differs from that of Schleiden in this particular, that cells, instead of increasing by development from a nucleus or nucleolus, according to Schleiden's view, contain within them a thin layer, called a "*primordial utricle*," which, by a series of constrictions, divides off the parent cell into so many smaller cavities or cells, which increase in size by an endosmotic action upon the pabulum of their support. As I have before hinted, this does not affect the *cellular theory*—that is, the origin of tissues from cells—but rather certain phenomena appearing in the history of individual cells. In short, it is more than probable, reasoning from the observations of different physiologists, that cells may originate in several distinct modes; at all events, that they may be endogenous, that is, growing within other cells; or exogenous, that is, growing from the surface or interstices of tissues generally—the former prevailing in vegetable, the latter in animal tissues.



Endogenous cell-growth in cells of a meliceritous tumour. *a*—cells presenting nuclei in various stages of development into a new brood; *b*—parent cells, completely filled with a new brood of young cells, which have originated from the granules of the nucleus.

The "*basement membrane*" of Bowman, or "*primary membrane*" of Goodsir, is the constant *intervening septum* between cells and the pabulum of their support. It will be referred to in the seventh and thirteenth lectures.

Confining our attention to animal tissues for a few moments, *this* seems certain, that CELLS, *however* they originate, are the *ever-acting media* of all the changes of animal tissues, whether of origin, growth, generation, or decay. *How* it is that bone cells should select the elements of bone; muscle, muscle; nerve, nerve; all and each from the *same* pabulum, are points which do not enter into our inquiry, and are, in all probability, *ultimate facts*. That they *are*, we know; *how* they are is beyond our reach. But not more so than the "*how*" of anything is beyond us.

I have given the *simplest* ideas of cell origin; there are numberless exceptions, theoretical, and apparently real, to this view; and those who are specially interested in the matter may consult with profit the best summary of all that is known and recognized as important upon this subject, viz., "Quain and Sharpey's Physiological Introduction," from page xxxvi. to page lxiv., inclusive, or the original memoir of Schleiden and Schwann, or "Mohl's Principles of the Anatomy and Physiology of the Vegetable Cell." Translated by Henfrey.

6. A cell may *remain* isolated, as a blood globule for instance, or it may contract adhesions to other cells. Absorption of the contiguous parietes may take place, and thus a continuous membrane of an extended nature may be formed. This membrane may ultimately *split*, in one or more parts, and fibres and fibrillæ may be produced; the cell-wall may thicken by growth and *secondary deposit*, or the contents of it may utterly change their nature. It is supposed by Henle and others, that membranes, fibrillæ, etc., may be produced *directly* from blastema (3) *without* the intervention of cells, and many observations, especially in pathological histology, would lead to the same conclusion, but

that we *do* see membranes and structures formed by cells is certain; we cannot say that we *see* structures formed without them, for our *not seeing* the cells is no *proof* that they have not been engaged in the process; and it might be justly objected in argument, that the cells (reasoning from analogy) *had been* so engaged, but that our observation had not *hit* upon the *punctum temporis* of their intervention in the process.

7. Nuclei are about the $\frac{1}{6000}$ of an inch in diameter, or they may be even as large as the $\frac{1}{4000}$ of an inch. Those of you who are not accustomed to estimate the value of fractions, will understand me better when I say, that if 6000 nuclei were placed in a straight line in absolute contact, they would measure one inch in length. (You will be able to refer to this illustration in appreciating these microscopic measurements, or when speaking of the size of microscopic objects, for the future.) Some suppose that the nucleus is itself vesicular, others homogeneous, others granular. These, however, are interesting, but unimportant inquiries. It seems pretty certain, that in the history of any one cell or set of cells, either blastema or a nucleolus and a nucleus are essential to its existence at *some* period, or that one of these *originating* tissues may become *vicarious* of the others both in origin and function.

8. Of the nucleolus little can at present be said, though its function and office have been assigned to it by theorists; that it exists is certain, (though this has been denied,) because Schleiden has succeeded in isolating it from its nucleus and cell.

9. Blastema, or cyto-blastema,(a) (5) is the pabulum of support for all tissues. Before the circulation is thoroughly set up in any animal, this is derived from some source deposited by the parent; but after it is established, this support is obtained from the liquor sanguinis, which "may be regarded as a generally diffused blastema, or at least as a general source whence the organisable material or blastema is derived."(b)

So much, then, for the cellular theory. I shall illustrate its consistency during the demonstration of the various tissues of the body, pointing out some of the apparent and real exceptions to its applications, as far as may be necessary.

10. You must now demonstrate various cells, isolated and compound, vegetable and animal, physiological and pathological. For this purpose provide yourself with some flour, a small piece of raw potato, and a small piece of semi-boiled potato, a green leaf, or a petal from a flower. These will do for vegetable tissue.(c) Blood, milk, fat, and epithelium will do for the illustration of physiological, isolated, and compound cells of animals, and pus for pathological cells. All these will be systematically demonstrated in the course, but I am using them now as illustrations of *cellular structure*. In placing specimens of these different tissues on the stage glass take only the smallest portion of the tissue; thus of the milk, blood, pus, take *drops* on the end of a *very thin* glass rod, or point of a silver probe; spread these out upon the glass, and cover them with an over glass before observing them. For epithelium scrape a portion of the tongue with a spatula, and place a drop of the fluid on the stage glass in a similar manner; these will show nuclei, necleoli, and granular matter. For fat take a small piece from the fat of an uncooked beefsteak, *rag it* or *tease* it out with a couple of needles. You should have a layer almost thin enough to read through; this will show compound cells. For a vegetable leaf take any piece of leaf and scrape off a portion of one of its surfaces, then look at it; its colouring matter is deposited in cells which are in contact. Potato scraped will show starch cells; flour, also, will show starch cells. Semi-boiled potato will show the cell wall ruptured from the swelling up of the fæcula within the membrane forming the wall. These instances will illustrate the constancy of cellular structure in organised bodies, and they may be multiplied *ad libitum*.

PRACTISE YOURSELF IN DRAWING ALL THESE DIFFERENT STRUCTURES BEFORE BEGINNING TO USE YOUR "HISTOLOGICAL BOOK."—51, First Part.

(a) κύτος—a cell.
(b) Quain and Sharpey's Introduction, p. xliii.
(c) Any similar part and structure will do; these and the other structures are mentioned for definiteness simply.

Let us now proceed to demonstrate

MILK AND COLOSTRUM.

11. What you require for this demonstration are, in the way *of apparatus*, half a dozen stage glasses, with over glasses; *of re-agents:* pure water, ether, weak acetic acid, and—if you examine adulterated common milk—tincture of iodine also; *of specimens:* some milk, not more than a few hours taken from the breast,—or, if looking at common milk, a portion, as ordinarily used in domestic purposes.

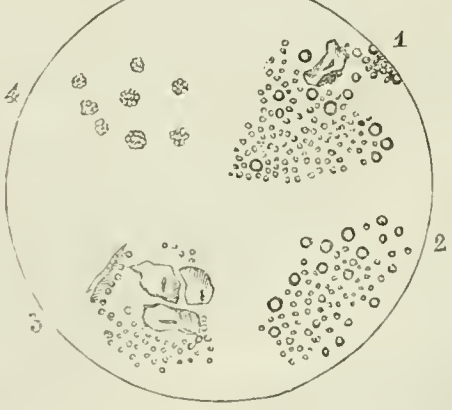
12. The MICROSCOPE, for the demonstration of milk, should be *planted* near a steady light, not very brilliant, on account of the translucency of the milk globules. If you use the oblique movement, place an over-glass upon the specimen—a very small quantity of which will suffice—lest, by evaporation or contact, the object-glass should be dimmed. With a magnifying power of from 250 diameters and upwards, you may examine milk very thoroughly.

13. The RE-AGENTS required for this analysis are, a little weak acetic acid and a little ether; the former to act upon the envelope of the milk globule; the latter to dissolve the oil which these envelopes contain; the acid should be of the strength of one drachm to four of *pure* water; the ether of the ordinary strength.

14. The SPECIMEN of milk requires very little preparation. One portion should be allowed to stand for several hours, until it has thrown up the *cream*, which should be examined. Another portion should be observed just as you get it, that is, without being allowed to stand. A third examination should be devoted to the milk after the cream has been poured off. You should also examine milk yielded with "*the draught*," as it is termed by nurses.

15. The MANIPULATION in the demonstration of milk is very simple. The smallest drop having been taken upon the end of a clean glass rod, should be placed upon the stage-glass. This should be covered by an over-glass. The focus having been adjusted, before applying any re-agent observe carefully the appearance of the specimen, and draw it in any one of your quadrants. (52, Part First.) Now wash the specimen from the glass, or employ another stage-glass for a new specimen examined under like conditions, and see whether or no this latter corresponds with the former.

If so, proceed to apply upon the end of a clean glass rod a drop or two of the weak acetic acid. This, in the case in hand, is best done by placing it near the edge of the over-glass *while* you are looking at the specimen. The globular shape soon begins to disappear, and irregular particles of oil form in various parts of the field by homogeneous attraction. These you should draw, not for the sake of any definiteness or uniformity they possess, but as a demonstration of the completeness of your analysis. Now, just in the same way in which you added the acid, add three or four drops of ether. This dissolves the oil completely; but you will most likely observe a few milk globules in the field; the ether will not act upon these, because the oil they contain is protected by an envelope which has not been destroyed by the acetic acid. If, however, you will press the over-glass upon these with your finger, covered by a silk handkerchief, you will rupture the envelope, and the oil is immediately dissolved.



1. Ordinary human milk.
2. The cream of the same, after standing four hours.
3. The milk proper, or milk after the cream was thrown up.
4. Colostrum globules.

16. Demonstration.—In looking at milk just as it is drawn from the human breast (1st quadrant) you observe a series of different sized translucent spheres, which we have already described as oil globules. Some are exceedingly minute, while others are ten or even twelve times their size. All, however, have the same characteristics, (they differ, I think, only in size, though Donne describes them as caseine globules,) namely, a bright pellucid centre, with a dark border. They roll equally across the field, and present no different aspect on different sides; *therefore*, they are spheres. Unacted upon by decomposition, re-agents, or pressure, even when in the closest contact they remain distinct; nay, more, when acted upon by *ether alone*, they still retain their form; but if pressure or violent agitation be employed, that form is instantly destroyed, and aggregation in irregular masses of oil takes place; *therefore*, milk globules *do* possess an envelope, and it is probable that that is composed of albumen.

In examining milk which has stood a few hours and thrown up the cream (second quadrant), you observe more of the larger globules in proportion to the amount examined. These, of course, you can more readily crush; and, in doing so, you imitate on a microscopic scale the process of churning, which is obviously to rupture the envelopes, and cause an aggregation of the oil, that is, the butter. A converse appearance is observed by looking at the milk proper (quadrant 3), namely, a smaller set of globules in proportion to the amount of fluid, with epithelium scales derived from the nipple and galactophorous ducts, with casts of these ducts occasionally.

Milk obtained during the rapid flow called "the draught," generally contains more epithelium scales and casts of galactophorous ducts, very frequently also blood globules, from slight rupture of some of the capillary vessels; and this is consistent with the perfect health both of mother and child, and is of most frequent occurrence in primiparæ.

It has been denied by some that milk globules have any real envelope, and further stated that it is oil in a series of globules, which preserve their rotundity in the fluid in which they are immersed, by their own homogeneous attraction; but the analysis just gone through seems to prove the existence of the envelope. In all probability they are, however, not organised cells, as blood or pus globules, for instance, but the result of a peculiar action of oil upon an albuminous solution. If oil, under the microscope, be placed in soluble albumen, or even a solution of gum arabic, you may observe it to become gradually encased in an envelope. This was first pointed out by Atcherson, but it cannot be supposed that this pellicle has the vital properties of a cell-wall.

Milk contains the three staminal principles of nourishment, —namely, the albuminous, the saccharine, and the oleaginous; and is thus adapted for the sole support of the infant during its early life.

17. If almost any specimen of milk, which has been secreted during the first nine or ten days after parturition, be examined as above described, it will be found to contain certain yellow granular bodies, termed "colostrum globules." These are figured in quadrant 4. They have been described as being like unripe mulberries. They are considerably larger than the largest milk globules, and the majority of them are more or less broken up. I have never found any in milk secreted after the thirty-second day; and, in fact, then their number is so considerably diminished, that you may have to examine many specimens before you obtain any colostrum.

18. It is well known, that colostral milk possesses highly purgative properties; and its ultimate cause is doubtless to purge the meconium from the bowels of the new-born infant. I have known it return after it had ceased for some time; but never, in my observations, unless the suckling mother menstruated regularly during the period of lactation, or had become pregnant while suckling. But I shall refer to this when speaking of the pathological relations of colostrum. If my present observation be borne out by further instances, this will form a new diagnosis of pregnancy in certain cases.

The next demonstration will be devoted to the consideration of blood in its physiological conditions and relations, and to the circulation as seen in the web of the frog's foot, tadpole's tail, or bat's wing, and to the necessary manipulation.

ORIGINAL COMMUNICATIONS.

CASE OF CÆSARIAN SECTION AT THE FULL PERIOD OF UTERO-GESTATION,

ON ACCOUNT OF A

LARGE FIBROUS TUMOUR OCCUPYING THE PELVIC CAVITY.

By CHARLES WALLER, M.D.

Obstetric Physician to St. Thomas's Hospital.

The following interesting yet melancholy case occurred in the practice of Mr. Evans, surgeon in Blackfriars-road, who, on discovering its nature, applied at St. Thomas's Hospital, on Monday, Feb. 7th, with a view of obtaining the patient's admission into my ward. Mr. Fernie, the resident accoucheur, promptly communicated with me, and accompanied me to Mr. Evans's residence, in order that an immediate consultation might be held. The age of the female was 41; she had been married about fifteen months, had twice miscarried, but had now arrived at the ninth month of gestation; her mother was of delicate habit, and died in childbirth at an early age, leaving, however, several healthy children. Mr. Evans had visited her about a month since, in consequence of a slight hæmorrhage, which was speedily subdued, no vaginal examination being required. She was now the subject of a slight bronchial attack, which produced a sharp teasing cough, with tough, viscid expectoration.

Mr. Evans was called on Saturday, Feb. 5th, on which day slight labour pains occurred for the first time, although the liquor amnii was said to have been discharged on the 3rd inst. The uterine paroxysms were slight, the intervals between them long, the waters gradually dribbling away. On examination, Mr. Evans detected what appeared to be an appalling degree of pelvic deformity, almost entirely closing up the brim of the pelvis. Through this narrow passage, two fingers could with difficulty be introduced; no os uteri could be felt, neither could the precise presentation be discovered. It did not, however, appear to be the head. The pains being slight, and no constitutional disturbance present, Mr. Evans determined to watch the case for a while, in the hope that the child might descend, and thus enable him to ascertain with more precision the presenting part. There was little alteration in the symptoms until this evening (Feb. 7th), when the pains increased somewhat in force; but there was still no "bearing down." On my arrival, I found the female in a tolerably tranquil state, the circulation not much hurried, the skin natural; the breathing, however, difficult, and the cough troublesome. On an external inspection it was apparent that the entire uterus was excluded from the pelvis, forming a very abrupt oval prominence in the middle of the abdomen, over which the parietes were tightly stretched. A line drawn in the direction of the linea alba from the umbilicus to the symphysis pubis measured nine inches. On examination per vaginam a tumour of bony hardness was felt nearly blocking up the entire pelvic cavity; from its hardness, immobility, and *apparent* connexion with the sacrum (for we could not separate the one from the other by pressure) my impression was, that Mr. Evans's diagnosis was correct. As it was perfectly clear that no child, however mutilated, could be brought through the natural passages, that nothing short of an abdominal section would be sufficient for the patient's relief, it was determined to avoid unnecessary manipulation, lest injury should be inflicted on the soft parts. The space between the anterior portion of the tumour and symphysis pubis was precisely 1¾ inch, whilst the lateral diameters were also greatly encroached upon. In the present condition of the patient, my opinion was decidedly opposed to her removal from her own habitation. The weather was cold, and her apartment convenient, comfortable, and, above all, very warm. It was, therefore, determined with the consent of the patient, and concurrence of the husband (after explaining to them the formidable nature of the case), that the Cæsarian section should be immediately performed in the apartment where she was then lying.

Mr. Le Gros Clark was sent for, and, in the short interval which elapsed prior to his arrival, a common enema was administered, and the urine drawn off by the catheter. The temperature of the room was kept up, and care taken to

exclude all draughts of cold air. Some lines were drawn on the abdomen, with tincture of iodine, transversely to the direction of the intended incision, to serve as a guide for the future apposition of the divided parts.

The patient was then placed on a high table, the legs hanging over one end, and the head and shoulders well supported at the other. Mr. Evans took his station on her left, and was directed to place one hand on each side of the abdomen after the opening had been made, to keep up a steady pressure during and after the removal of the child, for the purpose of preventing the escape of the viscera. A friend of Mr. Evans took charge of the legs, while Mr. Fernie, acting as Mr. Clark's assistant, supplied him, from time to time, with ligatures, and whatever was required during the operation. My own position was on the patient's right, that I might be in readiness to remove the child and placenta as soon as the uterus was opened, Mr. Clark standing a little below me.

At this time the uterine efforts were rather more frequent, the pulse slightly accelerated, and somewhat deficient in power, though not to any considerable extent. An attempt was made to exhibit chloroform in the usual manner, but the sense of suffocation and constantly threatening cough rendered it necessary to desist before its full effect had been produced.

A vertical incision, about seven inches and a half in length, was made along the middle line, extending from just below the umbilicus to within an inch and a half of the symphysis pubis. By this incision, the integuments, with their subjacent cellular tissue, were divided, and the linea alba fairly exposed. A small opening, just sufficient in size to admit the finger, was made through the lower part of the linea alba; into this aperture a blunt-pointed bistoury was introduced on the fore part of the index-finger of the left hand, and carried upwards to the umbilicus. By this section the entire linea alba was divided to the extent before mentioned. On the retraction of the muscles, the parietal peritoneum was found still covering the uterus like the sac of a hernia. This was accidental, not intentional; the very ready way in which the serous membrane separated from the linea alba, giving at first the impression that the sac of the peritoneum had been entered. The division of this membrane was instantly effected, when the uterus was fully exposed to view. This organ was then opened, a small incision into its cavity having been first made, and the finger introduced, to ascertain whether the placental attachment would interfere with the proposed incision; this not being the case, the opening through the anterior wall of the uterus was enlarged to an extent sufficient to allow the passage of the child in the same manner as the division of the linea alba, *i. e.*, with a blunt-pointed bistoury resting upon the ungual phalanx of the forefinger. The removal of the fœtus and placenta was easily and speedily effected; one of the buttocks had been the presenting part. The child, though at first showing no signs of life, was resuscitated by the usual means, namely, friction, artificial respiration, etc. These means were vigorously adopted by Mr. Fernie, to whom the child (a female of normal size) had been transferred after its separation from the mother. A free gush of blood followed the detachment of the placenta, after which the uterus contracted, though feebly, and no further hæmorrhage took place.

Up to this period, the operation had proceeded without any interruption whatever; but, unfortunately, at this moment the patient was seized with an irrepressible fit of coughing, in consequence of which, notwithstanding the utmost caution was taken to prevent such an occurrence, the intestines were forced out *en masse*. This occurred thrice, and, as vomiting was also induced by the attempt to expectorate, it was thought better, after clearing away the extravasated blood, at once to close the opening, although the uterus had not satisfactorily contracted itself, the cut edges of its parieties remaining much everted. The integuments were accurately brought together, and secured by means of the interrupted suture, an aperture sufficient to allow the escape of any discharge being left at the lower extremity of the wound. A pad of lint was placed along the line of suture, secured by broad transverse strips of adhesive plaster, and the whole supported by a broad abdominal bandage. The patient was then carefully placed in bed on her back. Scarcely any blood was lost, with the exception of the gush which followed the extraction of the placenta. The pulse did not appear to be affected during the operation.

The patient had a severe fit of shuddering on being removed to her bed, and complained of great coldness. The temperature of the body did not appear to the touch to be reduced, the skin feeling comfortably warm. She was wrapped in a blanket, and tinct. opii 5i. given in a little water. The remedy soon influenced the system; there was drowsiness, and doubtless there would have been sleep had not the cough been harassing and almost incessant for the space of two hours. About this time (2 a.m.) she complained much of her position, and expressed a wish to be turned on her side. Mr. Fernie, who kindly remained with her during the night, thinking that the cough might be alleviated by change of posture, very carefully placed her on the left side, the back being well supported by pillows, almost immediately after which she fell asleep, and scarcely awoke until nine o'clock. Hyd. chlorid. gr. iss, pulv. opii gr. i., in the form of pill, had been given every three hours, commencing at one o'clock a.m.

Feb. 8.—Awoke at nine o'clock, much refreshed by her sleep, but complained of thirst; pulse 120, full, and sufficiently powerful; skin very moist and warm; no abdominal tenderness; cough troublesome; great desire to expectorate, but inability to do so. There is a clear viscid discharge from the wound, without any admixture of blood. The lochia pass through the vagina. Wine and water and toast-water were administered during the day, the former cautiously, the latter freely; the pills continued through the day. Towards evening, the cough remaining very troublesome, a small blister was applied to the chest, and an expectorant mixture ordered. 11 p.m.—Not so well. Countenance anxious and flushed; expresses a strong conviction she will not recover. Tongue covered with brown fur; pulse more feeble. There has been no more rigor; no pain or tenderness in the abdomen. At 12 p.m. the bladder was emptied, about six ounces of urine having been removed. Mr. Fernie has been with the patient the greater part of the day, and will again watch her during the night.

9th, 2 p.m.—Remains very thirsty, and occasionally wanders; has no pain, and still continues to doze. At 4 p.m., she took a pill, and again was soon apparently dozing. At 7 o'clock there was a sudden change for the worse; the pulse increased in frequency, but diminished in force; the countenance became pallid and anxious; the lower jaw dropped; the lips livid, and the power of deglutition was nearly suspended; a cold clammy sweat broke out on the face; in short, the symptoms seemed to indicate immediate dissolution. The patient was partially raised in bed, and brandy and ammonia liberally given. This was presently followed by a marked amelioration of these death-like symptoms; the pulse increased in fulness; consciousness returned, so that she addressed her husband quite rationally. A teacupful of arrowroot was now given her; there was no abdominal uneasiness; complained much of thirst, and craved for toast-water. This rally was of short duration. about nine o'clock she began again to sink, and, notwithstanding the exhibition of stimulants, no re-action took place. The patient survived until a quarter past one p.m., when death terminated her sufferings, thirty-six hours after the performance of the operation.

Autopsy. — The body was examined twenty-four hours after death. On removing the bandage and plasters, the length of the incision was found diminished to six inches, from the contraction of the wound, which was most healthy in appearance. Adhesive matter had been effused along the upper half of its course. No peritoneal effusion had taken place, neither were there any marks of inflammation of that membrane. No clot was found in the abdominal cavity. The edges of the incised uterus were much everted. This organ was now carefully removed. As soon as it was raised, a fibrous tumour of considerable size was seen occupying the fundus of the uterus. On the left side of the fundus another but smaller tumour had developed itself, having a pedunculated structure; there were also three or four smaller nodules in its neighbourhood. As the uterus was further raised, its whole posterior surface was found enormously thickened by fibrous deposit, and a large pedunculated tumour, nearly equal in size to the head of a small fœtus, occupying the whole of the pelvic cavity anterior to the sacrum. This large mass had been developed on the left side, behind the os uteri, and had descended between the uterus and vagina. It was exceedingly hard and firm, and had given rise, during life, to the supposition that it was bone. Around the base of this tumour were several nodules

of smaller growth. The accompanying sketch, executed by Mr. Fernie, conveys a very accurate representation of the entire organ when removed from the body :—

The ovaries were perfectly healthy. A portion of the tumour has been microscopically examined by Dr. Bristowe and Mr. Rainey, both of whom pronounce it to be of a true fibrous character, corresponding in structure with the uterus itself. The increased development of muscular fibre during the period of utero-gestation rendered the microscopical examination more satisfactory, and the demonstration more clear, than when portions of these growths taken from the unimpregnated organ have been submitted to such inspection.

The child has been supplied with a wet nurse, and is doing remarkably well.

I must not conlude the history of this case without expressing my thanks to Mr. Le Gros Clark, for the promptness of his attendance, and, at the same time, bearing my testimony to the skill and dexterity with which he performed the surgical part of the operation.

From a careful review of the case, I cannot but think that our patient would have had a tolerably fair chance of recovery, had it not been for the unfortunate complication of her bronchial affection, although with such a diseased condition of uterus, her life might not have been prolonged to a very lengthened period.

Finsbury-square.

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

MIDDLESEX HOSPITAL.

[By S. W. SIBLEY, Esq., late House-surgeon.]

FRACTURE OF THE TUBERCLE OF THE TIBIA BY THE MUSCULAR ACTION OF THE RECTUS FEMORIS.

[Under the care of Mr. DE MORGAN.]

JOHN C——, aged 17, admitted April 7, 1852. The patient is a very scrofulous-looking lad, emaciated, with remarkably blue conjunctivæ, and having several scars on his head and extremities, evidently connected with diseased bone. He stated, that while walking in the street he slipped, but saved himself from falling by catching hold of the railings. He felt something give way in the knee, and immediately found he was unable to walk. When admitted, the left knee was much swollen, the swelling taking the shape of the joint, but extending downwards some inches over the inner surface of the tibia. The patella the injured side was drawn up a quarter of an inch higher than that on the other side. The tubercle of the tibia, with a piece of bone about an inch long, could be felt as if chipped off from the head of the tibia, the fragment remaining attached to the ligamentum patellæ and being drawn up with it. On holding the fragment between the fingers and moving it upon the bone beneath, distinct crepitus could be felt. The patient was at once placed on an Earle's bed, the limb extended and raised, and the thigh flexed on the body, as in fractured patella. He was ordered a purge, fourteen leeches to the knee, and a fomentation.

The next day some febrile symptoms had set in. There was a good deal of heat about the joint, but the swelling was somewhat less. The leeches were ordered to be repeated.

The third day after the accident, April 19, he was still complaining of much pain in his knee, which kept him awake at night. The knee was considerably swollen and heated; the patella was now half an inch higher than in the other leg. Pulse with a good deal of power. The leeches were again repeated.

On the sixth day after the accident the pain still remained in the knee chiefly at one spot on the inner side of the patella, a small quantity only of fluid in the joint. Pulse reduced in power. He was ordered to remain on low diet, and to take some aperient medicine.

On the seventh day he had a return of pain in the joint, with some fresh effusion; this kept increasing till the tenth day, after which it again began to diminish. He then began to complain of his foot, where a small abscess was forming over the metatarsal bones. After this he had several fresh slight attacks of inflammation in the joint,—none of which, however, required leeching,—until, at the end of about three weeks, the effusion was quite gone. The patella was then drawn up less than a quarter of an inch.

At the end of four weeks union commenced, but still the fragment might be moved on the tibia. The union gradually became more firm, till, after seven weeks, he was allowed to get up, at first wearing a splint behind the knee. After a few days this was left off, and in a week or so more he was able to walk about and to bend his knee.

After this his foot became very troublesome, and necrosis of the fourth metatarsal bone was discovered. This obliged him to keep to his bed again till after the dead portion of bone was removed. During this time he took some tonic medicine, and in two months more was discharged from the hospital.

In the month of December last he had completely recovered the use of his leg, being able to walk about with only a slight limp, which, he says, is owing to his foot, (where there still remains a small piece of diseased bone.) The fragment is perfectly firm; there is some thickening of the bone around it.

To comprehend the exact nature of the accident in the above case, we must refer to the manner in which the tibia becomes ossified. It will be remembered, that the tubercle of the tibia and the head of that bone are ossified from a single nucleus of ossification, the tubercle being a little tongue-like process, extending downwards from the head of the bone; however, in some extremely rare instances, (Mr. Quain having only seen one,) the tubercle has a separate nucleus of ossification. Hence, up to the time of manhood, the tubercle of the tibia has no ossific union with the shaft of that bone; and one readily sees how the tubercle might be torn away from the rest of the tibia, either from the neck of the tongue-like process being fractured, or, where the tubercle is ossified, from a separate centre, from its being torn away without any fracture.

It should be observed, that the fracture in question should not be considered as a variety of fracture of the tibia, but rather as one of that series of accidents (generally produced by the muscular action of the rectus) allied to fracture of the patella, being, in fact, a tearing away of the attachment of the rectus, taking with it a portion of the bone into which it is inserted.

There is little need of remark on the treatment of fracture of the tubercle of the tibia; the treatment would be the same were the fracture caused by muscular exertion, or, as is quite possible it might, by direct violence. The point to be avoided is, that the tubercle be drawn upwards away from the rest of the tibia; the means to obviate it must, of course, be precisely the same as those adopted in fractures of the patella. Hence the leg must be kept straight on the thigh, and raised up, the trunk at the same time

being supported. The result, however, in the present instance, contrasts with that commonly met with in fracture of the patella; for there can be little doubt that, in the case above recorded, the union of the fracture was osseous—a circumstance that would be expected when the abundant powers of nutrition possessed by the lower portion of bone are considered.

With regard to the extreme rarity of the accident, it may be mentioned, that it is not spoken of in systematic works, and, indeed, we do not know of any previously recorded example.

FRACTURE OF THE THYROID CARTILAGE, IMMEDIATE LOSS AND GRADUAL RECOVERY OF THE VOICE.

[Under the care of Mr. MOORE.]

T. B., a robust man, aged 40, was admitted into the hospital March 29th, 1852. The patient worked at a timber-yard; and he stated that he had been standing on the top of a pile of timber, while another man below was passing some planks of mahogany up to him. As he stooped to catch hold of one of these, the plank struck against his throat, and he immediately found he was able to speak only in a whisper. On an examination of the throat, there was found to be complete absence of the prominence of the pomum Adami. The hyoid bone might be felt quite sound, and in its proper place; the two lateral halves of the thyroid cartilage might also be felt; but, instead of forming an acute angle with each other, they made a very obtuse one, the cartilage being flattened out. The crico-thyroid membrane was stretched. The examination caused considerable pain, and a sensation of choking. His voice, which he stated was naturally strong, was reduced to a husky whisper; respiration quiet. As attempts to replace the portions of the thyroid cartilage failed, but caused great pain, they were not persevered in; the patient was ordered to lie quietly, with a fomentation to his throat.

The next day he had no pain in his throat, except when he attempted to swallow his saliva. Some tenderness over the larynx. Respiration quite tranquil, can protrude his tongue freely. From this time the patient progressed without any unfavourable symptoms, and was discharged from the hospital a fortnight after admission. His voice was then husky, and scarcely stronger than a whisper. He could swallow well, but with some pain, and there remained a slight amount of tenderness on pressure. The portions of the thyroid cartilage were exactly in the same position as they were at the time of his admission.

The patient again came to the hospital last month, having met with some slight accident. At this date (nearly nine months after the original accident) he had recovered his voice so far as to be able to speak in a firm deep voice, which, he says, is precisely the same as it was before he met with the injury to his throat. He states, however, that after he has been speaking for long together, or after he has been calling out loudly, his voice becomes weak and husky, and occasionally quite leaves him. The portions of the thyroid cartilage are still flattened out as before described, and all the parts of the larynx, etc., are exactly in the same condition as they were when he was in the hospital.

In the above case, there is an example of a severe injury inflicted on the organ of voice, producing considerable alteration in the situation of various important parts of the larynx, ending in recovery and adaptation of the injured portions of that organ to the altered position of the remaining parts. The alterations produced by this fracture may be readily observed if a partially ossified larynx be removed from the dead subject, and the thyroid cartilage be fractured through its ridge. It will be then seen that when the two halves of the cartilage are flattened out so as to make the angle they form with one another an obtuse one, the crico-thyroid membrane becomes more tense, and the two ends of the thyro-arytænoid ligaments approach one another. Now, on watching the vocal cords it will be seen, that both these movements tend to render them lax. The effect on the thyro-arytænoid will, of course, be the same as on the vocal chords,—that is, the muscle will be rendered lax, and, therefore, incapable of further contraction.

The first effect, therefore, of the accident in question was to relax the vocal chords, to interfere with the action of the thyro-arytænoid muscle, and to destroy the action of the crico-thyroid. This fully accounts for the immediate loss of voice after the accident; but the great interest of the case rests in the fact, that voice was recovered at the end of a few months. Hence the vocal chords must have become shorter, and the various muscles that have been spoken of adapted to the alterations in length they had been subjected to. All this had taken place in the course of a few months, so perfectly that the function of the organ was but little interfered with; and it is remarkable, that the voice as restored (if we can judge from the patient's own account) was not altered in pitch.

HOSPITAL FOR WOMEN.

CASES OF INDURATION AND HYPERTROPHY OF THE UTERUS.

[Under the care of Dr. TANNER.]

Amongst the numerous cases of induration and hypertrophy of the uterus, especially of the lips and neck of this organ, the result of chronic inflammation, which come under the observation of the physicians of this hospital, there have lately occurred two instances probably deserving the attention of our readers, since they possessed more than ordinary interest, owing to their general severity and to the distressing symptoms for alleviation from which relief was sought. The first case, which we will briefly relate, in part derived its value also from the circumstance, that when the patient was first seen, it was very difficult, if not impossible, to say whether the disease was simple induration of the cervix uteri or carcinoma; the history, lancinating pains, and sensation of stony hardness communicated by the finger, on examining *per vaginam*, leading to the opinion that it was a case of scirrhus. This diagnosis was, moreover, strengthened by the existence of a hard nodule in the left mammary gland, which certainly had a most suspicious feel; and which, according to the statements of the patient, gave rise to symptoms favouring the idea that the disease was malignant. On the other hand, the limited extent of the disease and the age of the patient were circumstances in favour of the affection being simple induration.

Harriet B., aged 33, married, and has had five children; the last pregnancy occurred five years ago. Catamenia regular as to time; generally very abundant, sometimes continuing fourteen days, always attended with pain, and followed by a leucorrhœal discharge. On admission into the hospital, 15th Nov., 1852, she stated that she had been in a bad state of health since her last labour, and that she had been getting gradually worse until the present time, when, from weakness and pain, she was quite unable to follow her usual household occupations. She complained principally of constant pain in the back, of a feeling of weight in the pelvis, with bearing-down pains, of pain during defæcation, and of a frequent desire to pass water, which compelled her always to rise two or three times in the night. Sexual intercourse aggravated her sufferings, so that lately she had been unable to allow it. She also complained of a hard lump in the right mammary gland about the size of a walnut, which was at times very tender and painful, especially at the catamenial periods. This swelling had only been discovered within the last few months. On examination *per vaginam*, the whole of the uterus appeared enlarged. The labia uteri were enlarged and hardened, and gave a sensation to the finger as if small peas had been inserted under the mucous membrane: the lips were, in fact, nodulated; and above these nodules the entire cervix could be felt indurated and congested. The os uteri was patulous, admitting the tip of the finger; the uterine sound passed with some difficulty for 3¼ inches. She was ordered to keep quiet in bed. Leeches were applied to the lips of the uterus, and also to the right mamma; and she took some mild saline aperients. A warm hip-bath was likewise used before the application of the leeches. In the course of a few days three leeches were re-applied to the uterus, with greater relief than on the first occasion; and, although at the end of ten days she appeared very weak, still all the distressing symptoms were much mitigated, though by no means removed. The induration of the lips of the uterus, moreover, did not appear to be diminished, and, consequently, it was determined on the 26th Nov. to apply the potassa fusa cautiously to the affected parts. This was accordingly done; and at the same time she was ordered the liquor hydrargyri bichloridi, in drachm doses, thrice daily. Under this treatment she quickly improved, and on the 6th December the catamenia came on with much less pain than usual, and only continued four days. The potassa fusa was re-applied on the 20th December, and again on the 27th, and on the 31st she was so much better, that, at her very earnest request, she was made an out-patient, her family demanding her immediate attention. At this time she complained of some weakness. She had only slight uneasiness in the uterus on making any exertion, and the pain and swelling in the mammary gland had quite disappeared. The lips of the uterus did not, however, feel healthy to the touch, though the induration was very much lessened. She was directed to keep herself as quiet as she could, and was ordered the syrup of the iodide of iron, in half-drachm doses, three times daily.

She has since continued to attend the hospital as an out-patient, and is now very nearly well in every respect: she will be discharged in a few days.

Lucy E., aged 42, married, and the mother of four children, the youngest five years old. Admitted into the hospital, under the

care of Dr. Tanner, November 13th, 1852. Catamenia regular, but preceded by, and attended with, great pain, and followed by leucorrhœa. Complained principally of constant pain in the loins, of bearing-down pains, occasionally resembling the pains of labour; of a frequent desire to micturate, and of weakness, with great mental depression. On examination *per vaginam*, the labia uteri were found very hard, each being formed into a nodule about the size of a nut, which nodules were very tender on pressure: the uterine sound passed easily, in the normal direction, for rather more than 2½ inches. The treatment consisted in the local application of the potassa fusa, in the administration of the liquor hydrargyri bichloride and in constant rest, with a plain but nourishing diet. The caustic was applied on five different occasions, an interval of between twelve and fourteen days being allowed between each application. The result was a gradual improvement in health, and a relief of all the symptoms, so that she was discharged cured on the 27th January. On being seen a few days since, she stated that she remained quite well, and was in the enjoyment of better health than she had known for a long time past. The catamenia came on regularly without any pain, and although the leucorrhœal discharge continued, still it was very slight, especially in comparison to what it had been.

LIST OF SCIENTIFIC MEETINGS.

This Evening,	March 12.	ROYAL INSTITUTION.—*Subject:*—"On the Philosophy of Chemistry." By Professor A. WILLIAMSON. Three o'Clock.
———	———	MEDICAL SOCIETY OF LONDON.—*Subject:*—"On Psychotherapia." By Mr. DENDY. Eight o'Clock.
Monday,	March 14.	ROYAL INSTITUTION.—*Subject:*—"On Organic Chemistry." By Dr. A. W. HOFMANN. Four o'Clock.
Tuesday,	March 15.	ROYAL INSTITUTION.—*Subject:*—"On Animal Physiology." By T. WHARTON JONES, Esq., F.R.S. Three o'Clock.
———	———	PATHOLOGICAL SOCIETY OF LONDON. *Meeting of Council.* Seven o'Clock.
Wednesday,	March 16.	ROYAL INSTITUTION.—*Subject:*—"On Organic Chemistry." By Dr. A. W. HOFMANN. Four o'Clock.
Thursday,	March 17.	ROYAL INSTITUTION.—*Subject:*—"On the General Principles of Geology." By J. PHILLIPS, Esq. Three o'Clock.
———	———	HARVEIAN SOCIETY. Eight o'Clock.
Friday,	March 18.	ROYAL INSTITUTION.—*Subject:*—"On the Remains of Reptilians and of a Sand Shell recently found in the Interior of an Erect Fossil Tree, in the Coal Measures of Nova Scotia." By Sir C. LYELL. Half-past Eight o'Clock.
———	———	WESTERN MEDICAL AND SURGICAL SOCIETY.—After the Nomination of Officers, the following Papers to be read:—1. "On Uterine Hydatids." By Dr. B. SMITH. 2. "Sequel to a Communication on the Therapeutic Effects of the Preparations of Gold." By W. M. CHATTERLEY, Esq. Eight o'Clock.
Saturday,	March 19.	ROYAL INSTITUTION.—*Subject:*—"On the Philosophy of Chemistry." By ALEXANDER W. WILLIAMSON, Ph. D. Three o'Clock.

Medical Times & Gazette.

SATURDAY, MARCH 12.

POISONING BY LOBELIA.

IN our last Number we drew the attention of our readers to the shameful apathy which exists among our rulers in all that concerns the sale and administration of medicines; and we drew a comparison, not very flattering to this country, between our own Government and that of our neighbours in matters of sanitary legislation. The remarks which we then felt it our duty to make have been abundantly illustrated and verified by the proceedings which have recently occupied the attention of the Judges in the Central Criminal Court.

The facts of the case to which we then briefly but pointedly alluded, and to which we now again refer, lie within a very narrow compass; and for these particulars we are indebted to a special report of the proceedings.

It appears that a person named William Hobson Palmer, described in the Calendar as a *botanist (?)*, but who does not seem to have received any medical education, or to have obtained any medical qualification whatever, *attended professionally* a female named Charlotte Cardwell, who was said to be suffering under an attack of asthma, but who was evidently labouring, according to the evidence afforded by the *post-mortem* examination, under chronic bronchitis. We need hardly remind our readers, that spasmodic asthma and chronic bronchitis, although the first is often an accompaniment of the second, are really different diseases, and require very frequently most opposite methods of treatment. A remedy which might be given with perfect propriety when the bronchial tubes are only spasmodically constricted, would be wholly inapplicable when the same tubes are thickened and inflamed, and choked up with muco-purulent secretion. We may also add, that these two conditions of the lungs may be readily distinguished by means of auscultation.

Palmer treated this case with the remedies which he and his school consider as capable of curing all the maladies to which human flesh is heir; and his materia medica has undoubtedly the merit of simplicity, for it consists chiefly, if not entirely, of lobelia and cayenne pepper. These remedies were accordingly administered to the patient, under the direct advice and often by the personal assistance of the prisoner, the consequence being what any medical man might anticipate, namely, the aggravation of the disease and the death of the patient.

Mr. Clark, who made the *post-mortem* examination of the deceased, deposed that the lungs exhibited evidence of old-standing inflammation to an enormous extent, and that there were 16 oz. of fluid in one of the pleural cavities. The stomach was inflamed throughout its whole surface, and it exhibited traces of incipient ulceration.

Dr. Letheby, the Professor of Chemistry at the London Hospital, examined the contents of the stomach, and found in them 110 grains of lobelia. Dr. Letheby goes on to say:—

"That quantity of lobelia is quite sufficient to cause death. I have known much less than that to cause death. I have heard the state this person was in. Lobelia was not a proper drug to give her. It was a very improper drug to administer to a person with diseased lungs. I think lobelia so given would hasten the death of a person so diseased. A third of the quantity found in the stomach would have been sufficient to kill her. Lobelia is not used by medical practitioners as an emetic on account of its dangerous nature. I examined the bottles, and found they contained cayenne pepper and some demulsive medicine."

"Mr. Justice MAULE: Cayenne pepper is considered very good in the city, I believe. (A laugh.)

"Mr. COOPER (Counsel for the prosecution): Yes, it is very good in turtle soup."

Such is a specimen of the puerile kind of wit in which one of the Judges of the land indulges upon a trial involving an inquiry into the death by poison of a fellow-creature, and such are the jokes which excite the risibility of an Old Bailey audience.

The facts brought forward by the prosecution were then briefly these:—A woman is labouring under chronic inflammation of the lungs and effusion into the pleura; she is attended by a person possessing no legal qualification, and who has received no medical education; he administers lobelia, a narcotico-acrid poison, in such enormous doses, that, independently of what may have been previously

given, 110 grains are found in the stomach after death, or *three times as much as is sufficient to cause fatal effects.* The patient accordingly dies, and the Coroner, who is not a medical man, sends the case before a jury. After this evidence, which is surely sufficient to satisfy any reasonable mind, Mr. Ballantine, the counsel for the prisoner, asks with great *naïveté*, whether "His Lordship thinks there is sufficient to go to the jury;" to which His Lordship replies:—

"*I do not think there is.* It is admitted that it is customary to administer lobelia to persons afflicted with asthma, and frequently with good effect. The only question, therefore, is, did the prisoner administer an improper quantity recklessly and improperly to the deceased, knowing the inflamed state of the lungs at the time. The evidence that lobelia was given is clear, and that the deceased was labouring from asthma; but the prisoner had not the same advantage of knowing its effects upon her system, or the condition which the deceased was in, which those gentlemen had had who had made the *post-mortem* examination. If he had possessed that knowledge he might have come to the same conclusion that they did, viz., that it was improper to administer so large a quantity in the state in which the stomach was. There was no proof that he had himself administered an excessive quantity, neither did it appear that he had any means of knowing that her lungs were in such an inflamed condition, and therefore the jury would say the prisoner was not guilty."

Justice Maule has the reputation of being one of the soundest lawyers and one of the most profound mathematicians upon the bench, and we believe that this reputation is not undeserved; but we shall make no apology and feel no hesitation in exposing the lamentable fallacy of his logic upon this trial. He says, "It is admitted that it is customary to administer lobelia to persons afflicted with asthma, and frequently with good effect; *therefore*, there is no case to go before the jury." This is a piece of general reasoning, and he might just as well have affirmed, "It is admitted that it is customary to administer arsenic in skin diseases and in neuralgia; *therefore*, a person who administers a poisonous dose of arsenic to another person is not amenable to the law." Or, again, "It is admitted that it is customary to administer hydrocyanic acid in doses of one or two drops to allay irritation and relieve pain; *therefore*, a person who gives half an ounce of it is not culpable!"

Such is a specimen of this learned Judge's general logic; and now we come to his reasoning upon the facts, or, in other words, we pass from the abstract to the concrete. "The only question therefore, is, did the prisoner administer an improper quantity recklessly and improperly to the deceased?" Why, of course he did; for Dr. Letheby, whose evidence was entirely in accordance with the recognised facts of science, found in the stomach after death, *three times as much of the poison as was sufficient to kill the patient*, independently of the quantity which had probably been administered previously. Yes, but says Justice Maule, "Did he know the inflamed state of the lungs at the time?"

Now, here we will put a hypothetical question to Justice Maule. One man professes to mend a watch belonging to another, but, understanding nothing at all about the mechanism of a watch, he spoils it, renders it valueless, and then returns it to its owner. The owner brings his action for the damage done to the watch, and if Justice Maule were trying the case would he propose such a ridiculous problem to the jury as the following:—"It is admitted that the watch was in need of repair; it is also admitted that the defendant, professing to repair it, has only spoiled it; but did he know anything of the mechanism of the watch or of the nature of the repair which was required?" Such a ridiculous line of reasoning would not be attempted in the case of a watch, but when it is only human life which is at stake, the matter is wholly different. A person knowing nothing about the mechanism of the human body or of the diseases to which it is liable, may give as much lobelia and cayenne pepper as his victims choose to swallow without any fear of ulterior consequences.

But we must follow Justice Maule in his reasoning:—

"The evidence that lobelia was given is clear, and that the deceased was labouring from asthma, but the prisoner had not the same advantage of knowing its effects upon her system, or the condition which the deceased was in, which those gentlemen had had who had made the *post-mortem* examination."

We must confess that we cannot here entirely comprehend the meaning of the learned judge. Let us vary the syllogism:—"It is clear that lobelia was given; it is clear that the deceased was labouring from asthma; but it is not clear that the person giving the lobelia knew as much of the case during life as did the persons who made the examination after death." As far as we can make out, this is Justice Maule's meaning, and we may transpose the proposition thus:—"The prisoner knew nothing of the state of the deceased's lungs during life, but it is clear that he administered large quantities of lobelia to cure a disease, of the nature of which he was entirely ignorant; *therefore*, there is no case against the prisoner."

We really are involuntarily reminded of the "Crowner's Quest Law," so logically enunciated by the "Gravedigger" in *Hamlet*:—

"Here lies the water; good. Here stands the man; good. If the man go to this water and drown himself, it is, will he, nill he, he goes; mark you that? But if the water come to him and drown him, he drowns not himself; *argal*, he that is not guilty of his own death shortens not his own life."

But to proceed with Justice Maule:—

"If the prisoner had possessed that knowledge," (viz., the facts revealed at the *post-mortem* examination) "he might have come to the conclusion, that it was improper to administer so large a quantity of lobelia; but, as he had no means of knowing that her lungs were in an inflamed condition, the Jury would find that he was not guilty."

Here, again, Justice Maule, in attempting brevity, becomes somewhat obscure; but we think we understand his reasoning to be the following:—

"If the prisoner, who knows nothing of the mechanism of the human body, or of the diseases to which it is liable, had possessed the knowledge which it was quite impossible that he could possess, he would have been guilty of killing his patient; but, inasmuch as he knew nothing of the disease which he professed to cure, he was justified in administering as much of a narcotico-acrid poison as he pleased."

Or, again, we might paraphrase Justice Maule's remarks as follows:—

"If the prisoner, instead of being an ignorant quack, had been an educated practitioner, he would have known, by auscultation and percussion, and by other means, the nature of the disease under which the patient was labouring; and if, under these circumstances, he had administered lobelia in poisonous doses, he would have been clearly guilty of manslaughter; but, inasmuch as the prisoner has received no medical education whatever, he is quite at liberty to practise an art of which he knows nothing, although the destruction of human life may be the result of his pernicious exertions."

We leave it to the consideration of the Profession and of the rational portion of the public, whether we have overstated the false reasonings and the erroneous doctrines which have characterised this flagrant case; and we lay down our pen in disgust that such proceedings should be tolerated by an intelligent community in an enlightened age; and still more are we disgusted that quackery so

monstrous and so mischievous should receive, as it were, a species of sanction from those who occupy the judgment-seat.

TOXICOLOGY AT CORONERS' INQUESTS.

The future historian, in describing the manners and customs of the English in the middle of the nineteenth century, will doubtless devote some pages to an account of the alarming extent of both criminal and accidental poisoning. In perusing the description, our descendants will learn with astonishment, that the crime of poisoning was, about this period, largely encouraged by the criminal negligence of the State. This fact will be proved in several ways, but especially by shewing that the most deleterious agents were allowed to be openly and freely sold to the public; that confectioners were allowed to use these same agents to colour bon-bons and sweetmeats, as if they were perfectly simple and innocuous; and that the revenue of the kingdom was in part made up by a tax upon quack medicines—medicines which were known to have caused the deaths of numberless victims, both young and old. We can imagine the reader lingering over the recital of suicidal and murderous acts which will then appear incredible, and can fancy the complacency with which he will admire the probably concluding paragraph of the chapter, that the actors in these atrocious crimes owed their success more to the ignorance and folly of the age than to any dexterity they themselves possessed.

These thoughts have been suggested by the report of an inquest which was held a few days since at Dartford. From the account we have received, it appears that on the 27th January an inquiry took place before J. C. Cartaar, Esq., touching the death of one Elizabeth Reed. On this occasion it was necessary to adjourn, in order that an analysis of the contents of the stomach might be made by Mr. Culhane, who had previously performed the *post-mortem* examination. On the jury re-assembling, the Coroner stated that he had received a letter from Mr. Culhane, requesting that an analysis might be made by Professor Taylor; to which he replied, that it was out of his power to accede to such a request, as the Act of Parliament threw upon the medical man making the *post-mortem* examination the necessity of obeying the Coroner's order, and, in case of refusal, he (the Coroner) was empowered, upon being requested to do so by a majority of the jury, to call in another medical man to carry out the analysis. He was sorry to say, however, that the Act of Parliament did not sanction a sum of money sufficient to pay the expenses out of pocket, a sum of 2*l.* 2s. being all that was allowed. In all other counties but Kent and Surrey, an additional scale of fees had been made by the magistrates to meet this difficulty. The Coroner stated further, that the Act of Parliament imposed a penalty of 5*l.* upon the medical man disobeying the order of the coroner or jury in this respect, unless good and sufficient reasons were shewn to the contrary; and, having been informed that no analysis had been made, he observed that he must now inquire the reason his order had not been obeyed. In answer to the Coroner, Mr. Culhane said, that he had three excuses to offer: first, want of ability; second, want of proper apparatus and analytical skill; and third, want of proper remuneration; adding, that he felt it an important matter, as the interest and position of some respectable persons in the town might probably be involved in the case; and as he did not feel competent to perform the analysis, he must decline making the attempt. After reading a letter from Dr. Taylor, of Guy's Hospital, stating, amongst other things, that the expense of making an analysis would amount to six guineas, a written request to the parish officers was drawn up and signed by the Coroner and jury, demanding that, "for the ends of justice, an analysis might be made by Professor Taylor." The inquiry was then adjourned until the 14th inst.

These facts speak for themselves, and clearly prove, that unless we would put a premium upon crime, the law of coroner's inquests, and the scale of fees allowed to medical practitioners, must be reconsidered and revised. The duty of attending as a medical witness, in cases similar to the foregoing, is in itself a sufficiently unpleasant and ungrateful task, without being put to the annoyance of having to convince a not over-enlightened jury that certain legal dicta are absurd. The number of gentlemen in the Profession capable of making a complex chemical analysis is necessarily exceedingly small; and, in the present day, when medical science already embraces so many different and complicated studies, and when so much time and attention ought to be devoted to the careful watching of disease at the bed-side, it is preposterous to expect a student, and especially a practitioner, to be an expert chemist. The folly of making any man undertake a difficult task against his inclination, and against his conscious and declared want of skill, appears to us to be bordering upon madness.

DUBLIN HOSPITAL GRANTS.

We learn with regret that the unwise system of retrenchment in the grants made to hospitals in Ireland is being fully carried out by the present Government. We have before us a copy of a recent letter from the Irish Under-Secretary (Major T. A. Larcom) to the Governors of the Westmoreland Lock Hospital, Dublin, requiring an amendment and reduction in the estimate of expenses for the year ending 31st of March, 1854. The amount named in the first estimate sent in was 2500*l.*, while, as we learn from the Under-Secretary's letter, the sum recommended by the Lord-Lieutenant to be allowed by the Treasury is only 1750*l.*! There is no institution which stands so much in need of Government support, or requires to be dealt with more liberally, than a venereal hospital. Strong prejudices, which would ignore the existence of an actual and perhaps unavoidable evil, operate with a considerable portion of the public against institutions of this kind; and many a donation which would be freely given to the Fever Hospital or Infirmary is absolutely denied to the "Lock Hospital." In the distribution of the public funds, the Lock Hospital should, therefore, be considered a case apart, and it at least deserves to be excluded from the operation of the economising system now in force in Ireland. Indeed, we cannot but consider that the continued withdrawal of the grants to the Dublin hospitals, after the repeated and strong protests of all the great corporate bodies of the Irish capital, as well medical as commercial, is a most ill-advised measure. The cases of the London and the Dublin hospitals are widely different, and no argument can be drawn from the one to the other. The diminutions which have been already effected in the incomes of the Irish metropolitan hospitals have much crippled their resources, and diminished their efficiency in no inconsiderable degree.

PROFESSORSHIPS OF MILITARY SURGERY.

Last week we suggested the propriety of the Professorship of Military Surgery being in London established in connexion with the Royal College of Surgeons. From the subjoined letter, it will be seen that the Council of the Royal College of Surgeons in Ireland have already moved in the

matter, so far as it concerns the proposed Irish Chair of Military Surgery, and that the views of that body coincide, in the main, with those we have expressed. Will the London College remain silent after this?

"TO LIEUTENANT-GENERAL SIR DE LACY EVANS, K.C.B.

"Royal College of Surgeons in Ireland,
Dublin, March 4, 1853.

"SIR,—I am directed by the Council of this College to state, that their attention having been directed to a conversation which took place in the House of Commons on the 25th ult., between you and the Secretary-at-War, they have 'Resolved that a communication be forthwith made to the Right Hon. the Secretary-at-War, offering to co-operate with the Government in the establishment of a Professorship of Military Surgery in this College, as the legitimate Institution for such a foundation.'

"This resolution has been reported to Mr. Sidney Herbert, and I am further charged to offer you the thanks of the Council for your opening of this important subject, and to state, that they will be very thankful for any information you may wish to afford them as to the best mode of forwarding the object in view.

"I have the honour to be, Sir,
"Your obedient, humble servant,
(Signed) "H. MAUNSELL, Secretary."

THE DEATH OF DR. MANSON.

To the long list of Medical Practitioners who have fallen victims in the path of professional duty we have with regret to add the name of Dr. FREDERICK ROBERT MANSON, who died on the 4th inst., at his residence, Park-street, Grosvenor-square, in the 32nd year of his age. The following particulars of this gentleman's untimely decease are neither uninteresting nor uninstructive; and we trust that the warning they convey may not be altogether lost upon our readers, who, in trying to give health and assistance to others are but too often unmindful of their own feeble constitutional powers, and of their own liability to disease and death. It appears that Dr. Manson was in his usual state of health, when, on Tuesday, the 22nd February, he cut his thumb at table, but so slightly that he took no heed of it. Unfortunately, he was shortly afterwards summoned to a poor woman, a patient of the Royal Pimlico Dispensary, who had been suffering for more than a week with symptoms resembling those of typhus fever, and who had aborted three days previously, at the end of the third month of pregnancy; the placenta, however, had not come away. Thinking it necessary to remove this substance, he introduced his hand into the vagina, and after some trouble succeeded in dilating the os uteri sufficiently to enable him to take away the half-putrid after-birth, though not until his hand had been in contact with the parts for a considerable time. On afterwards rejoining a friend Dr. Manson remarked upon the danger he had incurred, and stated that, although some persons might have been deterred from fear of infection, yet he had acted from a sense of duty to the poor woman. [We may add that she died a few days afterwards with symptoms indicative of purulent effusion into some of the joints, and also that the nurse in attendance upon her has since been seized with fever of a low type.] Dr. Manson again visited her on the following day, and on his return home fainted. He had not had his usual luncheon, having been summoned suddenly from home. The thumb now became somewhat painful, with an erythematous blush, and he stayed at home and fomented it, feeling ill. He did not invite any medical friend to his aid, but treated his own case, taking, it is to be feared, too much sweating medicine, and too little support and stimulus, till Saturday evening, the 26th, when, finding himself seriously depressed, and the local inflammation much on the increase, he was prevailed on to send for Mr. Bowman. This gentleman found the hand considerably swollen, without suppuration, but with lines of inflammation along several of the lymphatics, and a gland in the axilla slightly enlarged and tender. The patient was in a profuse perspiration, with excited, but feeble pulse; tongue much furred; respiration somewhat hurried, and abdomen slightly tympanitic. He was perfectly collected, though he was said to have wandered a little, and he spoke of his case hopefully. His relatives, however, are of opinion, that from the first he had a desponding feeling, and thought his symptoms very serious. He would not, from the second day, allow his children to be brought to him, lest they might contract typhus fever. Notwithstanding this, his little girl, and another member of the family, were seized with ulcerated throat and swollen glands of the neck, from which they are happily recovering. Ammonia, chloric ether, and bark, were at once freely administered by Mr. Bowman, together with brandy, in considerable quantity, and a drink of sulphuric acid. The boundary of the erythematous blush, and the lines of inflammation in the course of the lymphatics, were touched with nitrate of silver, and the spread of the inflammation along the skin appeared to be effectually checked by this remedy, though unfortunately on the next day (Sunday,) the cervical glands on that side exhibited signs of irritation. So rapid was the extension of the mischief along the lymphatics, that, on Sunday evening, the whole right side of the neck was greatly swollen, with a pinkish blush, and he could with difficulty turn the head. The hand continued swollen, but not greatly so, while the arm and forearm retained their natural size, all appearances of inflammation having vanished from them. The case had, up to this time, seemed one of danger, but now the worst was foreboded, and his nearest relatives being summoned from the country, the last arrangements of his affairs were made, under the most perfect resignation of mind, and a serene calmness which it was affecting to witness. He took an opiate, and passed a more quiet night. On Monday morning Dr. Todd's aid was requested. He continued, together with Mr. Bowman, to make the most unremitting exertions to save this valuable life, up to the last moment. The further progress may be but too briefly told. On Monday morning there was more prostration, and it was necessary to continue the cordials in augmented doses, and at more frequent intervals. Monday night was passed in a state of delirium, often rising to high excitement, and on the following morning he was greatly exhausted, and seemed about to sink. The swelling of the neck was much reduced, but the abdomen was tympanitic, the breathing hurried, and the pulse very feeble. From this time, however, his strength rallied somewhat, and in the afternoon he was able to have the whole body rapidly sponged with hot water, which seemed yet more to revive him. The pulse still did not beat more than 120, and he became once more able to recognise his friends, and to make rational suggestions as to the treatment of his case. This improvement was, unhappily, but of short duration. Delirium, though of a milder kind, returned during the night, and on the following morning (Wednesday) he was manifestly weaker, the pulse rising in frequency to 140, and the next day to 160 beats in a minute. He breathed his last early on Friday morning, the 4th inst., less than ten days after the fatal inoculation. He has left a widow and two young children to deplore their irreparable loss.

The Spaniards have a proverb, "Al hombre bueno no le busquen abolengo," which may be rendered, "Seek not for a good man's pedigree. Mindful of this, we will only say, that Dr. F. R. Manson was a son of the late Dr. Manson, F.R.S.E., of Nottingham, and brother of the Rev. Dr. Manson, vicar of Glossop, in Derbyshire. He was educated at King's College, London, and was an M.D. of the University of London, a Licentiate of the Royal College of Physicians, and formerly a Lecturer on Midwifery at the Hunterian School of Medicine. He was a man of most estimable private character, and a devoted friend of the poor, among whom he had laboured assiduously and most kindly in more than one public position; and he was acquiring by degrees the confidence and esteem of a large circle of private patients at the time of his premature decease. He entertained the highest views of professional duty, never disregarding the call of any patient, being particularly prompt to attend on all poor persons soliciting his aid, irrespective of their power to remunerate his services. He was frequently known to say, that if it was his duty to obey the summons of a patient who could make a return for his assistance, much more was it right that he should attend promptly to the poor applicants at the public dispensary, who could less well provide for themselves the many solaces of illness, and whose afflictions were so often aggravated by the circumstances of their condition. On the very occasion when he contracted his fatal illness, a friend remonstrated with him on paying a second visit to the poor woman when he did not feel well,

but his answer was, that it was his duty, and how could he shrink from it? Such sentiments do honour to his Profession and to humanity, and they may serve in some feeble measure to soften the grief of his afflicted relatives under their heavy bereavement.

We must not conclude this notice without mentioning, that it is the opinion of Mr. Andrews, the surgeon who attended the poor woman with Dr. Manson, that her fatal disease was contracted from the effluvia of the great open Ranelagh sewer, which runs close by her dwelling. May the time speedily arrive when all such pestiferous causes of disease shall be removed, destroying, as they do, with an undistinguishing and cruel fury, not only their immediate victims, but those whose courage and devotion to their noble duty lead them to minister to the sufferers, even at the imminent risk of their own lives!

DRUGS,
THEIR
IMPURITIES AND ADULTERATIONS.

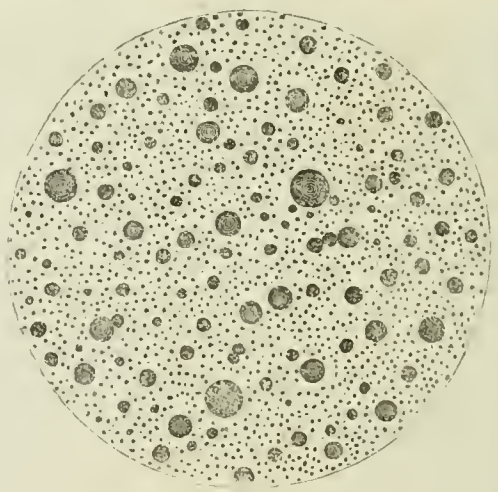
UNGUENTUM HYDRARGYRI FORTIUS—STRONG MERCURIAL OINTMENT.

Among the mechanical preparations of mercury, the mercurial ointment is one of the most important. It consists of mercury and lard in nearly equal weights, triturated together until they form a dark bluish ointment, destitute of any visible globules of mercury. This is a long and laborious process, the globules are slowly extinguished, and remain for a long time apparent to the naked eye. Dr. Christison states, that the ulterior division of the metal is not proportionate to the labour of continuous trituration, but that considerable labour is saved by triturating for a short time once or twice a day, leaving the mixture in the intervals exposed to the action of the air, so that the whole process is spread over several weeks. The ointment is now seldom made by hand, but the manufacture is performed by machinery, which consists of a trough, in which two iron balls are propelled by steam power, while the lard is kept in a fluid state at a temperature of 100 degrees Fahrenheit. In this way, according to Dr. Christison, the process is completed in about twelve hours.

Under certain circumstances, and with old or somewhat rancid fats, the extinction of the mercury is much more easily accomplished. The plan proposed originally by Guibourt, consists of triturating the mercury with a small portion of long-kept mercurial ointment, and gradually adding the necessary proportion of fresh lard. Simonin proposes to employ lard which has been exposed to moist air in thin layers for some weeks. In either of these cases fatty acids are generated by exposure to the oxidising influence of the atmosphere, and it is most probable that they exercise an important influence on the minute division of the globules of mercury.

It has been a question whether, during the manufacture of the mercurial ointment, any of the metal undergoes oxidation. On this point, Dr. Christison states, that Mr. Donovan proved, many years since, that a large proportion of the mercury in the mercurial ointment is unnecessary, for after allowing four-fifths of the mercury to subside from the melted ointment, the supernatant portion was found to be as active in exciting ptyalism as the original ointment. Donovan thought that some portion of the mercury existed in the state of oxide, but Guibourt denies this conclusion, for he found that only $\frac{1}{500}$ of the ointment consisted of a compound of mercury with a fatty acid; and Mr. Watt appears to have been unable to detect any trace of oxide of mercury in the samples of mercurial ointment he examined. Dr. Christison, on the other hand, states, that he has only once failed to detect "a sensible quantity" of the oxide in the mercurial ointment of the shops. His process for the detection of the oxide has failed in our hands to give more than mere traces of the presence of oxide of mercury in the specimens of ointment we have analysed. He keeps the ointment melted, and at rest, in a long tube, for thirty-six hours, when the mercury subsides, and a layer of clear supernatant oil swims upon it. This oil, even after filtration, is blackened by sulphuretted hydrogen, and, if agitated with dilute acetic acid at a temperature of 150°, yields a liquid, from which a copious black precipitate of sulphuret of mercury is obtained by the same re-agent. He concludes that some oxide of mercury must be present, combined with a fatty acid, and he deduces, from his experiments, that the oxide amounts to about one per cent. of the ointment, and, consequently, to a fiftieth part of the mercury used in preparing it. In the process of manufacture by steam now employed, it is probable that, from the rapidity with which it is performed, much less oxide is produced than in the old process by hand labour; but, as we see that the ointment retains its full power of producing mercurialisation, it may be inferred that the effect is produced to a much greater extent while rubbing it into the skin; and this is confirmed by the fact, that severe ptyalism may be produced by enclosing metallic mercury in a linen band worn around the body. In the latter case, it would appear that the mercury is oxidised by the conjoined action of the atmospheric air and the acids of the perspiration.

Under a magnifying power of 400 to 600 diameters, the strong mercurial ointment presents an infinitude of minute globules, varying from $\frac{1}{1500}$ or $\frac{1}{1000}$ to $\frac{1}{500}$ of an inch, if the trituration has been sufficiently prolonged. Dr. Christison fixes the latter diameter as the largest that ought to exist in well-prepared mercurial ointment; the presence of globules larger than $\frac{1}{500}$ being a proof that sufficient labour has not been bestowed on the preparation. The subjoined wood engraving represents the appearance of ill-prepared ointment, the larger globules measuring $\frac{1}{800}$ to $\frac{1}{500}$ of an inch. Together with the globules of mercury, minute crystals of stearine are commonly seen, which are in some specimens collected in stellate bundles.



Strong mercurial ointment, magnified 400 diameters, showing the size of the globules of mercury.

In the subsequent analyses, a given weight of the ointment was placed in a tube closed at one end, and kept in a melted condition until the whole of the mercury had subsided. The clear oil was then carefully poured off, and the mercury was boiled with liquor potassæ until the remaining portion of the fat was saponified, and the mercury collected into globules. Finally, the mercury was well washed, dried, and weighed, every care being taken to prevent loss of the metal during the entire process.

The proportions of mercury and lard in the mercurial ointment are, by calculation,

Mercury	50·67
Lard	49·33
	100·00

Analysis 1.

Bought of Willmott, 83, St. Margaret's-hill, Borough:—

Mercury	49·90
Fat	50·10
	100·00

Many of the globules of mercury exceeded $\frac{1}{500}$ of an inch; the ointment tolerably well made, but the minute globules were not sufficiently numerous.

Analysis 2.

Bought of Cobb, 10, Frederick-place, Hampstead-road :—

Mercury..	43·35
Fat	56·65
	100·00

Well made; the globules of mercury not exceeding $\frac{1}{120}$ of an inch.

Analysis 3.

Bought of Johnson, Borough :—

Mercury..	44·25
Fat	55·75
	100·00

Well made; few of the globules of mercury exceeding $\frac{1}{120}$ of an inch. The mercury accompanied by a black pulverulent matter.

Analysis 4.

Bought of Morris, 70, Tottenham-court-road :—

Mercury..	48·05
Fat	51·95
	100·00

Well made; the minute globules of mercury exceedingly numerous, very few exceeding $\frac{1}{250}$ of an inch.

Analysis 5.

Bought of Watts, 11, Sol's-row, Hampstead-road :—

Mercury	41·80
Fat	58·20
	100·00

Globules of mercury exceeding $\frac{1}{120}$ of an inch, numerous, with many of still larger size; the mechanical division of the mercury insufficient.

Analysis 6.

Bought of Constance, 37, Leadenhall-street :—

Mercury..	44·25
Fat	55·75
	100·00

Well made; most of the globules of mercury not exceeding $\frac{1}{120}$ of an inch; a very few above that size.

Analysis 7.

Bought of Jackson, late Butler, (labelled G. Coleby and Co.,) 93, Cheapside :—

Mercury..	49·85
Fat	50·15
	100·00

Globules of mercury from $\frac{1}{80}$ to $\frac{1}{120}$ of an inch, very numerous, the more minute globules less so; the mechanical subdivision insufficient.

Analysis 8.

Bought of Phillipson, 116, Tottenham court-road :—

Mercury	47·40
Fat	52·60
	100·00

Well made; the globules of mercury not exceeding $\frac{1}{120}$ of an inch; the mercury accompanied by a considerable amount of black matter, and the fat, after subsidence, remaining quite black; this black matter is metallic mercury in an extreme state of division.

Analysis 9.

Bought of B. and A. Drew, 91, Blackman-street, Borough :—

Mercury	44·40
Fat	55·60
	100·00

A considerable number of the globules of mercury exceeding $\frac{1}{120}$ of an inch in diameter; some as large as $\frac{1}{60}$; mechanical division bad.

Analysis 10.

Bought of Pollock, 129, Fenchurch-street :—

Mercury	48·40
Fat	57·60
	100·00

Well made; very few globules of mercury exceeding $\frac{1}{120}$ of an inch; the mercury accompanied by a considerable amount of black pulverulent matter.

It will be seen, by a comparison of the numbers in the foregoing analyses, that none of the samples contain the full amount of mercury, while others fall considerably below it. This is the case especially in Analysis 2, where the mercury is deficient to the extent of 7·32 per cent.; in Analysis 3, 6·42; in Analysis 5, 8·87; in Analysis 6, 6·42; in Analysis 9, 6·27; indicating considerable deficiency in some of the samples. It has been a question, as already mooted by Donovan, whether the quantity of mercury ordered in the Pharmacopœias is essential; but, whether such be the case or not, it is the duty of the manufacturer to adhere strictly to the proportions directed by the proper authorities.

CALAMINE—NATIVE CARBONATE OF ZINC.

This mineral, by no means rare in various parts of Europe, is abundant in England, but is rarely found in the shops, —what is sold under the name of calamine being generally a factitious article. Calamine is found in great quantities at Shepham-cross; among the Mendip-hills, in Somersetshire; at Holywell, in Flintshire; Castleton, in Derbyshire; near Bristol, and elsewhere. Mineralogists have described several varieties, chiefly characterised by their state of aggregation. The chief varieties are the crystallised, the compact, and the earthy. The crystals are acute or obtuse rhomboids, or long quadrilateral tables. The compact varies in colour from greyish, yellowish, greenish, to brown, or red-brown, the play of colour being dependent on the admixture of different proportions of oxide of iron. The earthy variety is white, greyish or yellowish-white, soft, and adhering to the tongue. All these varieties are composed of carbonate of zinc, with a very small proportion of oxide of iron. Smithson's analysis of the crystallized variety from Derbyshire, gave oxide of zinc 65·2, carbonic acid 34·8, as its composition. The compact variety, analysed by the same chemist, was composed of oxide of zinc 64·8, carbonic acid 35·2; and the earthy variety, of oxide of zinc 71·4, carbonic acid 13·5, water 15·1.

Another mineral, composed of silica and oxide of zinc, or a silicate of the oxide of zinc, is found in Cornwall, also called, but incorrectly, calamine, which is occasionally substituted for the true calamine.

Calamine being employed externally, and entering only into one pharmaceutical preparation,—the ointment, it is necessary that it should be reduced to a fine state of division, and for this purpose it is levigated. In the Pharmacopœia it is directed to be heated to redness, to facilitate levigation; then reduced to a powder, and the finer particles separated by suspension in water and decantation from the coarser particles, as in the case of prepared chalk.

The process of roasting—especially if the heat has been strong or long-continued—alters the constitution of the mineral, by driving off a part, or sometimes the whole, of the carbonic acid, leaving, instead of the carbonate, an impure oxide of zinc, which effervesces slightly, if at all, when acted on by the stronger acids.

As met with in the shops, calamine is a fine, pale, dirty grey, or pinkish powder, varying in shade in different samples. The test proposed for ascertaining its purity by the London College is a very simple one, depending on its solubility in sulphuric acid. In the "Notes" to the Pharmacopœia calamine is characterised as "almost entirely soluble in diluted sulphuric acid, emitting a few bubbles of carbonic acid, unless it has been previously well burned. This solution, when ammonia or potass is added to it, gives a precipitate which either of them added in excess dissolves." Phillips, in his remarks on this process, says, "If soluble in sulphuric acid, the calamine can contain but little carbonate of lime. The sulphuric acid solution should be colourless, and remain so after the addition of excess of ammonia. If blue copper is present, if it contain iron, both ammonia and potass throw done the oxide, which neither of them redissolves when added in excess."

Notwithstanding the abundance of this mineral in various

parts of England and the European Continent, and its consequent cheapness, calamine of the shops seldom contains a particle of zinc, but is a mixture of cheaper minerals, chiefly sulphate of baryta, tinged to a greater or less extent by oxide of iron. Not one of the specimens we have subjected to examination was soluble in sulphuric acid, although some of them effervesced pretty strongly with dilute sulphuric acid, indicating the presence of a carbonate. They all, with the exception of that from Apothecaries' Hall, left an insoluble residue, varying from 90 to 100 per cent.; and even that from the Hall yielded a residue of 29 per cent. Of the ten specimens, that from the Hall alone showed the presence of zinc, and was a genuine although still very impure sample of calamine. In two instances, the residue after the action of sulphuric acid, being well washed and heated to redness, exceeded the original weight of the calamine submitted to analysis, which arose from the fact, that these specimens consisted chiefly of carbonate of lime.

Analysis 1.

Bought at Apothecaries' Hall:—

Genuine, but impure; containing 29·1 per cent. of residue insoluble in sulphuric acid; the remaining 70·9 consisting of oxide of zinc, with a small proportion of carbonate of zinc and peroxide of iron. No sulphate of baryta.

Analysis 2.

Bought of Morris, 70, Tottenham-court-road:—

Factitious.—Composed of sulphate of baryta, tinged with oxide of iron and a small proportion of carbonate of lime. Nearly insoluble in sulphuric acid. No zinc.

Analysis 3.

Bought of Constance, 37, Leadenhall-street:—

Factitious.—Composed of sulphate of baryta, tinged with oxide of iron, and a small proportion of carbonate of lime. The residue insoluble in sulphuric acid, 98·1 per cent. No zinc.

Analysis 4.

Bought of Pollock, 129, Fenchurch-street:—

Factitious.—Composed of sulphate of baryta, tinged with oxide of iron and a small proportion of carbonate of lime. The residue insoluble in sulphuric acid 95·3 per cent. No zinc.

Analysis 5.

Bought of Hay, 33, Charing-cross:—

Factitious.—Composed of sulphate of baryta, tinged with oxide of iron, but mere traces of carbonate of lime, and no zinc. The residue insoluble in sulphuric acid 98·0 per cent.

Analysis 6.

Bought of Drew, 91, Borough:—

Factitious.—Composed of sulphate of baryta, tinged with oxide of iron. A small proportion of carbonate of lime, but no zinc. Residue insoluble in sulphuric acid 90·6 per cent.

Analysis 7.

Bought of Hooper, King William-street:—

Factitious. — Composed of sulphate of baryta, with mere traces of lime and a small proportion of oxide of iron. Residue insoluble in sulphuric acid 97·9 per cent. No zinc.

Analysis 8.

Bought of Edwards, King William-street:—

Factitious.—Composed of sulphate of baryta, with a small quantity of carbonate of lime and oxide of iron. No zinc.

Analysis 9.

Bought of Jackson, late Butler, 93, Cheapside.—

Factitious.—Composed of silicate of lime and iron 78·4 per cent., the remainder being carbonate of lime with oxide of iron. No zinc.

Analysis 10.

Bought of Phillipson, 116, Tottenham-court road:—

Factitious.—Consisting of carbonate of lime, oxide of iron, and 32·8 per cent. of silicate of lime and iron. No zinc.

REVIEWS.

The British Medical Directory for England, Scotland, and Wales. 1853. London: *Lancet* Office.

The new Directory has at last appeared, and we feel it our duty to state that it is a very creditable production. Upon the much-contested point of the admission or exclusion of homœopathic practitioners, both Directories have arrived at the same results. It has been found inexpedient to omit the names of these parties, and they are therefore inserted, together with their academical titles, but without any allusion to their homœopathic appointments or writings.

Instead of separate lists for London, the provinces, Scotland, and Ireland, the "British Medical Directory" groups all practitioners of England, Scotland, and Wales together in one alphabetical list. A local list of metropolitan practitioners is given, but there are no provincial local lists. This is to be considered a defect, as it is undoubtedly advantageous to classify the practitioners in the various provincial towns, for convenience of reference, more especially in a Directory in which English, Scotch, and Welch are all placed in juxta-position.

The "British Medical Directory" has a green cover to distinguish it from its red rival, and is published at a very cheap rate. In addition to the information which it peculiarly professes to give, a great amount of useful and interesting matter is presented to the reader upon many points bearing directly and indirectly upon the interests of the Medical Profession.

The Dissector's Manual of Practical and Surgical Anatomy. By Erasmus Wilson, F.R.S. Second Edition. Pp. 611. London: Longman and Co. 1853.

This is a second edition of the work on anatomy in which Mr. Wilson first made his appearance as an author. The plan of the "Dissector's Manual" is entirely different from that of the "Vade Mecum" by which the author is extensively known to the medical public, the latter work being a compendious treatise on anatomy, the former being more peculiarly a guide to the dissecting-room. In the present volume we find accordingly, that all the parts of a particular region are described as they are revealed by the scalpel, without any other arrangement than that which is made by nature. In a Treatise on Anatomy, on the contrary, the parts are arranged in a systematic but artificial manner.

Mr. Wilson's attainments as a surgeon and an anatomist afford a sufficient guarantee for the accuracy of his descriptions; while his well-known skill as a draughtsman leave nothing to be desired in the sketches by which the manual is illustrated.

The work is dedicated, with great good taste, to Dr. Jones Quain, the early friend and patron of the author, and one of the best lecturers on anatomy and physiology that ever occupied the professorial chair.

Six Lectures on Materia Medica and its Relations to the Animal Economy. Delivered before the Royal College of Physicians in 1852. By John Spurgin, M.D. Pp. 204. London: Churchill.

The object of these lectures appears to be to consider the blood as the vital principle of the body, and all the diseases incident to human nature, as produced by alterations in the quantity or quality of this fluid. This view, which is in accordance with most modern views of pathology, is very ably illustrated by Dr. Spurgin in the course of lectures which compose the volume before us, and we may state, that the work exhibits traces, in every page, of being the production of a good scholar and a sound physician.

A Small Hospital has recently been established at Pimlico, which provides nurses for the sick poor in the neighbourhood. Several patients have already been admitted and discharged. Dr. Aldis has been appointed physician to the Institution.

The old and, in this country, long since obsolete practice of body-snatching, as it used to be termed, is, it appears, not quite out of date in the United States, a cart, in charge of a carman, named Eli Kane, having been stopped in Third Avenue, New York, and found to contain no less than four dead bodies. An inquest was held upon them, the verdict being death from causes unknown. The verdict also declared that the carman was ignorant of the nature of his cargo, and he was set at liberty accordingly.

PROGRESS OF MEDICAL SCIENCE.

SELECTIONS FROM FOREIGN JOURNALS.

CASE OF CONCEPTION BEFORE THE APPEARANCE OF THE MENSES.

By WM. T. TAYLOR, M.D., Philadelphia.

The general experience of the medical world has established it as a physiological fact, that conception cannot take place prior to the appearance of the menses. But there are instances of females becoming mothers who have never menstruated; they, however, must have conceived just at the time when the catamenia were about to be established, which after parturition and suckling probably occurred regularly.

The following case, which I have met with, seems to be an anomaly in the annals of midwifery:—

During the month of June, 1851, I was requested to visit Hannah B., a mulatto, who was pregnant with an illegitimate child. Was much surprised at finding my patient herself a mere child in appearance and manner. She was thirteen years of age on the 3rd of the previous February, and, though she had never menstruated, was, when I saw her, in the eighth month of gestation. Her general condition was plethoric; her breasts well developed, and the areola quite dark.

On the 13th of August she was taken in labour, but in consequence of a prolapse of the funis umbilicalis, which could not be replaced, I delivered her of a still-born child, of the usual size, and perfectly formed. The lochia continued for a few days, and she passed through the accustomed period after delivery very favourably.

It is now one year since, and her menses have not yet made their appearance, nor has there been any vicarious discharge, her health during the whole time remaining perfect.

Never having read of a case of the kind, I have sent it to you for publication, should you think it of sufficient interest. —*American Jour. of the Med. Sciences.*

PREGNANCY OF SEVEN TO EIGHT MONTHS.—GENERAL ŒDEMA.—ECLAMPSIA.—PREMATURE ARTIFICIAL DELIVERY.

By Dr. CASIER.

Isabella J., aged 30, for many years subject to chlorosis, became pregnant for the first time shortly after her marriage. In the first months she suffered from a multitude of affections,—neuralgia, sickness, spasms of the neck of the bladder, etc. After two months the general condition improved, but, at the seventh month, the symptoms recurred with greater severity. Soon afterwards, the feet began to swell. The usual treatment was adopted, but without success. Dyspnœa came on; the appetite failed; œdema extended over the body to the face; both the lower extremities and the vulva were distended to a painful degree. On December 9th a.m. the symptoms became yet more pressing. She was at times delirious, and the eyes were wild and fixed; pulse small; body cold.

At this period Dr. Casier, finding his patient in a dangerous state, recommended to her the comforts of religion *(les secours de la religion)*, and left her. While the priest was with her, violent convulsions came on; and the ecclesiastic, believing that the patient was in her last moments, ordered the persons in the room immediately to bring in the first medical practitioner they could find, to perform the Cæsarian operation. This benevolent intention was not effected. M. Thiry happening fortunately to be the practitioner selected, the usual means advisable in such cases were adopted. Thirteen leeches were applied to the temples, and sinapisms to the feet. Dr. Casier, upon his arrival, ordered, in addition, a draught containing musk and sulphate of quinine; a small quantity to be taken every half-hour. The day afterwards, the condition of the patient was such that life could not continue without speedy relief. The muscles were stiff; respiration irregular and stertorous; the uterus not contracted, although pressure seemed to excite in it some movement. A sponge tent was introduced into the os tincæ, and, the day following, a larger sponge was inserted. On the following morning, the doctor was called to his patient suddenly. She had been greatly agitated during the night, and gave indications and signs of intense headache. Her utterance was not intelligible. This gentleman now began to think that he had waited long enough for natural labour. He accordingly ruptured the membranes, found a breech presentation, and withdrew the child, dead, by the feet; the placenta immediately followed the head. The patient slowly recovered, but for some time her reason was shaken, and she had no remembrance of her labour.—*La Presse Médicale de Bruxelles*, Jan. 7, 1853.

We do not extract this case that any of our readers may quote it as a precedent in any single part, save that where M. Thiry saved the woman's life by refusing to perform the Cæsarian section. Dr. Casier, to whom the life of the woman was intrusted, should have delivered her after the occurrence of dangerous symptoms,—even before their arrival, had he been positive of their advent. The husband is not mentioned throughout the case; his wishes, of course, were not consulted.

M. ORFILA.

The Belgian Medical Press contributes its meed of praise to M. Orfila for his liberal gift of 121,000 francs, of which part is to be paid into the coffers of the Medical Association of the Department of the Seine, and the remainder is devoted to the establishment of two biennial prizes for the best essays upon toxicology and medical jurisprudence. The Medical Profession in all countries may well boast of reckoning such a man among its members, distinguished as he is in the field of science as in the path of generosity and honour.

UPON THE EMPLOYMENT OF FOMENTATIONS OF DIGITALIS IN THE TREATMENT OF CERTAIN FORMS OF ASCITES.

By Dr. RAYMOND FALOT.

The internal use of digitalis in powder is not always free from inconvenience; a local action more or less irritant, abundant alvine evacuations, accompanied with colic, can contra-indicate it in the treatment of certain serous effusions, especially in the intermediate form between simple exhalation of serosity and subacute peritoneal inflammation. According to M. Andral, the decoction of digitalis, applied as a fomentation, is a powerful diuretic, which can be substituted for the internal administration whenever the patient is suffering from gastro-intestinal irritation, a common complication with ascites. Bayle, Trousseau, and Pidoux recommend also the topical use of the remedy.

Justine B., aged 18, who had menstruated since 13, and enjoyed good health till 18, when she was attacked with necrosis of a superficial part of the lower jaw, caught cold from being exposed to wet in the country. The day following, she suffered from a severe attack of erysipelas of the face. Subsequently there ensued amenorrhœa, progressive emaciation, swelling of the abdomen, and diminished urinary secretion. The abdomen measured thirty-seven inches round the umbilicus; there was evident fluctuation. Heart's sounds natural. The operation of paracentesis was successfully performed, and she recovered so as to pursue her usual avocations.

She again exposed herself to cold and wet, when a second attack of ascites came on, and the urine was albuminous. Fomentations of digitalis, combined with moderate pressure, removed the effusion into the peritoneum in about one month. She is now recovered, except that she experiences a slight dragging feeling in the abdomen, if she does not incline the trunk forwards in walking. Other cases are recorded, to which the author invites attention.

UPON ARTERIAL BLEEDINGS IN WOUNDS OF THE HEAD.

By M. DELEAU, Jun.

M. Deleau read a paper at the Académie des Sciences, Jan. 24, 1853, entitled, "Upon the Indication of the Quantity of Blood which may be Abstracted by Arterial Bleedings in Wounds of the Head." The object of the author is to prove, that in wounds of the head he has discovered signs indicating the quantity of blood which must be abstracted, so as to prevent all re-action upon the encephalic organs. From four cases, M. Deleau has drawn the conclusion, that all re-action in such wounds is to be suppressed. This is accomplished by taking blood from an artery, and the effects are estimated by the pallid hue of the tongue, of the gums, and of the pharynx. Until these signs are observed, the blood is allowed to flow freely, regardless

of quantity. If inflammatory re-action, which, according to M. Deleau, interferes with prompt cicatrisation, should ensue, a second bleeding will be required. The same principles justify the application of currents of cold water to parts contused by blows, missiles, etc. Dr. Baudens applies ice for several days. This treatment does not hinder cicatrisation, but is apt to rouse into activity chronic affections of the lungs or alimentary canal. Such is not the case in the plan proposed by M. Deleau. To conclude; in wounds of the head, prevent, when in time, the development of traumatic fever, and, for that purpose, be guided by the decoloration of the buccal mucous membranes.—*L'Union Médicale*, Jan. 27, 1853.

COMPOSITION OF THE MILK IN THE FEMALE IN THE STATE OF HEALTH AND DISEASE.

By MM. VERNOIS and BECQUEREL.

M. Payen has presented to the Académie des Sciences, in the names of MM. Vernois and A. Becquerel, an essay upon the composition of the milk of the human female, both in the state of health and of disease, followed by some researches into the composition of the milk of the cow, the ass, the goat, the mare, the sheep, and the bitch.

The authors deal only with the chemical composition of the milk. They observe, that in all published accounts upon the milk of woman, the cow, and the ass, there are remarkable variations in the results; no two accounts correspond. These variations depend upon the mode of analysis.

From numberless observations, MM. Vernois and Becquerel have selected 89 instances to establish the physiological composition of the milk, which is to serve as the point of comparison to all others. They give the composition of the milk, according to the age of the nurse, from 15 to 45 years; according to the age of the milk, from 1 to 15 days, and from 1 month to 24. They pass in review the influences determined by the constitution; by the state of the bosom; by primiparity or multiparity; by menstruation, (its suspension, its return, its special presence;) by alimentation, good or indifferent; by the quantity of milk; by its detention in the mammary glands.

Healthy Milk.—In 1000 *Grs.*

Water	889·08
Solid matter	110·92
Sugar	43·64
Caseine and extractive matter	39·24
Butter	26·66
Salts	1·38
The density is	1032·67

There is more solid matter in the milk of nurses of the age of from 15 to 20 than in those of from 30 to 40.

The colostral condition augments the quantity of butter. The composition of milk in the *feeble* constitution remains nearly normal. In the *strong*, the weight of the solid parts diminishes. The milk of primiparæ approaches nearest the physiological medium. Gestation, towards its close, augments the quantity of solid matter. The presence of the catamenia diminishes its density, the weight of water, and of sugar, but augments the weight of the solid matter, especially of caseine. The milk of women with dark hair has the advantage over that of women with light hair. Indifferent alimentation permits the introduction of too much water into the milk. The elements chiefly affected are butter and caseine. Excess of butter and of caseine always accompanies a bad state of health in the nurse.

The first and second gestations do not in women give rise to the differences remarked in the cow and the goat. As is observed in the cow, there are certain women, in whom, without well-specified causes, caseine or butter is always in excess. The second part of the essay is devoted to the study of the milk in its morbid state. The conclusions are based upon 46 cases, of which 19 were acute and 27 chronic. MM. Vernois and Becquerel have established, that these two classes of affections exert, in regard to the composition of the milk, a remarkable antagonism. In both the acute and chronic, the water diminishes and the solid parts increase; but there the analogy ceases. In the first, the sugar diminishes considerably; the three other elements increase progressively from the salts and butter to the caseine, which alone repairs all the loss experienced by the absence of sugar. In chronic affections the butter and salts increase; the sugar remains stationary; caseine diminishes. Thus, on the one side, (acute affections,) there is loss of a respiratory element and excess of a nutritive element; on the other, loss of a nutritive element, and augmentation of a respiratory element. The composition of the milk has also been investigated in enteritis, pleurisy, moral troubles, curvature, utero-vaginitis, utero-peritonitis, typhoid fever, scrofulous ophthalmia, bronchitis, phthisis pulmonalis, mammary abscess, syphilis.

In pulmonary tuberculosis, without diarrhœa or emaciation, there are scarcely any sensible modifications. But in the opposite case, the weight of the solid parts is considerably diminished, and it is the butter which bears all the loss. In syphilis, the density increases extraordinarily; the butter diminishes, but the salts augment out of all proportion.

There is no regular and constant proportion in the development of the different constituents of the milk, and it is impossible to speak of its richness or goodness with any just or precise idea from the degree of density, nor from the quantity of butter, nor from the proportion of any other single element regarded by itself; the analysis must, in every case, be complete, inasmuch as each element seems to have its own existence, which modifies, by turn, peculiar and special influences.—*Op. cit.*

PROVINCIAL CORRESPONDENCE.

SCOTLAND.

MEDICAL DOINGS IN THE NORTH.

Edinburgh, March 4, 1853.

If you have any revengeful feeling for the repeated attacks which have been made by the intolerant *Edinburgh Monthly* on the London "weeklies," it would have been amply appeased by the recent displays made by "all the talents" whose names figure as conductors of that serial; nor, if report says true, are they much happier in the retirement of domestic life. The keeper has some trouble, it is alleged, with his "happy family," and some of the white slaves do not bear their serfdom with the meekness of "Uncle Tom." The rule is too intolerant and too despotic. The abandonment of the *colloquia* is significant. Some friends agree best at a distance, and with them *colloquia* are not the thing.

I promised to return to the Medico-Chirurgical Society. It met on February 16, when Mr. Struthers, of the Edinburgh Extra-Academical School, read a paper on "Local Bloodletting." The object of the paper was to show that, from the distribution of the veins, the cranium is the only one of the great cavities of the body which can be really emptied of blood by local bloodletting, and that this remedy, when applied in other situations, can only act by withdrawing blood from the general circulation.

The paper was an ingenious one, and offered many points for good discussion. Of all the melancholy displays which we ever witnessed, the conversation which followed was about the most conspicuous. It was led off by Professor Bennet, who, not content with filling half of each *Monthly* with puerilities in the shape of clinical lectures, fit only for the merest tyro, seems to require other channels for the relief of his singular fecundity, and is at all times ready for a discussion on any subject. He proclaimed the somewhat novel doctrine, founded on the experience of an "auld wife,"—his nurse in the hospital,—that the beneficial effects which often follow the application of leeches were due, not to the bloodletting, but to the hot fomentations with which it is usually followed, and thus created a very animated discussion on the classical subject of poultices.

The sublime theme thus started proved but too attractive to the Scotch taste for porridge; and Professors Syme and Millar, of the University; and Dr. Alexander Wood, of the Extra-Academical School, seemed to vie with each other in the puerilities which they uttered.

Oh, had Robert Knox, our old preceptor, now fallen, alas! from his high estate, but been present! I think I see the merry twinkle of the monoculous monster. The calm, gentle, half-patronising kindness with which these worthy professors and lecturers would have been treated as he commenced, and then the withering sarcasm with which he would have crushed them, and that, too, in the presence of their own students!

The Society met again on the 2nd of March, when the benches were filled to hear a paper by Professor Syme, "On the Improvements effected in Surgery during the last Thirty Years."

The proceedings commenced by Dr. Husband—a very small man—reading a very large paper on a most minute subject. This truly worthy little gentleman has revived the old plan of keeping

vaccine virus in capillary tubes hermetically sealed. All he could say on this subject he had already told the Society. The paper he read had been previously submitted to the Society of Arts, and truly every member felt, (as I overheard a witty member remark,) while he was discussing the *calibre* of his tubes, that he himself was a great *bore*.

This opinion was expressed pretty audibly during the reading of the paper, but the author was as impervious as if he had been hermetically sealed, and played on his new Pan's-pipes as composedly as if he had been the father of Tube-all Cain himself.

A very interesting paper was then read by Mr. Syme, when Professor Millar rose, and pointed out, that, with two exceptions, all that Mr. Syme admitted as improvements were his (Mr. Syme's) own suggestions, and were just a repetition of what had been already furnished by him to his biographer in the *Lancet*. As the discussion broke off at this point, to be resumed at next meeting, I must leave it till then.

The very sudden and lamented death of Dr. Alexander Campbell, Lecturer on Midwifery at the Extra Academical School, and co-editor with his father, of "Campbell's Principles of Midwifery," which took place on November last, has created a vacancy in that department. Two gentlemen have come forward to fill it: Dr. Alexander Keiller, at present Lecturer on Medical Jurisprudence, one of the physicians to the Royal Infirmary and to the Maternity Hospital, and author of several contributions to the journals, and Dr. James Matthews Duncan, lately House-Surgeon to the Maternity Hospital.

The vacancy in the Jurisprudence department, caused by Dr. Keiller's translation, is, it is understood, to be filled by Dr. Daniel Haldane, who graduated in 1848, and who was greatly distinguished in the University Prize Lists as a student.

Your readers, who studied in Edinburgh from twenty to thirty years ago, will remember, in one of the narrow streets to the back of the Infirmary, famous for students' lodgings, a dark, semi-circular-fronted building, labelled "Royal Physical Society."—A strange and chequered existence the said Royal Physical had; at last it degenerated, despite its Royal charter, to a stage when membership implied anything but respectability. It is even alleged that the British Association, who, previously to their first visit to Edinburgh, admitted all to membership without ballot who were fellows of chartered scientific societies, limited it, on that occasion, to societies publishing transactions, shocked by the application of a savant claiming admission as a Fellow of the Royal *Fizzical* Society! Be that as it may, its days of degeneracy are over. It has sold its old quiet retreat, and now meets, with great vigour, in a room in the new town, and is presided over by Mr. Hugh Miller, as well known in the scientific world as the author of the "Old Red Sandstone," and "Footprints of the Creator," as he is in the political and religious world as the Editor of the *Witness* newspaper.

Apropos of such changes, students of a much later date will remember the quiet purliens of Surgeon-square; the plain and ugly Surgeons'-hall; the pillared lecture room of John Barclay, long occupied by Knox; and the place where the bodies of the victims of Burke's atrocities were conveyed; and the quaint hall of the Royal Medical Society, with its little dome and turret, the scene of many a youthful contest, and many a victory dearer to the successful combatant than any he has since achieved. All these haunts, peopled with so many associations, are in course of being destroyed. The Managers of the Infirmary have purchased the whole square, and their rapidly extending buildings bid fair to obliterate all traces of their former occupants.

The Royal Medical has purchased a splendid property in Melbourne-place, more suitable in every way for its use, and is in a state of high prosperity.

Much attention has of late been created in Edinburgh by the great mortality which takes place among masons from pulmonary phthisis. The startling fact was announced first, I believe, in the pages of the *Builder*, from which it found its way into various newspapers, that nearly one half of the whole number of masons employed on the Scott monument, which has been only a few years completed, were already dead of phthisis. An impression prevails among the masons themselves, that the practice pursued in Edinburgh of working in covered sheds is more liable to produce the disease than where the trade is pursued in the open air. Dr. Alison has advised the masons to allow their moustaches to grow; but I believe such of them as have followed this advice have found that it only serves to collect the gritty particles in great number on the hair, and that from thence they are drawn into the lungs through the nostrils.

One of our benevolent city clergymen, the Rev. Mr. Smith, has had his attention turned to the subject, from the number of masons sitting in his church, and has invented a small respirator to prevent the gritty particles of the stone from passing into the lungs. It is oro-nasal. The basis consists of horn fitting over the mouth and nostrils, and perforated with small holes for the passage of air; this, again, is covered with crape or gauze, and it is retained in its situation by an elastic band passing round the head. The whole can be obtained for 1s. 9d. The apparatus seems exceedingly suitable for the purpose for which it is intended, but, as Professor Millar remarked, when Mr. Smith showed it in the Medico-Chirurgical Society, the difficulty is to get men to use it. The Davy-lamp is a specific against the explosion of fire-damp, and yet the men will not employ it. Among the surgical notabilia of the last few weeks has been the excision of the knee-joint by Dr. Mackenzie, a very rising young surgeon, who has already excited a good deal of that surgical jealousy to which I alluded in my last.

The operation has been performed despite the protest of the "Clinical Professer," who took the somewhat unusual course of lecturing on the subject, and warning the students against its performance. Hitherto, however, the patient has progressed favourably, but the result remains to be seen.

GENERAL CORRESPONDENCE.

THE PREVENTION OF CHOLERA.

[To the Editor of the Medical Times and Gazette.]

SIR,—The cholera has visited Paris, and, as every medical man has anticipated for many months, it will, in all probability, be for the third time working havoc in the epidemic districts of London, and the fever haunts of all our cities, towns, and villages, before the leaves are out upon the oak.

Those who have read, as you doubtless have, Dr. Sutherland's excellent reports on the deadly districts of the metropolis, and those of the Superintendent Registrar's of the Board of Health, know, that notwithstanding the warning of two pestilences and twenty years' agitation of the subject, England is very little better prepared to meet the cholera of 1853 than it was to meet those of '32 and '48. There is, however, this great difference between the responsibility of the nation, and, above all, that of the medical men of the nation, now and on the two previous occasions, that whereas we at first were sinning in ignorance, we are now sinning against a knowledge as clear as the experience on which it is founded is terrible.

Nothing is more clear to all the medical men, and to most other enlightened persons in the nation, than that the only preventive, if not the only cure, of cholera, is cleanliness taken in its widest sense; and that the filth and foul air which feed cholera afford sustenance to all other epidemic diseases.

Those who have examined the subject may differ as to the amount of preventible disease existing in this country, but it seems the almost universal opinion of writers on the subject of public health, that from one-third to one-half of all the death and sickness, and with these, more than half of all the misery, pauperism, ignorance, sorrow, and crime might, by sound sanitary measures, be swept away from society.

This is not the place to go into a proof of this statement, neither, in addressing medical men, is it necessary. The simple facts, that less than ten individuals in the thousand among the Society of Friends die annually, and that there are large healthy districts in England wherein the annual mortality is only eleven in the thousand, while that of the nation at large is above twenty, and that of the dirty and close streets and courts of towns—the epidemic districts of life—is often forty or upwards in the thousand; these simple and indisputable facts are quite sufficient for medical men. Neither is there among us much more doubt as to the best mode of remedying the evil than there is as to its magnitude. Of the two Acts which were passed in 1848, the "Nuisance Removal and Diseases Prevention Act" and the "Public Health Act," the experience of the last four years has proved that the first is as incapable of working any permanent good, as it is unfitted for grappling with the inherent vices of our present systems of ventilation, drainage, and house-building; that it is itself, in fact, the greatest nuisance in the way of public health, while the "Public Health Act," judging both from the effectual nature of its provisions, and from the experience of upwards of one hundred towns, to which during the last four years it has been applied, seems well adapted to effect the thorough and permanent reform of which we stand in need. The power, indeed, has not yet been granted to the guardians of the public health which is given to every preserver of game, of readily enforcing the powers and

penalties of the Health Act; but this (if not before) will probably come in the wake of the coming cholera, and then this truest and wisest enactment ever given by a Parliament to a people will be complete.

I believe, then, Sir, that the Medical Profession, as a body, and most of the enlightened persons in the country, (embracing especially the large majority of clergymen,) are satisfied that there exists an enormous amount of death, sickness, ignorance, misery, and crime in this country which sanitary measures would remove, and that the Public Health Act affords the best means yet devised of removing these evils. I believe that those who have studied the subject are convinced, and can prove, that the application of sanitary measures to towns results in a saving of money as well as of life, to the inhabitants, and that it is never a wise, nor even a prudent, but always merely a sordid and ignorant avarice, which opposes the boon. I believe that the apostles of religious and political freedom, of temperance, education, the Gospel of Christ,—of all schemes for the progress and enlightenment of man,—are thoroughly convinced that this question of public health lies at the root of all their plans; that the present condition of the dwellings of the working classes tends to bar all progress and quench all light; and that, were plenty of pure water and fresh air carried into all their houses, and all the refuse removed, (the whole of which may be done for every working man's tenement and cottage, under the Health Act, at an average expense of twopence a week,) an impulse would be afforded to every benevolent scheme of unspeakable value and power.

Believing these to be the convictions of my professional brethren, and of a large majority of enlightened persons of all classes, the question arises painfully, "How is it that we have not done more to help forward this grand social reform; that we have left a few men, with one or two of the most distinguished members of our Profession at their head, to force forward, under all the disadvantages of official position, the health of the people; and that we have not organised ourselves, and associated the friends of health reform, and agitated the whole country in such a manner as would have resulted in carrying a wholesome measure of cleanliness and health at once for the whole nation?" Without some such national demonstration as medical men could best produce, it is very clear that a full measure of health reform will not come in our time; with such encouragement and support, the Government and the Board of Health would be able to carry it within two or three years,—possibly at once, by a benevolent *coup d'état*.

I believe the topic of public health is now ripe, and ready to be taken up in the manner I propose. If medical men, as a body, will—as they understand the subject best, and therefore have the heaviest responsibility to do justice before God and their fellowmen in the matter—make the attempt to form a national society for the purpose of carrying health measures for the people, I believe they will succeed. Friends will start up on all sides, both in those towns (and there are but 130 of them) in which the battle for health has been fought and won, and in those (a much larger number) in which the warfare is waging, or in which there are friends of humanity longing to enter into it.

Not only does the duty of doing this work belong to medical men, but the greatest power to effect it belongs to them also. Out of their own body an association might be formed which probably might carry the Health Act into all districts in which the mortality was above twenty in the thousand; but, as they know in all towns the unprofessional friends of public health, they possess the best means of organising the largest forces.

The working classes, who form the majority of the ratepayers, and therefore could of themselves demand the Act, and who will derive the chief benefit from it, should, wherever possible, be associated with the effort. With head quarters in London, such a society would speedily possess multitudinous allies in the provinces, who would form a *cordon sanitaire* round the whole island. A subscription, from the working man's sixpence to the medical man's guinea and the noble's hundred guineas (if he pleased), might be proposed, and would surely be obtained.

The object of such a society would, as it seems to me, be threefold:—1st. To enlighten the people by means of practical tracts and lectures and a journal of public health. 2ndly. To convict by coroner's jury those who are guilty of killing their tenants or neighbours by cesspool and sewer air, and then to enforce by law the liability of the landlord (as of the Railway Company) to pay a penalty to the survivors; and 3rdly. To petition Parliament to apply the Health Act to every union in the empire, and to give powers (in the case of killing men as well as pheasants) for enforcing the just penalty.

Most of the hospitals in this country have been originated by medical men; and, whether it be admitted or not, there certainly is no class of men who make so many personal sacrifices for the sake of humanity as they do.

Let us, as a Profession, humbly thank God for this worthy character, bequeathed to us by our predecessors, and resolve to preserve and, if possible, enhance it.

It seems to me that there is now an opportunity, in doing the plain duty that lies before us on this subject of public health, to do lasting honour to the profession of medicine.

It is very certain, that, were sound sanitary measures established, there would not be room for above half the medical men at present in practice. "Preventive medicine" is a science of which the elements are soon learned and easily applied. The intelligent working man may speedily be on a level with the physician in respect to these.

Therefore, in advocating public health measures, the Medical Professon is plainly sacrificing its fees and its *esprit de corps* to duty and humanity.

With perfect confidence I appeal to the noble members of the Medical Profession to make this sacrifice, certain that the very consciousness of the sacrifice will stimulate their efforts in the cause. I am, &c. D. L.

Derwent Bank, Keswick.

SKODA'S THEORY OF BRONCHOPHONY.

[To the Editor of the Medical Times and Gazette.]

SIR,—You some time since inserted in your Journal a note from me, in which I endeavoured to show that Dr. Walshe, in his "Treatise on Diseases of the Lungs," etc., had not correctly interpreted Skoda's theory of the bronchophonic voice. Perhaps you will permit me now to show that, in several other particulars, Dr. Walshe has not been more fortunate in his treatment of that author.

Whoever has read Dr. Walshe's excellent treatise (and I should suppose that none of his countrymen interested in auscultation have failed to do so) must be aware that the name of Skoda is not unfrequently alluded to in it, and that it is almost invariably quoted in connexion with some doctrine or some opinion criticised or repudiated; so that the reader rising from a perusal of Dr. Walshe's pages can hardly be otherwise (if he know nothing of Skoda's doings and sayings beyond what he has gathered of them therein) than imbued with the idea that the German author deals in heterodoxies, as wild and offensive to the faithful followers of Laennec as those of Strauss or Fichte are to the orthodox in another sense.

You will perhaps think with me, that it is only just that the wrong impression, thus widely spread, of Skoda should be done away, and I am sure that Dr. Walshe will himself be the first to correct any erroneous exposition which he may have accidentally given of that author's views; and this in particular, because in his preface he tells his readers, that he has weighed some of the modern German theories, and found them wanting in the critical balance; and because his treatise bears intrinsic evidence that Dr. Walshe has carefully perused Skoda's work.

I do not think it necessary to state again the objections which I hold to Dr. Walshe's explanation of Skoda's theory of bronchophony; but I will briefly mention the other passages in his treatise to which I allude.

At page 139, Dr. Walshe, after giving an account of the *probable* causes by which Skoda suggests that ægophony may be produced, observes: "Dr. Skoda's idea of quivering mucus is likewise inadmissible; if correct, ægophony should be almost constant in a disease in which no one has ever heard it, bronchitis; it should not exist in pleurisy with effusion, when there is no expectoration," etc. Now, Skoda states distinctly that ægophony, in whatever way it arises, can only occur when the voice consonates in some air-containing space, *i.e.*, when a portion of lung is compressed by fluid or hepatized; but in bronchitis, as every one knows, the conditions requisite for consonance of the voice do not exist, and therefore ægophony (in Skoda's sense) cannot occur; and thus he is made, by inference, to assert a positive contradiction. Again: to say that "ægophony should not exist in pleurisy with effusion, when there is no expectoration," is simply to deny Skoda's proposition, but no argument against it. Skoda says, "it is probable that in most cases the walls of the bronchial tube within which the air consonates, re-act by impact on the air contained within them, and so give rise to the tremulous sound." What is there about expectoration or the intervention of bronchial mucus here? Dr. Walshe seems to have confounded with this hypothesis of Skoda another by which he suggests ægophony may possibly be produced; "it is possible," he says, "that it may be occasionally produced by a portion of mucus, etc., partially closing the mouth of a bronchial tube."

In a note, Dr. Walshe writes: "It seems not altogether philosophical to deny, with Skoda, the reality of ægophony as a special

kind of resonance." As far as I understand Skoda, he does nothing of the kind. What he means to say, if I read him aright, is this:—You have established the sign ægophony as being the indicator of special conditions of the thoracic organs. I deny that it is such, and therefore I reject it. Its retention can only mislead observers.

At page 224, writing of tricuspid regurgitant murmur, Dr. Walshe says: "But, as will be hereafter shown, the conclusion of M. Skoda, that wherever such pulsation" (of the jugular veins) "is absent, the murmur under consideration may be pronounced not to depend on regurgitation, is at variance with facts." How is this statement of Dr. Walshe to be reconciled with the following of Skoda?—"When the murmur exists, and the cervical veins are distended, but do not pulsate, the tricuspid valves may be defective; but, in such case, either the heart's action is feeble, or the deficiency of the valves is very slight," etc.

In page 226, I find Dr. Walshe accuses Skoda of making a hazardous assertion,—one, indeed, which has all the "aspect of an *a priori* one,"—rather hard words these. "Skoda affirms that murmurs of the two sources"—viz., diastolic murmurs caused by obstructive narrowing of the mitral orifice, or by simple roughness of the auricular surface of the mitral valves—"may be distinguished by the state of the second sound in the pulmonary artery." I think the following remark of Skoda will clearly show that he makes no such assertion; what he really does say is this: "Constriction of the mitral orifice causes.....an increased second sound of the pulmonary artery much more readily than mere deficiency of the mitral valves. The increased second sound is not observed when roughnesses alone exist on the auricular surface of the valves, without constriction of the opening." How can Skoda mean this increased second sound of the pulmonary artery to be a differential sign in the case referred to by Dr. Walsbe, when he tells us that it is caused as well by mitral regurgitation and by other morbid conditions of the heart?

In his chapter on Venous Murmurs, p. 252, Dr. Walshe writes: "It is averred by Skoda, that hydræmic blood has been drawn from persons perfectly free from venous murmur. It was probably not carefully sought for." Whence Dr. Walshe could have derived this statement I know not; all I can say is, that not one word about drawing of blood occurs in Skoda's account of murmurs in the jugular veins. I find, however, that, under the head of "Murmurs of the Heart," he says: "It is not true, that a watery state of the blood is a cause of murmurs of the heart. I have many times abstracted very watery blood from patients in whom no murmurs existed. It is true that murmurs do occasionally arise in the heart," etc. Others must judge whether Dr. Walshe could have confounded these *dissimilia*. I can only add, that, as far as I can recollect, this is the only passage in Skoda's work which could have misled Dr. Walshe.

With one or two trifling exceptions, I believe the above are the different occasions on which Skoda is referred to by Dr. Walshe; and I must leave your readers to decide whether or not I am correct in saying, that Dr. Walshe has neither been fortunate nor just in his criticisms of the opinions of that author.

Clarges-street. I am, &c. W. O. Markham.

MR. TOYNBEE ON DEAFNESS.

[To the Editor of the Medical Times and Gazette.]

Sir,—Mr. Toynbee is deservedly considered to be a high authority for everything relating to the anatomy and physiology of the ear; I have, therefore, been much interested in his paper, read before the Royal Society, and wish that it had been fully reported. Few of us have opportunities for verifying such statements; but I trust that those who have will make further inquiries, as the occlusion of the guttural orifice of the Eustachian tube, excepting under muscular action during deglutition, is a startling announcement, when viewed in connexion with that form of deafness which arises from obstructions of that canal, and which is relieved by mechanical appliances, independently of medical or of local treatment. A figure, also, of Mr. Toynbee's artificial membrana tympani would be useful to your readers. It appears to be a modification of the plan recommended by Mr. Yearsley, of introducing moistened cotton up to the perforated drum. The latter gentleman, it appears, took the hint from an American, who was in the habit of introducing a paper spill himself. Where he got it, it is impossible to say; but Mr. Todd, whose Anatomy of the Ear, published in 1832, is about the best we have, has the following passage; and I feel surprised that it should have been lost sight of by those who are constantly puffing their works into notice. Mr. Todd writes, page 105, "From all that has been hitherto stated, it does not, however, appear, that we know of any agent, or class of agents, which have the power of exciting the principles of life to develope those textures whose absence is the cause of congenital deafness. . . . . Nevertheless, we have reason to think, from the spontaneous cures recorded to have taken place at particular stages of life, that the vital principle in those parts is susceptible of peculiar excitement, and that, if it does not generate structures hitherto defective, it can, at least, produce such a revolution in the textures that exist, as to make them subservient to the original intentions of their formation. Ought we not, then, to endeavour, by every means in our power, to solicit such fortunate issues? And, supposing all the means which we have ventured to notice fail in producing the evolutions which we so much desire, are we altogether without resources, or have we not still other means, by the employment of which the severity of deafness may at least be alleviated? When we reflect on the economy of the eye, and on the benefits derived from the mere use of glasses, does it not appear possible that dulness of hearing, and some cases of deafness, may be relieved by the employment of an acoustic apparatus? When we refer to the various cases which have been recorded of extensive injuries having been done to the apparatus tympani without producing much deafness, does it not appear that, so long as the tympanum possesses a texture in communication with the labyrinth, and that texture has the principles of sensitive motion, it must have the power of communicating effects capable of exciting a sensation? That such a sensation can be perfect, no one will for a moment suppose; but, limited or imperfect as it may be, it clearly demonstrates that the peculiar phenomena of hearing can be excited without the presence of an apparatus complete in all its parts, and that the acuteness of the sense may probably be increased by certain remedies of a mechanical nature. In this idea we are confirmed, when we consider the relief derived from the mere introduction of a little lint into the meatus externus, in those cases where the membrana tympani has been ruptured or destroyed by the violence of disease. So great, indeed, is the improvement which takes place from the application of this simple remedy, that patients will frequently appear astonished on being so easily relieved."

The last part of the quotation is prophetic of what has since been done by others, and the suggestion in the first sentence here quoted has been acted on with a degree of success by Mr. E. Smith, of Billiter-square, which should encourage us to persevere in our efforts. For his interesting case, I must refer your readers to Dr. Bennet's translation of Kramer, page 183, in which it will be seen that a large portion of the membrana tympani that had been destroyed by ulceration, was restored by treatment with mercury.

I am, &c.

Jas. Morss Churchill.

MEDICAL ASSISTANTS.

[To the Editor of the Medical Times and Gazette.]

Sir,—I am desirous of writing to you upon the subject of "Unqualified Young Medical Assistants," because I think that it is one upon which much vexation has been caused to many; and what I am going to say, I trust may, in some measure, put away many evils. Assistants generally consider themselves a hard-worked, ill-paid, and ill-treated class of young men. And why is this? The fault is on both sides. A young medical assistant just emerges from his apprenticeship, and, for various reasons, cannot go to his home, and therefore is anxious to obtain a situation without any delay. One presents itself; he accepts it at a low salary for two reasons: first, because he is anxious to obtain it, and fears, that if he ask a high one, he shall lose it; and, secondly, because he underrates his abilities, and so is afraid that he will disappoint his employer, who, from a high salary, will expect high abilities. He obtains, and proceeds to, his situation, and, being anxious to please, he makes himself generally useful, and finds out, ere long, that what he at first did out of courtesy he is now expected to do. Various things he is asked, in rather a decided tone, to do, and he is afraid to refuse, and, in short, soon finds out, that the "more he does, the more he is expected to do," and then, for the first time, considers that he is hard-worked, ill-treated, and ill paid. This is one side of the case; let us look at the other. A medical man is in want of an assistant; he advertises in the usual way, and of course accepts the one who requires the lowest salary, provided his character is good, etc. The assistant arrives, and is allowed to go out to get "accustomed to the place," etc.; but in a short time this is stopped. He perhaps finds that he is a good-natured, agreeable fellow, and, if he is not a very conscientious man, he proceeds to make use of him, and expect him to do various menial services, which he does, because he is desirous to stop, and so one thing leads on to another;

and I know a medical man ask his assistant, "Why he did not groom the horse when he (the assistant) brought it in?" The servants now begin to think him one of themselves; hearing their master dispute with him, it brings him down in their estimation, and they conclude that as he is paid for his services, he is hired like them, and therefore to be treated so. In this way things go on, and each think each other changed. But how is this to be avoided? Easily enough. In the first place, let the assistant, when he is corresponding, make it plainly understood, that he expects to be treated in every way as a gentleman; let him state that he will come at a moderate salary, provided, that, if he suits, at the end of a definite period it is to be raised; and, finally, let him agree that he shall have, whenever convenient, a short time for air exercise, as nothing tends to make a young man so unfit for duties as constantly to be kept in. Let him proceed to his situation, be respectful to the patients, keep from all unnecessary intercourse with the servants, and, in every respect, keep his station as a gentleman. On the other hand, let the employer take great care whom he is admitting into his house and family, treating him as one of themselves, and not grudging him occasional time for himself, nor mind putting himself to a little inconvenience sometimes. Medical men are often apt to look upon their assistants as menials, forgetting that they are gentlemen like themselves, fitting for the most noble of all professions. There are often annoyances on both sides; but this would be avoided, if there was perfect freedom established between "master and man." Let him tell him of his faults, *i. e.*, what he dislikes, and happy is that assistant who takes it in a right spirit, correcting what is wrong, and striving to do his duty in that station of life to which he has been called. I should not have troubled you thus much, were I not anxious, if possible, to render the too often despised assistant a little aid; and I trust that this will, in some way, help to remove those evils to which they are exposed. I am, &c.

Nottingham. A. W.

THE NAVAL ASSISTANT-SURGEONS.

[To the Editor of the Medical Times and Gazette.]

Sir,—By the last week's *Medical Times and Gazette*, it appears that Sir Wm. Burnet has not two eligible candidates on his list for "assistant naval surgeons." I am informed, on undoubted authority, that Sir William, to whom the task of examining surgeons for the Oriental and Peninsular Company's Service is also consigned, has been heard to remark, that the candidates for this are, in every respect, a superior class of men to that for the naval service. The anxiety to enter this department of our mercantile marine is so great, that when a vacancy occurs there are a host of applicants eager to fill it. Have our young men lost their emulation, or do they lack the spirit to enter their country's service? Neither of these, to their credit be it spoken. Then, why is this? By the judicious arrangements of the Oriental Company, they are treated as men of education, and as gentlemen, and esteemed accordingly. Our merchants think, and with much reason too, that the health of their passengers and of their ship's crews are matters of paramount importance, and that to secure the services of the best qualified is the better economy; not so, with certain honourable exceptions, do our Government. They seem to imagine, after a man has spent a costly sum in educating and perfecting himself for the ordeal of examination of a high standard, as to his general and professional acquirements, which places him, as regards these, on a par, if not above, any officer in the ship, from the captain downwards, that immediately on entering the service he is to be placed on a level with the merest tyro who has every thing to learn; but, like his superior and commanding officer, he has learned his profession, and only needs that experience which time and opportunity afford to all alike, whatever their occupation; and, therefore it is he naturally expects to occupy a position amongst his fellow officers adequate to his acquirements and the duties of his station.

If, then, Her Gracious Majesty desire—and I cannot doubt that she does—to have efficient medical officers in her navy, the auspices under which they are to enter it must wear a brighter aspect than they do at present, or her Government must consent to see medical men joining the mercantile marine, or any other service, rather than that to which they ought, as men and patriots, to aspire. I am afraid I have trespassed too long on your valuable space, but the preceding remarks have been called forth by the startling announcement that there were only two eligible candidates for "assistant-surgeons" to Her Majesty's Navy.—I am, &c.

One who Loves his Country and his Profession.

REPORTS OF SOCIETIES.

MEDICAL SOCIETY OF LONDON.

ANNIVERSARY MEETING.

The eightieth anniversary meeting of the Medical Society of London was held on Tuesday last, March 8th, at the Thatched House Tavern, St. James's-street, Mr. Bishop, President, in the chair. The Presidents of the Colleges of Physicians and Surgeons, and the Master of the Society of Apothecaries, were present as guests of the Society. The result of the election of office-bearers for the ensuing year was announced. The following are the officers appointed:—

President: Forbes Winslow, M.D. *Vice-Presidents*: E. Canton; S. Stedman; Tyler Smith, M.D.; John Snow, M.D. *Treasurer*: Henry Hancock. *Secretaries in Ordinary*: C. Cogswell, M.D.; Edward Smith, M.D. *Secretary for Foreign Correspondence*: T. Davidson, M.D. *Councillors*: R. Barnes, M.D.; J. Bishop, F.R.S.; J. Chippendale; W. D. Chowne, M.D.; J. F. Clarke; J. B. Daniell, M.D.; Victor de Meric, M.D.; W. C. Dendy; R. Druitt, M.D.; A. H. Hassall, M.D.; S. W. J. Merriman, M.D.; John Propert; B. W. Richardson; C. H. Rogers Harrison; C. H. F. Routh, M.D.; W. B. Ryan, M.D.; R. H. Semple, M.D.; W. Smiles, M.D.; J. S. Stocker, M.B.; E. J. Tilt, M.D. *Orator for the Year* 1854: W. F. Barlow.

The oration was delivered by Dr. Snow. The chief subject of it was communicable or contagious diseases. Each case of these diseases was, he said, as a general rule, caused by some material which had been produced in the system of a previous patient, and which possessed the property of increasing and multiplying its own kind at the expense of the individuals attacked. The character which most communicable diseases had of prevailing as epidemics was directly due, in his opinion, to their communication from person to person. The effects of the atmosphere, of climate, and of locality on epidemic diseases had generally been much over-estimated. They only promoted or repressed epidemics as they did the production of plants or insects, and were not their real cause. He expressed a doubt of the existence of malaria or marsh miasmata as a cause of ague; and quoted several instances in which intermittent fevers were caused by drinking ditch or marsh water, while other persons subjected to the same atmospheric influences escaped. We had, he said, no sufficient evidence to show whether the material cause of ague was produced in the system of a previous patient or not. The communication of tape-worm had never been observed, although we knew that it was caused by unwittingly swallowing the eggs which had been produced in the alimentary canal of another individual; consequently, intermittent fevers might be communicable, although this character had not been observed in them. Want of personal cleanliness aided very much the propagation of many epidemic diseases; and this favoured the view of their communication by accidentally swallowing the specific virus, rather than by inhaling it in the form of effluvia. There was some evidence to render it probable that plague, yellow fever, and typhoid fever, as well as cholera, were occasionally communicated by the materies morbi being conveyed to a distance in the drinking water, or other articles of diet. The speaker expressed his opinion, that the class of communicable diseases required further investigation, and he concluded with an allusion to Jenner, who was an early member of the Society.

The Fothergillian Gold Medal was awarded to Mr. Poland, for the best essay on "Diseases of the Abdomen," and a Silver Medal to Mr. Clifton, for his services whilst Treasurer.

After these proceedings, a very numerous party of the members sat down to dinner. The chair was taken by the President of the Society, supported by the President of the Royal College of Physicans, the President of the Royal College of Surgeons, the Master of the Society of the Apothecaries, and the past Presidents of the Medical Society. The usual loyal toasts were given from the chair, and the amusement of the company present was much enhanced by some very excellent singing. The principal subjects

of the Professional toasts were "The Medical Society of London," The three London Medical Corporations, "The President of the Medical Society," "The Past President," "The President Elect," "The Treasurer," and "The Secretaries," all of which were responded to in an able and efficient manner. The conviviality of the evening were prolonged to a rather late hour, and the party separated highly satisfied with this annual banquet—the "feast of reason and the flow of soul."

MEDICAL NEWS.

THE LEVEE.—On Wednesday last the following members of the Profession were present at the levee:—Drs. Locock, Billing, Ferguson, Spurgin, James Harrison, Ruttledge, and John Forbes.

ROYAL COLLEGE OF SURGEONS.—The following members of the College were admitted licentiates in midwifery at the meeting of the Board on the 9th instant:—

CHAPMAN, EDMUND, Balham; diploma of membership dated June 27, 1851.
CLARKE, THOMAS F., Gerrard-street, Soho; Feb. 18, 1853.
FINNIMORE, T. A., Lymington, Hants; July 16, 1849.
GURNEY, RICHARD A. F., Norwich; May 8, 1839.
HILLIER, JAMES THOMAS, Ramsgate; June 21, 1850.
JESSOP, CHARLES MOORE, Bilton, Yorkshire; Feb. 18, 1853.
NICHOL, R., Champion-hill, Camberwell; July 27, 1846.
SYRETTON, WILLIAM HARRIS, Leicester; May 23, 1851.

APOTHECARIES' HALL.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, 3rd March, 1853:—

DALTON, FREDERICK.
NICHOLAS, GEORGE EDWARD, Royal Navy.
SUTTON, FIELD FLOWERS, Barton, Lincolnshire.
WILDE, JOHN, Islington.

APPOINTMENTS.

NAVAL.—Surgeon-Superintendent Harvey Morris (1838), to the Robert Small, hired convict-ship for the conveyance of convicts to Western Australia.

MILITARY.—Coldstream Regiment of Foot Guards.—Battalion Surgeon James Monro, M.D., to be Surgeon-Major, vice Robinson, deceased; Assistant-Surgeon Joseph Skelton, M.D., to be Battalion-Surgeon, vice Monro. 14th Foot.—William Renwick, gent., to be Assistant-Surgeon, vice Carte, promoted in the 67th Foot.

DEATH.

MANSON.—March 4, at Park-street, Grosvenor-square, aged 32, from a poisoned wound, incurred in the exercise of his duty as Physician-Accoucheur to the Royal Pimlico Dispensary, Fredericke Robert Manson, M.D. Lond. 1844; M.B. 1843; M.R.C.S. Eng. 1843; L.R.C.P. 1847; Senior Physician to the Northern Dispensary; late Lecturer on Medical Jurisprudence and co-Lecturer on Midwifery and Diseases of Children at the Hunterian School of Medicine; formerly Senior Physician to Farringdon Dispensary; Fellow of the Statistical Society; Fellow of the Medical Society of London; Corresponding Member of the Chirurgical Academy of Madrid.

DEATH OF DR. OVERWEG.—Through intelligence received at the Foreign Office from Tripoli, and communicated to us by the Chevalier Bunsen, it is our melancholy duty to announce the sudden death of Dr. Overweg, one of the travellers employed in determining the boundaries of Lake Tsad. Dr. Vogel, a gentleman well known for his astronomical labours in connexion with Mr. Bishop's observatory in Regent's-park, volunteered to join them, and on Sunday last he left Southampton with two sappers and miners, and a supply of the best instruments for magnetic observations, uninformed of the event which we have this day to record. Thus at the early age of thirty, sharing the fate of Dr. Richardson, fell another hearty traveller of vigorous enterprise, a victim in this particular service of African exploration.—*Literary Gazette.*

UNIVERSITY OF LONDON.—FRANCHISE MOVEMENT.—Thirty-five Petitions have already been presented to the House of Commons, begging the bestowal of the franchise on the University. Ultimate success is certain; at the same time, continued efforts are required to hasten the progress of the movement. Those interested in the matter—and who in the Medical Profession is not?—should seize the earliest opportunity of affixing their names to the Petitions which lie at the various affiliated colleges for signature.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST.—The Fifth Anniversary Festival of this Institution was held on Wednesday last at the London Tavern, the Right Honourable Lord Stanley, M.P., in the chair. Upwards of 300 gentlemen sat down to dinner, and the gallery was crowded with ladies. A powerful appeal was made by the Chairman, in the course of the evening in favour of the objects of the charity, and his eloquence was so successful that more than 6,000*l.* was subscribed by the company present.

CITY COMMISSIONERS OF SEWERS.—On Tuesday the Commissioners assembled in the Guildhall, Mr. Deputy Peacock in the chair. The Court proceeded to consider the claim of the Medical Officer of Health of the City of London to an increase of salary, on account of his valuable services. After some discussion the salary was raised from 500*l.* to 800*l.* a-year. We are glad to observe that the City authorities are evincing a just appreciation of the very arduous duties of this office.

THE WEST INDIES.—By the last advices we learn, that, during the time the Thames has been on her outward and homeward passages, and her stay in the West Indies, there have occurred on board, among crew and passengers, from intermittent fever, 36 cases; remittent fever, 102 cases; yellow fever, 25 cases; five deaths on board, and three sent on shore. The first case of the latter which occurred was on the 20th October, and the last on the 28th of December. The last death from yellow fever took place on the 18th of December. The total number of deaths on board Her Majesty's steam-frigate Dauntless is stated to be 99, officers and men. Mr. Wells, surgeon of the Royal mail steamer Derwent, died from yellow fever just as the Thames left St. Thomas. Pratique was given to the Thames immediately on her arrival in Southampton Water, by Mr. Wiblin, the Medical Superintendent of Quarantine. Some fatal cases of fever had occurred at Panama, but the cessation of the long rains, and the setting in of the healthy north winds, encouraged a hope that the epidemic would soon disappear. The usual intermittent fevers were prevalent at Navy Bay. Fever had almost entirely disappeared at Barbadoes and St. Thomas's. Some cases of cholera had appeared in Barbadoes. At Martinique and Guadaloupe, where the epidemic had made such fearful ravages, particularly among the French troops, it had entirely ceased. At St. Vincent the fever had broken out, and several deaths had occurred. There had been one death among the troops, and there were six bad cases among them when the Thames left, on the 31st of January. The late Governor, Sir J. Campbell, was among the first that was carried off by the epidemic. The inhabitants were much alarmed, but the strong trade wind about setting in was expected to have a beneficial effect and arrest the progress of the disease. Yellow fever in Demerara was on the decline. In reference to British Guiana the *Royal Gazette* says:—"Fever, in a malignant form, still prevails, and strange enough to say, other diseases, as they approach a fatal termination, assume the type of yellow fever. The authorities appear at last roused to the necessity for action. The epidemic, from whatever cause arising, is no doubt increased in virulence by the unwholesome state of the atmosphere. No efficient means have yet been taken either to drain or cleanse a city affording singular facilities for having both done cheaply."

CONTAGIOUS DISEASES.—The Emperor of Brazil, solicitous for the welfare of foreigners who frequent the port of the capital, has, by a decree of the 3rd of January of the present year, founded, in the neighbourhood of Rio de Janeiro, an hospital, denominated the "Maritime Hospital of St. Isabel," in which all seamen and others from on board the vessels that may arrive in the port suffering from any contagious disorder, or suspected of the same, will be accommodated and treated in the best possible manner, free of all expense, except such contributions as they may be able and willing to make to the establishment.

POOR-LAW RELIEF.—On the 1st of January, 1852, the number of paupers in receipt of Poor-law relief was 835,360, and 799,443 on the 1st of January last. The decrease, after deducting the increase, was 35,917. Of adult able-bodied paupers the decrease was 11,098 in the year.

MORTALITY NOTABILIA.—Though the weather has lately assumed a milder character, the high mortality that prevailed throughout last month discovers no abatement; on the contrary, it exhibits a great increase. The deaths in London were 1011 in the last week of January; since that time they have steadily increased till the number registered in the week ending last Saturday amounts to 1427. The present return shows an increase of 83 above that of the week immediately preceding. Persons of all ages have suffered; of the 1427 who died, 573 were children under 15 years, 460 had attained that age but were under 60, and 379

were 60 years old and upwards. In the ten corresponding weeks of the years 1843-52 the average number of deaths was 1045, which, if raised in proportion to increase of population, gives a mortality of 1150 for last week. The actual number, therefore, exceeds the estimated amount by 277. Taking the same three periods of life as above, it appears that the mortality of the young is 13 per cent., of the middle-aged 22 per cent., and of the old 44 per cent., above the corrected average. In comparing the present results with those of the previous week, an increase is apparent both in zymotic diseases and those of the respiratory organs, but principally in the former. On 4th March, in the sub-district of Hanover-square, a doctor of medicine, aged 31 years, died of "erysipelas consequent on inoculation of poisonous matter contracted in performance of his duties as physician accoucheur of the Royal Pimlico Dispensary (9 days)." The brother of this gentleman adds, that "the duty in which he was engaged when the application of poisonous matter took place to some slight wound of the hand was the delivery of a poor woman suffering from typhus fever." In Mile-end, Old Town Lower, at 7, Devonshire-street West, on 25th February, the widow of a warehouseman, aged 44 years, died of consumption. Mr. Castleden, the Registrar, states, that "deceased had been under the care of a homœopathic doctor, who gave her up as incurable six weeks ago, and, not having seen her since, now refuses to give a certificate; she had no other medical aid." On 1st March, at the Royal Free Hospital, a man, aged 20 years, died of "pulmonary consumption (3 months)." Mr. Worrell, the registrar, says: "The name of deceased was Hori Koran. He was, I am informed, the son of a native chief in New Zealand. He was engaged as a sailor by the captain of a Liverpool ship, and was discharged, upon the arrival of the vessel, without any means of subsistence. He found his way to London, but, having no knowledge of the English language, was unable to make his case known. Having wandered about until nearly exhausted, he was noticed by a person, who took him to the Royal Free Hospital, the officers of which establishment (as I am informed by a minister who attended the deceased) paid him every attention that kindness or skill could suggest."

Meteorology.—At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·663 inches. The mean temperature of the week was 35·3°, which is 4·6° below the average of the same week in 38 years. The mean daily temperature which was 31·6° on Tuesday, when it was lowest, and was 8·4° below the average, rose to 43·9° on Saturday, or 4·1° above the average. It was below the average on every day except Saturday. The mean dew-point temperature was 29·2°. The wind, which blew from the north or north-east at the beginning of the week, changed on Tuesday to south-west. On Thursday, it again blew from the north-east, and at the end of the week returned to south-west.

DEATHS *in the Metropolis for the week ending Saturday, March 5*, 1853.

Causes of Death.	March 5. 0	15	60	All Ages.	Sum of Ten Weeks.
All Causes	573	460	379	1427	10446
Specified Causes	572	459	378	1409	10399
1. Zymotic (or Epidemic, Endemic, and Contagious) Diseases ...	186	46	12	244	1946
Sporadic Diseases:					
2. Dropsy, Cancer, and other Diseases of uncertain or variable seat ...	8	21	30	59	517
3. Tubercular Diseases	64	140	12	216	1847
4. Diseases of the Brain, Spinal Marrow, Nerves, and Senses ...	78	36	46	160	1284
5. Diseases of the Heart and Blood-vessels	4	29	27	60	376
6. Diseases of the Lungs and of the other Organs of Respiration ...	139	116	133	388	2162
7. Diseases of the Stomach, Liver, and other Organs of Digestion...	21	23	14	58	581
8. Diseases of the Kidneys, etc. ...	1	10	2	13	124
9. Childbirth, Diseases of the Uterus	1	11	...	12	109
10. Rheumatism, Diseases of the Bones, Joints, etc.	2	5	1	8	72
11. Diseases of the Skin, Cellular Tissue, etc.	1	1	1	3	16
12. Malformations	4	...	...	4	32
13. Premature Birth and Debility ...	24	...	...	24	256
14. Atrophy	24	...	9	33	174
15. Age	...	...	82	82	525
16. Sudden	5	4	1	10	128
17. Violence, Privation, Cold, and Intemperance	10	17	8	35	250
Causes not Specified	1	1	1	18	47

BOOKS RECEIVED.

Dunglison's Dictionary of Medical Science. Ninth Edition

Corrigan on Fever.

Sedwick's Human Anatomy.

TO CORRESPONDENTS.

It is requested that all communications intended for this Journal be sent to the Office, 46, Princes-street, Soho, addressed to the Editor. We have also to remind our Correspondents, that it is indispensably necessary that they forward their names with their communications, not necessarily for publication, but as guarantees of their good faith.

F.R.C.S., Royal College of Surgeons.—In the list of new Fellows published in this Journal on the 19th ultimo, these gentlemen were described as having been admitted by "*examination*;" it should have been by "*election.*"

Dr. Aldis is thanked for his communication, but he will see that we already possessed the information he has so kindly forwarded to us.

We regret exceedingly that the great demands upon our space prevented us from giving more than a bare abstract of Mr. Hodgson's address to the Royal Medical and Chirurgical Society.

We are sorry for *Mr. Milton's* disappointment, but find it impossible to publish his paper at present. It has not, however, been forgotten.

F.R.C.S.—The explanation is this, that in the Museum of the College, the Hunterian preparations are distinguished by black numbers; those derived from other sources, by red. In the catalogue the word *Hunterian* will be found added to the descriptions of the former.

A Practitioner, Plymouth.—We have before noticed that certain members of the Profession are occasionally puffed into a very undesirable notoriety by the weekly newspapers. It would be uncharitable, if not absurd, to suppose that the gentlemen themselves have any hand in the matter.

W. B., Leicester, had better apply to the magistrates of the county. It may be taken as the rule, that where sanitary precautions are neglected, there epidemic diseases will prevail.

Tyro will find the lines amongst the works of Dryden.

A Subscriber, wishing to purchase the last edition of Watson's Lectures, is recommended to apply to Messrs. Parker, of the Strand, who will give him the information he requires.

L. Buckle, Esq.—The Eau de Luce is almost identical with the Tinctura Ammoniæ Composita of the London Pharmacopœia. It is slightly antispasmodic, as well as stimulant, but is by no means superior to ether, brandy, or stimulants of this kind.

A Member of the Society of Apothecaries.—The adulterations are easily detected by one practised in chemical analysis. We shall have no objection to your forwarding us a specimen, nor to giving you our opinion upon it.

We would recommend *J. C. W.* not to find fault with the *subject* of the lectures, until he has had an opportunity of testing the *matter*.

Studens.—Apply at the Hospital on any Monday at two o'clock. The physicians will probably accede to your request.

F. R. C. P.—We believe that there are already two or three candidates in the field. We should advise you not to canvass for the other appointment mentioned without a reasonable chance of success, as by doing so you will not only waste your own money, but will entail useless expense and annoyance upon your opponent.

An Old Subscriber will find that a few kind words will at once banish all the unfriendly feeling which he imagines exists in the mind of the gentleman met in consultation. It is better not to publish the letters referred to.

G. M.—Place a weighed portion of the chain in nitric acid. By doing so, the copper and the silver will be dissolved, and the gold will be left. Then add to the copper and silver solution chloride of sodium, by which chloride of silver will be thrown down, the copper remaining in solution. Weigh the gold, estimate the weight of the silver by the weight of the chloride of silver precipitated. Subtract these numbers from the weight of the portion of gold chain assayed, and the remainder will give the weight of the copper.

COMMUNICATIONS have been received from—

St. John Edwards, Esq., University College; Dr. Aldis, Chester-terrace, Chester-square; W. D. Fairless, Esq., Crieff, Perthshire; Dr. F. H. Ramsbotham, Portman-square, and the London Hospital; A. W.; One who Loves His Country and His Profession; Dr. Maddock, Old Bond-street; Edgar Sheppard, Esq.; Dr. James Arnott, 16, Upper Gloucester-place, Dorset-square; W. M. K., Taunton.

ORIGINAL LECTURES.

LECTURES
ON THE ACUTE SPECIFIC DISEASES.
BEING THE GULSTONIAN LECTURES.

DELIVERED AT

The Royal College of Physicians.

By WILLIAM JENNER, M.D. Lond., F.R.C.P.

Professor of Pathological Anatomy, University College; Physician to the Hospital for Sick Children, etc.

Lecture II.

In practice, deviations from the types of the acute specific diseases that I compared in my last lecture, continually present themselves; and I propose now to consider, in regard of these varieties:—

A Their essential causes.

B Their determining causes.

And *C* Their phenomena.

A The essential causes of the differences in the symptoms and lesions of structure of the acute specific diseases may be referred to three heads, viz.:—

a To differences in the severity of the general specific disease.

b To variations in date of origin, extent, severity, course, and duration of the specific local processes, and to their immediate effects.

c To the presence and varying degree of severity of functional or organic complications.

a Of the deviations from their type produced by differences in the severity of the general specific disease, scarlet fever and typhus fever afford the most frequent and striking illustrations; and for these two reasons, viz.—1st., that, in both, death is not unfrequently caused by the general disease, independently, that is to say, of any change of structure; and, 2ndly, that, in both, the general disease is often of the most trivial character, and runs its course unattended by any grave or prominent local affection.

To this head are probably to be referred those differences in the suddenness of the access of these diseases sometimes observed. The more severe the general disease, the more suddenly do the patient's powers succumb to the impression produced on them; and when, towards the termination of the disease, grave constitutional symptoms occur for the first time, they are usually due—in a great measure, at least—to the severity of the specific local processes, or to the establishment of complications.

b As to the influence of the specific local processes. The skin affection is occasionally wanting in all. Arranged in the order of the frequency with which it is present in the adult, these diseases stand thus:—

Small-pox — measles — typhus fever—erysipelas—scarlet fever—typhoid fever.

Being present, the eruption in the same disease varies infinitely in amount, and, to some extent, even in appearance. Thus, only two or three rose-spots may be present in typhoid fever, and not more than half-a-dozen pustules in small-pox; while, in the same diseases, nearly the whole surface may be covered with their characteristic eruptions. In typhoid fever, a minute vesicle may in very rare cases be seen on the apex of what appear, from their colour, size, seat, and course, to be rose-spots; and the pustules of small-pox are occasionally represented by papulæ or by watery blebs. And, again; who has not hesitated now and then to say, judging from the eruption alone, whether a given case was one of measles or of scarlet fever?

This Table, from Rilliet's paper,(a) exhibits the great variations that occur in reference to the date of the appearance of the eruption after the first symptoms of measles.

Day of Disease on which the Eruption appeared in 395 Cases of Measles.

On the	1st day	in	11	cases.
,,	2nd ,,	,,	29	,,
,,	3rd ,,	,,	57	,,
,,	4th ,,	,,	77	,,
,,	5th ,,	,,	76	,,
,,	6th ,,	,,	42	,,
,,	7th ,,	,,	34	,,
,,	8th ,,	,,	12	,,
,,	9th ,,	,,	35	,,
,,	10th ,,	,,	4	,,
,,	10th to 13th	,,	12	,,
,,	13th to 16th	,,	6	,,

The duration of the eruption is equally variable. Sometimes it vanishes in twenty-four hours; in other cases its duration is singularly prolonged. Thus, in one of Rilliet's cases, it attained its height as late as five days after its appearance; and, in one detailed by Reveillé-Parise, fifteen days after its commencement. Sometimes it almost disappears, and then returns more intensely than at first.

In scarlet fever, the date, after the first symptoms of illness, of the appearance of the rash varies much. Often present on the first day, it is not unfrequently delayed till the third day, and, in one of the cases referred to in the table, it appeared for the first time on the 7th day. Rilliet and Barthez say, that, in the cases they watched, the eruption now and then disappeared on the 5th day, and that it sometimes continued out even to the 10th day. This table shows the period of the disease at which I noted the appearance of the rash in 24 cases:—

Day of Disease on which the Rash Appeared in twenty-four Cases of Scarlet Fever.

On the	1st day	in	7	cases.
,,	2nd ,,	,,	10	,,
,,	3rd ,,	,,	2	,,
,,	4th ,,	,,	2	,,
,,	5th ,,	,,	1	,,
,,	6th ,,	,,	1	,,
,,	7th ,,	,,	1	,,

And this table the day of the disappearance of the rash in 54 unselected cases, including all those that have come under my care in the Hospital for Sick Children:—

Day of Disease by which the Rash had Disappeared in Fifty-four Cases of Scarlet Fever.

On the	5th day	in	1	case.
,,	6th ,,	,,	3	,,
,,	7th ,,	,,	5	,,
,,	8th ,,	,,	13	,,
,,	9th ,,	,,	12	,,
,,	10th ,,	,,	8	,,
,,	11th ,,	,,	4	,,
,,	13th ,,	,,	2	,,
,,	14th ,,	,,	2	,,
,,	16th ,,	,,	2	,,

In typhus fever, the eruption may appear as early as the third day; sometimes, however, it is delayed till so late as the 9th day. This table shows the date of its disappearance in 68 unselected cases:—

Day of Disease by which the Mulberry Rash had Disappeared in Sixty-eight Cases of Typhus Fever.

On the	7th day	in	1	case.
,,	8th ,,	,,	1	,,
,,	9th ,,	,,	2	,,
,,	10th ,,	,,	1	,,
,,	11th ,,	,,	3	,,
,,	12th ,,	,,	3	,,
,,	13th ,,	,,	2	,,
,,	14th ,,	,,	9	,,
,,	15th ,,	,,	8	,,
,,	16th ,,	,,	8	,,
,,	17th ,,	,,	8	,,
,,	18th ,,	,,	5	,,
,,	19th ,,	,,	5	,,
,,	20th ,,	,,	5	,,
,,	21st ,,	,,	4	,,
,,	23rd ,,	,,	1	,,
,,	25th ,,	,,	2	,,

(a) *Gazette Médicale*, 1848.

In typhoid fever, the eruption may be seen as early as the fifth day of disease, while spots sometimes appear for the first time as late as the 20th day, and fresh spots as late as the 32nd day.

The day of appearance, and the duration of the skin affection, in small-pox, are comparatively constant, but the modifications in the other symptoms produced by its extent and severity are very great.

"Very many patients," says Dr. Gregory, "die between the 8th and 12th days of the eruption, from the combined effects of cutaneous and cellular inflammation."

The specific local process of the skin modifies the symptoms of small-pox; 1st, by interfering with the due performance of the functions of that structure; and, 2ndly, by exciting symptomatic constitutional disturbance.

Erysipelas is another of these acute specific diseases in which the external local process is in some instances so severe as to modify greatly the phenomena of the disease. Sometimes the inflammation, instead of causing œdema only of the subcutaneous tissue, leads to the exudation of pus blastema; the constitutional disturbance is in such cases fearfully increased by the severity of the local process, and the duration of the general illness greatly prolonged.

As to the symptoms due to the internal specific local processes, they also may be altogether absent. We see measles without catarrhal symptoms; scarlet fever without sore throat; small-pox without any affection of the nasal, buccal, or laryngeal mucous membranes; typhoid fever without diarrhœa; erysipelas without pain in deglutition,—and in all we see the symptoms of the internal affections most intense. The influence of the internal specific processes in modifying the symptoms is well seen in some cases of small-pox and typhoid fever.

In small-pox, about the seventh day of the eruption severe symptoms, arising from the specific process established in the larynx and trachea, are not uncommon. The patient up to that time has perhaps suffered severely, but yet from no symptoms calculated to awaken alarm in the inexperienced. A little hoarseness, some hard cough, first dry, and subsequently accompanied by tenacious mucous expectoration, are all that indicate the presence of the specific lesion, which in two or three days more proves fatal.

The laryngeal, like the skin affection, modifies the symptoms of small-pox in two ways,—

1st. By exciting symptomatic constitutional disturbance, and so adding in appearance to the severity of the specific constitutional disturbance; and,

2ndly. By interfering with the due performance of the respiratory function.

The specific intestinal and mesenteric diseases often give a complexion, as it were, to cases of typhoid fever; and they do so—

Sometimes by inducing direct abdominal symptoms of a more severe character than occur in typical cases; *e.g.*, great pain, distension of the abdomen, or extreme sensibility to pressure.

Sometimes by leading to diarrhœa, or to hæmorrhage from the bowels, and so depressing the powers of the patient that he is unable to bear up against the specific general disease.

In some cases the hæmorrhage itself proves directly fatal; thus I have seen a man suffering from typhoid fever at a time when his general powers were little impaired, when he was able to sit up and converse freely with those around him, suddenly lose so much blood from the bowels as to be reduced in half an hour to a state of extreme exhaustion, and then, in the course of a few hours, be carried off by a return of the hæmorrhage.

And sometimes by causing perforation of the peritoneum. When this occurs, the patient may sink rapidly from acute general peritonitis, or more gradually from a more chronic form of the same disease.

The primary breach of surface of the intestinal mucous membrane seems to be effected in three modes:—

1st. By thickening and softening of the mucous membrane, and then the detachment of the softened membrane, in the form of molecules of inappreciable magnitude. 2nd. By the effusion of lymph on and into the mucous membrane, and the separation of the former with minute portions of the latter,—still portions of some size. 3rd. By the detachment of large sloughs. In these latter cases there is always, at an early stage of the disease, a deposit of protein matter—using that word in its largest sense—in the submucous cellular tissue. This substance is friable, of a pale yellowish colour, and now and then marked with vascular striæ, apparently the vessels of the tissue in which it is placed. It has been called typhous matter, and is susceptible only of the lowest form of cell development. It is probably rarely, if ever, absorbed from the submucous tissue, and never enters into permanent relation with the structures amid which it is placed. Before the thirtieth day of disease, the whole of this matter is ejected; and in this wise, by its accumulation in the submucous tissue, the nutrition of the mucous membrane is so seriously impaired that it dies, and then both it and the foreign matter are thrown off in the form of a slough of considerable size. Sometimes the whole of the newly-deposited protein matter is separated at the same instant, at others it comes away in several pieces. But however this may be, when the whole of it has been thrown off, the mucous membrane is found to have been detached from the submucous tissue to a greater extent than it has been destroyed; so that, if a portion of intestine, on which is an ulcer in this stage, is placed in water, the edges of the ulcer float upwards, as in this preparation put up by my friend Dr. Sankey, and this from University College Museum.

Destruction of the other coats of the intestine is effected thus—by ulceration, or, as ulceration is pathologically termed, by molecular death, the inferior layer of the submucous cellular tissue is destroyed, and then the floor of the ulcer is formed of the muscular fibres of the intestine. These fibres swell, grow intensely red, soften, and then die molecularly, and so the peritoneal coat is exposed.

The actual perforation of this membrane may be the result of the continuance of the process by which the muscular coat was destroyed, viz., molecular death, and then one or more minute rounded apertures are formed in the floor of the ulcer; more commonly a portion of the peritoneum of some magnitude dies, and then a slough dyed with the intestinal fluids may be found in some cases attached to one point of the aperture; and, lastly, but so rarely that it has been denied by some, rupture of the delicate layer of peritoneum that constitutes the floor may take place. Of this perforation of the intestine by rupture I do not myself remember ever to have seen an example in typhoid fever; but I have seen an unequivocal case of the kind in a child the subject of tubercular ulceration of the large intestine; and, from the tenuity of the floor of the ulcer in some cases of typhoid fever that have fallen under my observation, I cannot doubt the possibility of its occurrence in that disease. The fact of such an accident being possible should teach us to be careful in manipulating the abdomen of patients in an advanced stage of typhoid fever.

As the destruction of the walls of the intestines progresses lymph is sometimes deposited on the external surface of the peritoneal coat corresponding to the ulcers, without adhesions to surrounding parts being effected. But in some cases adhesions are formed, and then perforation of the intestinal walls may take place without any escape of the intestinal contents into the peritoneal cavity. Sometimes, again, adhesions unite adjacent folds of intestine, and the borders of these folds adhering to the parietal peritoneum, a circumscribed cavity is formed. Opening into such a cavity an aperture is sometimes found communicating with the interior of the intestinal canal. In such cases a considerable period may elapse between the perforation and the escape of the contents of the intestines, and the death of the patient, and then most extensive organic changes may be discovered after death. In such a case, I have seen large tracts of the parietal peritoneum destroyed by ulceration and sloughing.

But, however perforation of the intestine is effected in typhoid fever, and whatever adhesions take place, it may be laid down as a law, to which nothing on record affords an exception, that ultimate recovery is never accomplished, and that, sooner or later, death is the consequence of intestinal perforation. The adhesions, as Rokitansky says, are never permanent.

To describe the general appearance and the structure of the glandulæ agminatæ, or Peyer's patches, is here needless; every one is familiar with them. But there are one or two points in connexion with these structures to which I must advert, because errors respecting them have found their way into very able works; for example, Dr. Flint's reports. I allude especially to the anatomical causes, and the signification of their degree of visibleness.

(1) In young children Peyer's patches are always readily seen, and about the period of the first dentition, are often

very distinct. Their extreme visibleness in the intestines of these subjects, as well as in those of some adults, is ordinarily due to the prominence of the ridges of mucous membrane between the pits in which the sacculi lie. This is well seen in this preparation of the intestines of a young child who died of bronchitis; in this preparation from the College Museum; and in this preparation, from the Museum of University College, of the intestine of an adult killed while in health by an accident.

(2) In aged persons, and in some adults less advanced in years, Peyer's patches readily catch the eye, in consequence of their being smooth, and of an opaque dull white hue. In such cases they are sometimes less prominent than the adjacent membrane.

When the patches have lost the projections between the pits, and have not experienced that conversion of structure which is indicated by the appearances just mentioned, they may readily be passed by unnoticed; nay, may require to be sought for carefully before they can be discovered. Under these circumstances, they have been sometimes said to be absent.

(3) A third cause of the facility with which Peyer's patches are seen is, that they sometimes remain pale when the vessels of the mucous membrane around them are injected with blood.

(4) While a fourth reason of their distinctness is the presence on them, in some cases, of small blackish grey, or black points, giving to them an aspect which has been compared to the recently shaven beard. This appearance is produced by the action of the intestinal gases on the blood contained in the capillaries which lie in the folds of mucous membrane surrounding the pits containing the sacculi.

No one of these four conditions of the glandulæ agminatæ, or Peyer's patches, is connected with any particular disease, though the last mentioned occurs whenever the circulation through the vessels of these parts has been delayed for any length of time. This much is certain, that they have no connexion with the lesions proper to any form or species of fever.

In the mesenteric glands exudation matter is sometimes found identical in appearance with that in the submucous tissue of the intestine. Like that it is susceptible only of the lowest cell development, and therefore incapable of forming a permanent part of the organism. From its situation it cannot, like that in the submucous tissue, be ejected. It appears to undergo two changes, viz., softening and fatty degeneration.

By its softening it forms a purulent-looking fluid, and constitutes a variety of pseudo-abscess. The fluid thus found may be absorbed, or the peritoneum over it may give way, and peritonitis, general or partial, be the result.

Masses of typhoid matter in the mesenteric glands soften first at the circumference, so that a lump of unsoftened matter is often found bathed in a purulent-looking fluid.

By fatty degeneration I mean a metamorphosis, or conversion into fat of the exudation protein matter by a rearrangement of its elements. A change which protein matter of low organization, or without the power of developing into tissue, constantly experiences. This conversion into fat may be effected either before or after softening has taken place, and the fatty matter thus formed may subsequently be absorbed. In fact, fatty degeneration is one mode in which solid fibro-albuminous substances are brought into a state suitable for absorption. The process by which the healing of the typhoid ulcers is accomplished is of interest, practically and pathologically. It seems to be this: The floor of the ulcer after every part of the substance deposited during the progress of the specific disease has separated, becomes smooth, and of a pale, bluish-white colour—it is covered with a delicate layer of healthy organizable lymph—to this layer, which extends under the detached mucous-membrane at the edges of the ulcer, the latter adheres (gradually from without inwards, *i.e.*, from the circumference towards the centre). If the intestine be now placed in water, the edges of the ulcer no longer float upwards. After a time, all that remains is a flat, smooth, shining, and somewhat depressed surface, to which the transition from the mucous membrane around is insensible. At first this smooth surface is, unlike the natural mucous-membrane, fixed to the subjacent coat, so that it cannot be moved on the latter. Ultimately, however, it can be so moved, and is then scarcely to be distinguished by the unaided eye at least from normal mucous membrane. It is important to remember, that constriction of the intestine has never been known to result from the healing of a typhoid ulcer.

Occasionally, in the progress of typhoid fever, a deposit similar to that which is seated in the intestinal wall and in the mesenteric glands is found in other parts; the spleen, walls of the gall bladder, lungs, and kidneys are the organs in which I have seen such deposits. By their consequences, these deposits may lead to modifications in the primary disease.

Thus, in the spleen it may soften, form a pseudo-abscess, and ultimately induce general inflammation of the peritoneum, either by bursting into the abdominal cavity, or by exciting inflammation of the serous membrane covering itself, and then that inflammation spreading over the whole extent of the membrane. A case of the latter kind lately proved fatal under my care in University College Hospital.

c The third great cause of the modifications in the symptoms of the acute specific diseases is the occurrence of local complications.

By the term complications are signified those affections which may exist as substantive diseases; *e. g.*, pleurisy, pneumonia, hæmorrhage into the cavity of the arachnoid, and also those extreme functional derangements of particular organs, which are out of proportion to the severity of the general disease.

Of the influence of these local complications, in causing deviations from their type, measles, typhoid fever, and scarlet fever afford frequent examples. The symptoms and course of measles are singularly modified by the occurrence of pneumonia; thus, if severe pneumonia be established during the stage of invasion, the eruption in many cases never appears, and when it does appear it is pale and of short duration. If the pneumonia be set up after the eruption has appeared, then the course of the latter is considerably shortened: it quickly disappears. Neither bronchitis nor enteritis, according to Rilliet's observations, have any such effect on the course of the eruption.

In cases of typhoid and scarlet fevers, it is by no means uncommon to see aberration in the functions of the brain manifested by violent delirium or extreme depression, when from an examination of that organ we are satisfied that it was the seat of no more vascular engorgement than the brains of those who die without having exhibited any such symptoms. This extreme cerebral excitement is often witnessed when the other symptoms do not warrant the opinion that the case is one of great gravity.

In a diagnostic point of view it is well to know, that after the patient becomes delirious in the acute specific diseases, he never complains of headache, and rarely admits its existence, even when questioned concerning it, while in cases of intracranial inflammation headache is constantly, and often loudly, complained of after delirium has commenced.

B These, then, being the essential causes of the chief deviations from their typical form of the acute specific diseases, it remains to consider the circumstances which determine the severity of the general specific disease, the extent and severity of the local specific processes, and the supervention of complications.

These are,—

a The vital conditions of the patient.

b The external circumstances by which he is surrounded.

a The influence of the vital conditions incident to age in modifying the severity of the general disease, and the specific local process, is well seen in typhus fever.

The mortality from typhus fever in persons between the ages of six years and fifteen years is very trifling, not more than 2 or 3 per cent. The mulberry rash in the same class of persons is either absent, or pale in hue and scanty in quantity, except in rare cases. While the mortality in persons more than 50 years of age is about 56 per cent., and in them the mulberry rash is always present, and ordinarily dark and abundant. Typhus fever, too, very often proves fatal to those past the middle period of life without any local complication having been established in its course, while this never happens in the young. Nay, an abundant rash, a brown tongue, and marked prostration, are uncommon symptoms in typhus fever when it affects children.

Other instances of the modifying power of the vital condition of the patient over the phenomena which follow the introduction of the specific element into the system are offered by the fact, that strumous children, when the subjects of scarlet fever, suffer much more frequently than others from acrid discharges from the eyes, ears, and nose; from swelling of the parotid and the parts in its vicinity; and that

women who contract scarlet fever in the puerperal state, comparatively speaking, rarely recover. It cannot in any of these cases be supposed, that the difference in the severity of the general disease, or the specific local processes, depends on a difference in the poison, or in the quantity of the poison. It can depend solely on the different conditions of the recipients.

In some persons, again, from constitutional idiosyncrasy, great general disturbance is produced by comparatively slight local disease. Now, if in these persons any local complication be set up in the progress of a specific disease, or if the specific local processes be severe in nature, then the sympathetic constitutional disturbance, superadded to the specific disease, materially modifies its symptoms. This same constitutional idiosyncrasy is manifested in the excitement which particular organs suffer in some individuals from a cause which has no influence in producing the same symptoms in others. In some the brain is peculiarly prone to sympathise, as it is called—a term which probably signifies, in these cases, that the presence in the blood of an element which produces no aberration from the function of the brain in one individual, is, in another, from a difference in the susceptibility of that organ to that stimulus, sufficiently potent to produce delirium, etc.

These differences may be illustrated by a reference to the differences observed in the effects of alcoholic drinks on the cerebral functions in different individuals.

b The external conditions on which deviations of the acute specific diseases from their types depend, are,

1st. Readily appreciable atmospheric changes. These changes modify the symptoms and the course of the acute specific diseases, by inducing intercurrent affections, complications, *e.g.*, pneumonia in measles.

2ndly. The epidemic constitution. This, it is said, manifests its influence, not only by determining the prevalence of particular diseases, but also by impressing on them peculiar modifications. *Now*, almost every case requires the administration of powerful stimulants; *then* the lancet is the chief agent in diminishing the mortality. Our ideas, however, on the meaning of the term "epidemic constitution," are undergoing considerable change. But, granting the epidemic constitution to be something totally distinct from directly appreciable atmospheric changes, there is every reason to believe that its influence in determining differences in the type of these diseases has been greatly over-rated.

First, because under one name several diseases have been, in times past, confounded, and what was due to difference of disease was referred to difference of type. The fever for which the lancet was used so freely in 1818, without injury to the patient, was relapsing fever; and the estimation in which blood-letting was held rested on the fact, that nature terminated the apparently severe attack, aided or unaided by the treatment, in less than a week. Stimulants have been held in high repute in late times, because the disease we have had to treat has been typhus fever. The constitution of the air has favoured the prevalence now of one and now of the other; but the sporadic cases of either which occurred during the prevalence of the other, required the same treatment that they did when they themselves were epidemic. Cases of relapsing fever that occur when typhus prevails need no wine, and cases of typhus fever that occur when relapsing fever is epidemic, need stimulating as much as they do when typhus is itself epidemic; just as sporadic cases of scarlet fever that occur during an epidemic of measles require the treatment fitted for scarlet fever, and the reverse.

A second reason why such great powers in modifying the acute specific diseases were assigned to the epidemic constitution by the old observers, was, that variations in the symptoms resulting from intercurrent affections, induced by appreciable atmospheric changes, were not, from imperfections in the art of diagnosis, separated from the variations dependent on differences in the severity of the specific diseases themselves.

3rdly. The third class of external circumstances which modify the acute specific diseases, are endemic influences, under which head I would include imperfect ventilation, overcrowding, and want of drainage. The effect of these is to increase the severity of the general disease, to impress on it a typhoid type. A striking proof of this is afforded by the sudden change in the type of the symptoms often seen on removing the poor from their close-crowded rooms to the well-ventilated wards of an hospital.

[To be continued.]

A COURSE OF LECTURES ON ORGANIC CHEMISTRY,

DELIVERED IN THE

Laboratory of the Royal Institution of Great Britain.

By DR. A. W. HOFMANN, F.R.S.
Professor at the Royal College of Chemistry.

Lecture IV.

Gentlemen,—Before proceeding to the details of the several groups of organic substances which I intend to bring under your notice, I must beg your permission to return once more to the formulæ by which we are in the habit of representing the composition of chemical compounds. I have explained to you, in the last Lecture how, by a series of exceedingly simple calculations, we pass from the percentage composition of a substance to its simplest atomic expression; but I mentioned, at the same time, that this expression is not always adopted as representing a compound in the most appropriate manner. We have now to inquire by what reasons chemists have been induced, in some cases, to select more complicated formulæ in the place of the simpler ones. A variety of considerations, many of a somewhat arbitrary nature, have been brought to bear upon this subject. Some of the more important of these have now to be discussed.

A very interesting result to which chemists were led, at an early period, by the study of mineral substances, was the recognition of the fact, that certain elements, or groups of elements in chemical compounds, were replaceable by other elements, or groups of elements, the introduction of which, though it modified, to a certain extent, the properties of the primitive substance, did not altogether interfere with its normal chemical character. You probably know that the recognition of this fact, together with many collateral observations, has led to the establishment of the theory of chemical equivalents. Take the following illustrations:—In ordinary carbonate of potassa you have a compound of carbonic acid and potassa, in which you may replace either the acid or the base by a whole series of analogous substances; on adding nitric acid to this salt, the carbonic acid is evolved with effervescence, the well-known nitrate of potassa being produced; this salt, when submitted to the action of sulphuric acid, yields its nitric acid, (you may recollect this is the ordinary method of preparing nitric acid,) while the sulphate of potassa remains behind.

The quantities of nitric and sulphuric acid required to replace a given amount of carbonic acid, have been determined with great accuracy, and thus a series of numbers has been obtained representing the relative proportions in which these several acids unite with a certain amount of potassa. These numbers express equivalent weights,—*i.e.*, quantities possessing the same value in relation to potassa, quantities capable of producing with potassa the same effect,—in other words, compounds in which the properties of the potassa are counterbalanced by those of the acid with which it enters into combination. You clearly perceive that these numbers are altogether relative, their absolute value depending upon the actual amount of potassa which is taken as a starting point. Chemists have, however, endeavoured to impress upon these numbers a more absolute character, by fixing the quantity of potassa which, for the sake of convenience, should be taken as a standard of comparison. Without attempting to give here a full account of the theory of equivalents (of which the question before us is but an isolated case), I may remind you that the propor-

tions in which substances combine with each other are now almost universally referred to one unit by weight of hydrogen. This, you observe, is entirely a matter of convention, and, indeed, some time intervened before the great majority of chemists actually agreed on this point. But, so soon as this matter was settled, it is obvious that all the relative proportions became, for all the purposes of calculation, a series of absolute magnitudes. One part of hydrogen being taken as the unit, we have only to determine the amount of potassium capable of replacing it in any hydrogen-compound —in water for instance—and farther to ascertain the quantities of carbonic, nitric, and sulphuric acids, which unite with the amount of potassa thus produced. We arrive in this manner at absolute numbers for the equivalents of those several acids. Experiment has shown, that to replace 1 part of hydrogen in water 39 parts of potassium are required,—*i.e.*, 39 of potassium are equivalent to 1 of hydrogen; 39 of potassium, when uniting with oxygen, combine with 8 parts of it. To find the equivalents of carbonic, nitric, and sulphuric acids, we have to determine experimentally the respective quantities of these acids combining with 39 + 8 = 47 parts of oxide of potassium or potassa. Experiment has shown that these equivalents are as follow :—

Carbonic acid	22
Nitric ,, ...	54
Sulphuric ,, ...	40

These numbers represent the so-called anhydrous acids; —the carbonic acid in the perfectly dry state; the nitric acid, as (according to recent researches of M. Deville) it is procured with great difficulty by the action of chlorine upon nitrate of silver; lastly, sulphuric acid, as it is obtained by the distillation of many sulphates in the form of silky crystals. Most acids, however, almost invariably occur in combination with water; for instance, nitric acid as *aqua fortis*, and sulphuric acid as common oil of vitriol; it is, therefore, frequently more convenient to state the equivalents of the hydrated acids. It is obvious that these equivalents are obtained by adding to the above numbers an equivalent of water, or 8 + 1 = 9. Therefore,

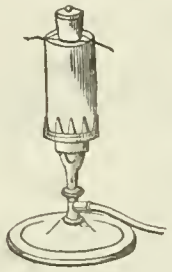
Hydrated carbonic acid	=	22	+	9	=	31
,, nitric ,,	=	54	+	9	=	63
,, sulphuric ,,	=	40	+	9	=	49

The same facts may be stated in a somewhat different manner. Dismissing for the moment the consideration of the anhydrous acids, which, in fact, only occur very rarely, we may say that the equivalent of an hydrated acid is that amount in which one equivalent of water is replaceable by one equivalent of potassa, or, better still, that amount in which one equivalent of hydrogen is replaceable by one equivalent of potassium. I repeat to you, this mode of establishing the equivalent of an acid is entirely arbitrary; any other substance than hydrogen might have been chosen as a standard, when all the numbers would have been altered, although their relation would have remained exactly the same. I should moreover mention, that there are certain classes of acids, the equivalent of which is fixed in a somewhat different manner. These, however, I will not consider for the present, in order not to complicate the subject.

Chemists have further agreed, that the formulæ by which they express the composition of substances should represent exactly their equivalents. This is the case with the acids which I have quoted, the formulæ of which are familiar to you :—

CO_2, HO or $CO_3 H$ = 6 + (8 × 3) + 1 = 31
NO_5, HO or $NO_6 H$ = 14 + (8 × 6) + 1 = 63
SO_3, HO or $SO_4 H$ = 16 + (8 × 4) + 1 = 49

Now that I have explained to you the meaning of the term "equivalent" when applied to an acid, I may briefly show you how this equivalent is determined, if the acid under examination be an organic acid. Benzoic acid may serve again as an illustration,—its percentage composition, and its simplest atomic formula have been ascertained in the preceding lecture. Let us recollect, we have to determine the quantity of benzoic acid in which 1 of hydrogen is replaceable by 39 of potassium; to attain this result, we might form a potassium-compound, estimate the amount of potassium in it, and calculate accordingly. This is not, however, the process generally adopted; the estimation of potassium is attended with practical difficulties, and it is preferable, therefore, to replace the potassium by some other metal which is easily separated. The metal most frequently employed is silver. For this purpose, the solution of the potassium-compound is decomposed by a solution of nitrate of silver, when a white crystalline salt (benzoate of silver) is precipitated, which is collected upon a filter, washed, and carefully dried; a weighed quantity of this silver-salt is then gradually ignited in contact with the atmosphere, when all the carbon, hydrogen, and oxygen are expelled in the form of volatile products, such as carbonic acid and water, there remaining only the silver, which can be accurately weighed. In an experiment of this kind, 9 grains of benzoate of silver left 4·24 grains of metallic silver, which shows an experimental percentage of 47·11 silver in this salt. If we now recollect that 108 parts of silver are equivalent to 39 of potassium, or 1 of hydrogen, we have all the data necessary to calculate the equivalent of benzoic acid; this equivalent evidently equals a weight of benzoate of silver, containing 108 parts of silver, from which we subtract this quantity of silver, replacing it by 1 of hydrogen.



We have the following proportion :—

$$47{\cdot}11 : 108 = 100 : x$$

$$x = \frac{100 \times 108}{47{\cdot}11} = 229{\cdot}5$$

229·5 is the equivalent of benzoate of silver; if in this salt we exchange 108 of silver for 1 of hydrogen we arrive at the equivalent of benzoic acid.

229·25 — 108 + 1 = 122·25 equivalent of benzoic acid.

Let us now compare this number with the number represented by the formula which was established in the last lecture, by translating the percentages of carbon, hydrogen, and oxygen found into the simplest atomic expression. This formula was

$$C_7 H_3 O_2$$

and the weight represented by this formula is

7	atoms of carbon	42
3	,, hydrogen	3
2	,, oxygen	16
		61

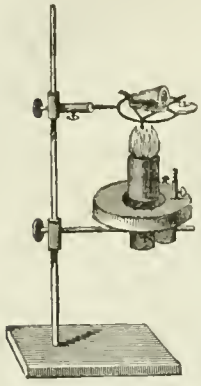
It is seen at the first glance, that the number furnished by the determination of the equivalent is double that represented by the simplest atomic formula. The equivalent of benzoic acid weighs twice as much, contains twice as much matter, as is indicated by this formula; or, in other words, the formula, in order to correspond with the equivalent of benzoic acid, has to be doubled to

$$C_{14} H_6 O_4$$

14	atoms of carbon	84
6	,, hydrogen	6
4	,, oxygen	32
1	atom of benzoic acid	122

A series of perfectly analogous considerations may be applied to the second formula, which we have calculated together in the last lecture, viz., that of aniline. This compound belongs to a very numerous class of substances, which are called organic bases, the character of which I hope to bring before you in a special lecture. Chemists have agreed that by the term equivalent of an organic base, that quantity of the base should be represented which combines with 1 equivalent of an acid. To determine the equivalent of aniline, it would be sufficient to ascertain the quantity which

unites with 122 of benzoic acid, with 63 of nitric, with 49 of sulphuric acid,—in other words, to analyse the benzoate, nitrate, or sulphate of aniline. But in this case, too, we find that practice has pointed out the compounds with certain acids as peculiarly adapted for determinations of this description. The compounds of such bases with hydrochloric acid are frequently employed, but oftener still the salts which they form with a rather complicated acid, hydrochloroplatinic acid, consisting of 1 equivalent of hydrochloric acid, and 1 equivalent of bichloride of platinum. These salts are readily prepared, and just as easily analysed; for it suffices to ignite them exactly as we did in the case of benzoate of silver. The residuary platinum enables us to calculate the equivalent of the base.



In an experiment of this kind,

15 grains of aniline-platinum salt left
4·91 grains of metallic platinum.

This corresponds to a theoretical percentage of 32·93.

From this percentage of platinum, we find without difficulty the equivalent of the platinum-salt. This is evidently the amount of salt which contains 1 equivalent of platinum.

We have the proportion

$$32{\cdot}93 : 99 = 100 : x \; ; \; x = \frac{100 \times 99}{32{\cdot}93} = 300{\cdot}6$$

In order to find the equivalent of aniline, we have to subtract from the equivalent of the salt the weight of 1 equivalent of hydrochloroplatinic acid, which, as was mentioned previously, consists of 1 equivalent of hydrochloric acid, and 1 equivalent of bichloride of platinum.

1 equivalent of hydrochloric acid . . .		36·5
1 ,,	bichloride of platinum .	170·0
		206·5

Hence the equivalent of aniline

300·6 — 206·50 = 94·1.

The simplest atomic expression for aniline from the estimation of the carbon, hydrogen, and nitrogen, you will remember, was

C_{12} H_7 N

The weight of matter represented by this formula very nearly coincides with the equivalent deduced from the platinum-salt, as may be seen by the following comparison:—

12	atoms of carbon	=	72
7	,, hydrogen	=	7
1	,, nitrogen	=	14
			93

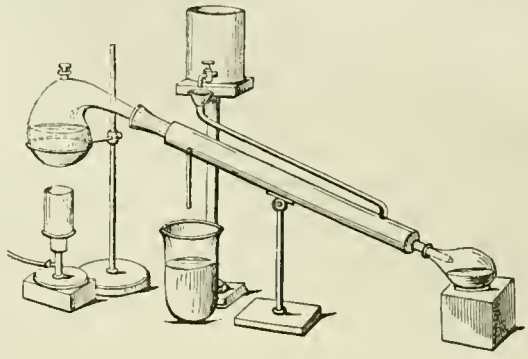
Hence the simplest atomic formula for aniline represents likewise the equivalent of this substance.

The third substance the analysis of which was considered in the last lecture, was, as you recollect, benzol, for which we calculated the atomic formula

C_2 H

Now, does this formula really represent the equivalent of benzol? This hydro-carbon is what is called an indifferent substance, *i. e.*, it neither combines with acids nor with bases, at least not to form compounds from which it can be separated again undecomposed.

The methods of controlling the atomic formulæ which were employed in the case of benzoic acid and aniline are not applicable to benzol. With such substances, the choice of the formulæ is generally determined by a series of considerations which vary according to the nature of the compounds, and for which a rule of universal application can scarcely be established. The commonest mode of proceeding is to inquire into the origin and family relations of the compound. We seek among its ancestors, or among its descendants, for a compound whose equivalent may be readily determined, and which enables us to infer forwards or backwards what the formula of the indifferent compound may be. Let us apply this rule to benzol. The source from which Mr. Faraday originally obtained this substance (the distillation of a variety of fatty bodies for the purpose of making gas) is not calculated to throw much light upon the nature of this compound; but the existence of this body once established, its percentage composition ascertained, and its properties described, it was not long before its formation was recognised under circumstances scarcely admitting of any doubt regarding the true formula of benzol. Professor Mitscherlich, in Berlin, and M. Peligot, in Paris, observed simultaneously that *benzoic acid*, (the very acid the equivalent of which we have just now determined,) when submitted to distillation with an excess of lime or baryta furnishes this substance in a state of perfect purity and with great facility, as you will perceive from the operation which is proceeding under your eyes.



In this decomposition, the whole of the oxygen in the benzoic acid separates from it combined with carbon in the form of carbonic acid which remains in combination with the baryta. The decomposition of benzoic acid by means of baryta is represented by the following diagram:—

From ..	..	C_{14}	H_6	O_4 + 2BaO		
Deduct	..	C_2		O_4 + 2BaO	=	2 (BaO, CO_2)
There remains		C_{12}	H_6			Two atoms of carb. of baryta.
			Benzol.			

It is evident that after deducting two equivalents of carbonic acid from benzoic acid, the carbon and hydrogen remain in the proportions of C_{12} H_6, *i. e.*, in the relation of two of carbon to one of hydrogen (C_2 H,) or in the atomic ratio which we have originally established for benzol. We have now the choice of assuming that 1 equivalent of benzoic acid, when decomposed by baryta, yields either 1 equivalent or 6 equivalents of benzol. The former of these assumptions is simpler. We prefer it, although it compels us to raise the original atomic expression by multiplying it by 6. The considerations which I have just now explained would alone perhaps have been scarcely deemed sufficient for adopting the formula C_{12} H_6 for benzol in preference to that of C_2 H originally deduced. But the study of the derivatives of benzol, of its products of decomposition, under the influence of powerful chemical agents, is likewise in favour of the higher formula. Common nitric acid has no effect upon benzol; the concentrated acid, however, re-acts upon this substance with great violence—the benzol dissolves. On mixing the clear liquid with water, a dense oil is precipitated, possessing in a remarkable manner the odour of oil of bitter almonds, to which, in order to remind us of its origin, the name of "nitrobenzol" has been given. The analysis of nitrobenzol has shown that this compound contains, nitrogen and oxygen in addition to the elements of benzol. The simplest atomic expression, by which the results obtained in the analysis of this compound can be represented is the formula

C_{12} H_5 N O_4

We have again here the choice of assuming, that, in the formation of nitrobenzol, the nitric acid has acted upon either 6 equivalents of the substance C_2 H, or upon 1 equivalent of the body C_{12} H_6. We prefer the latter; and accordingly represent the change which benzol undergoes under the influence of nitric acid by the equation

C_{12} H_6	+	NO_5	=	C_{12} H_5 N O_4	+ HO
Benzol.				Nitrobenzol.	

Moreover, nitrobenzol, when dissolved in an alcoholic solution of ammonia, and treated with sulphuretted hydrogen, undergoes a farther change, with the details of which you will become acquainted bye and bye, but the result of which is the formation of "aniline,"—the very alkaloid the equivalent of which we have just now determined by the analysis of its platinum-salt. The equivalent of aniline contains indubitably 12 atoms of carbon; and we thus obtain additional evidences in favour of the formula C_{12} H_6 for benzol, which, in fact, completely harmonises both with the origin of the substance, and with its products of decomposition. Indeed, on looking at the following series of formulæ, representing the substances which have been submitted to your consideration,

Benzoic acid . . .	C_{14}	H_6	O_4
Benzol	C_{12}	H_6	
Nitrobenzol. . . .	C_{12}	H_5	N O_4
Aniline	C_{12}	H_7	N

we cannot doubt that the formula C_{12} H_6, although less simple than C_2 H, nevertheless expresses the relation of this body with other substances more completely than any other. You will see, moreover, that this formula is supported also by other considerations.

A similar mode of proceeding is generally adopted in the case of indifferent substances. But it is evident that the detail of the considerations must vary greatly with the nature of the several substances. Frequently, however, it happens, that the exact circumstances under which indifferent substances are generated are unknown, and that they are likewise deficient in yielding products of decomposition possessed of salient properties. In such cases, we have still a means of controlling the formula as established by analysis, provided the substance be volatile. This control consists in the determination of the specific gravity or the density of the vapour which substances form at high temperatures. Now, as this control is very frequently adopted, even in cases in which we are by no means reduced to this last resource, and as both the considerations which it involves and the mode of experimenting, are particularly interesting, I will, before concluding these remarks upon formulæ, direct your attention briefly to this subject in the next Lecture.

SCIENTIFIC LECTURES.

HUNTERIAN LECTURES ON THE ANATOMY AND PHYSIOLOGY OF FISHES AND REPTILES.

By RICHARD OWEN, F.R.S.,
Hunterian Professor to the College.

Tuesday, March 22.—Lecture I.—General characters of the Vertebrate Animals, as afforded by the nervous system, the organs of sense and of locomotion, the skeleton, the digestive, circulating, respiratory, and generative systems. Cold-blooded Vertebrata, their characters, and why so called. Characters of the class *Pisces*. Primary divisions of the class according to Linnæus, Cuvier, and Agassiz. Points in the organization of fishes expressed by the characters of the orders:—1. Dermopteri; 2. Malacopteri; 3. Pharyngognathi; 4. Anacanthini; 5. Acanthopteri; 6. Plectognathi; 7. Lophobranchii; 8. Ganoidei; 9. Protopteri; 10. Holocephali; 11. Plagiostomi.

Thursday, March 24.—Lecture II —Skeleton of Fishes; its chief varieties exemplify arrested stages of development of that of higher animals. Characters of the vertebræ of fishes; their varieties exemplify stages of development of the vertebral column. Intercalations of parts of the exoskeleton to form the median fins; various forms of the caudal fin; homocercal and heterocercal fishes; antiquity of the latter, and their predominance in the earlier fossiliferous deposits. Malocopterygian and Acanthopterygian fishes. Modifications of dorsal spines; Ichthyodorulites; lock-and-trigger spine of File-fishes; dentigerous spines of Siluroids or Sheat-fishes.

Saturday, March 26.—Lectures III. [and IV.]—Skull of Fishes; its modifications in cartilaginous and semi-osseous fishes exemplify stages of cranial development in higher animals. Skeleton of Lepidosiren. Bones of the head in osseous fishes; large proportional size of the skull, and its firm connexion with the trunk; its general form and manifold functions; prevalence of the squamous form of suture. Principal prominences and cavities of the skull; classification of its bones; those of the endoskeleton arranged in segments; the segments defined. Neural arches, with intercalated sense-capsules. Hæmal arches and appendages; their special modifications and denominations as the "palato-maxillary," "tympano-mandibular," "hyoidean," and "scapular arches." The splanchnic branchial arches. Modifications of the pectoral and ventral fins; their special and general homologies. Ichthyological abbreviations and formulæ of the fin-rays explained. Advantages of symbols in anatomical description.

Medical Times & Gazette.

SATURDAY, MARCH 19.

THE NEW CHARTER OF THE ROYAL COLLEGE OF PHYSICIANS.

We have been informed, on authority, that a Deputation from the College of Physicians, consisting of the President, two of the Censors, the Registrar, and others, has lately had an interview with Viscount Palmerston, the Home Secretary, upon the important subject of obtaining a new Charter for the College.

As the present Government promises to be one of action, it is very desirable that no means should be left untried to induce it to place the College of Physicians in the position which it ought to occupy if due regard be paid to the wants of the country and of the Medical Profession.

Nothing can be more anomalous than the present position of the College. It is, indeed, little more than a voluntary association of physicians. Charged, as it confessedly is, with the surveillance of the highest branch of the Medical Profession, it has no control beyond a distance of seven miles from London; and, even within that metropolitan district, its power is a mere *brutum fulmen*. Moreover, it is compelled, by Act of Parliament, to confer a licence upon persons wishing to practise outside the magic circle of seven miles from London, calling them extra-licentiates. These persons can compel the College to examine them for that extra licence; but the College has no power to oblige men practising in the country to come up and obtain its licence.

The consequence of these inadequate powers of the College is, that provincial physicians form a most motley group. There are among them licentiates of the College, extra licentiates, Fellows, men licensed by the Universities of Oxford and Cambridge, graduates of Scotch, Irish, and foreign Universities, and purchasers of Erlangen and other degrees.

Can it be matter of surprise that the great body of provincial physicians should be united by no common bond, by no principle of professional co-operation or interest, by no common object? The now vulgarised title of "doctor," obtained *quocunque modo*, is all that is deemed necessary to qualify a man to practise in what ought to be one of the most learned and dignified of professions!

By its proposed new Charter, which has been for some time before the Profession, the College gets rids of all that was formerly objectionable or illiberal in its internal government; and it claims the sole power of licensing physicians for England and Wales, and complete jurisdiction over them. It offers a year of grace to those now in practice, but not within its fold, that they may be enrolled in it without examination, and simply on the production of evidence of good character.

Is it not, we would ask, the duty of all physicians—nay, of all classes of medical men—to unite their efforts to place the College of Physicians in its right position? Let them send petitions to both Houses of Parliament, to the Home Office, and use what personal influence they can command to direct the attention of members of the Legislature to this subject.

A rightly constituted College of Physicians is an essential preliminary to any general measure of medical reform. But this object may be attained independently, and without wait-

ing for the settlement of that much-vexed question. Let us, then, all unite to procure for the College its new and much-needed Charter, to secure for physicians, whether in London or the provinces, a proper status and education.

At present, either of our footmen or grooms may purchase a degree, and set up as a physician; but he cannot, we are thankful to say, become an apothecary without a fair amount of education.

INCOME AND PROPERTY TAX.

This is the great question to be settled during the present Session of Parliament, and to the members of our Profession, it is, indeed, a most important question. The incomes of a very large number of surgeons in general practice do not exceed 300*l.* a year. This class of medical men suffers most severely from the direct taxes levied on the community, even excluding the income-tax. In country districts a horse and gig are indispensable for carrying on a practice even of the amount we have just stated. Here is a list of direct taxes paid by a country surgeon, whose income is 250*l.* per annum, as detailed by himself, in a letter to the *Times* newspaper:—

Horse	£1	8	9
Stable-boy	1	4	0
Gig	4	10	0
Ten per cent. thereon	0	14	3
Income-tax	7	5	6
	15	2	6

That is to say, one-sixteenth of his income goes to the Government for payment of direct taxes. To an alteration in the present Income Tax the present Government is irrevocably pledged; but whether full justice will be done to professional men in the forthcoming scheme of the Chancellor of the Exchequer is very doubtful, seeing the principles to which he is committed by his speeches in Parliament. Medical men will be satisfied with nothing less than the conversion of the present Income and Property Tax, as it is called,—though really it is an Income Tax,—into a *bonâ fide* Property Tax. Income, as shewn by Dr. Farr in his very able paper read before the Statistical Society in January last, is as much *produce* as the proceeds of a farm or any other concern. Now, everything that yields produce is property, consequently the professional man, though he has neither lands, nor capital in the form of cash, if he be in a position to make an income by the exercise of his profession, is in the possession of property,—his profession is property. This kind of property is designated by Dr. Farr "inherent" property; other kinds are termed, by the same high authority, "external" property. Actuaries and other practical men tell us that the worth of inherent property is as capable of valuation as that of external property: that the one, like the other, may be represented by a money capital. The worth of a professional man's "inherent" property whose income is 250*l.* a year, is far less than the worth of the landowner's "external" property which yields a yearly revenue of the same amount.

The State (to use again Dr. Farr's admirable paper) out of its revenues has to fulfil all its engagements with the public creditor; to protect national honour, life, and property; maintain its own existence; promote religion, education, science, culture, and art; redress violations of the laws of nations, secure its immortality, and transmit its life, as well as its glories, to new nations. Therefore, *every member of the community ought to contribute every year to the public expenditure in proportion to the amount of property in his possession during the year.* Such is the just principle of taxation. But a tax on income is not a tax levied in proportion to the amount of property in a man's possession during the year. The money A has vested in the funds is as much property in his possession, as is the money A receives during the year as interest for the same money. The sum which represents the worth of B's professional income, is as much in his possession, as is the income he draws yearly from the exercise of his profession. But, as B's inherent property is represented by a smaller sum than A's external property, though both yield the same annual income, it is clear, that to tax the two yearly at the same sum is to tax unequally the property in their possession respectively during the year. Again, the value of the same annual income varies very greatly according to the kind of external property from which it is derived, thus: A. has 33,333*l.* in Consols; from this he derives 1000*l.* a year; B. has 6500*l.* in Long Annuities, he, too, receives an annual income of 1000*l.*; yet how different the sum in possession of A. and B. during any given year. A. would, during the year, be in the possession of 34,333*l.*, B. of 7500*l.* The present Income Tax, therefore, is as far as possible from accordance with the true principle of taxation.

With nothing short of a just distribution of the taxation over the various classes of the country will intelligent men be satisfied. The present direct taxes are unpopular, because they are inequitably adjusted,—because they press most unfairly on some classes of the community. Whether Mr. Gladstone, whose ability none hesitates to admit, will be able to lay aside the various crotchets to which he has so often shewn himself the servant, and take large and just views of the question of direct taxation, and then be bold enough to frame a Budget on those views, remains to be proved. Our fears on the point are greater than our hopes; but of this there can be no doubt, that the extent of the change from the present most iniquitous Income-tax will ultimately be in direct proportion to the amount of pressure from without exercised on the Government; therefore, we say again, let our Professional brethren exert themselves.

In regard of this subject, we trust that the Petition framed by the Committee of the Provincial Medical and Surgical Association will be extensively adopted. It has evidently been drawn up with much care. Petitions on this model must be presented from every city and town in England and Scotland, and be signed by every practitioner of medicine in the United Kingdom.

The following is the Petition:—

"The humble Petition of the undersigned members of the Medical Profession practising in ————.

"This Petition showeth,—That your petitioners only derive from their professional exertions most uncertain and precarious incomes, and which of necessity cease under impaired health, in advanced life, and at death.

"That your Petitioners are for the most part married men with families, for whose education and present and future support, under the contingencies of illness, advanced age, and death, they have to provide by these uncertain and precarious incomes.

"That your petitioners feel it a great grievance, and cannot but consider it most unjust, that their professional incomes, thus precarious, should be taxed at the same rate as incomes derived from realised property, which are not affected by the health or age of the possessors, and which descend to their families at their death.

"That your petitioners respectfully submit, that the unequal pressure of the assessed taxes, the inquisitorial nature of the Income-tax, and its assessment on the maximum amount of the last year's receipts, are felt to be extremely oppressive and unfair towards them, and severely prejudicial to their interests.

"That your petitioners, therefore humbly pray, that, in

reconsidering the subject of general taxation, your honourable House will so deal with this impost, if it be indispensable to retain it, as to make it press less grievously upon them, in common with all others depending upon temporary and life incomes."

SANITARY REFORM.

The constitution of the Board of Health, the soundness of its crotchets, the wisdom of its acts, its meddlings with matters beyond its province, its exaggerations, and its quarrels, must always be separated in the mind from the abstract question of Sanitary Reform. Dr. Southwood Smith's opinions about the generation of cholera and small-pox from the same decaying mass, and Mr. Chadwick's crotchet of four inch pipes, and the alleged interested reports of Inspectors, whose occupation would be gone if sanitary measures were not needed, are matters in no way necessarily connected directly with the subject of public health; but the suspicion of their existence is a sad impediment to the progress of the cause, and so we may lament over them. But, if Dr. Southwood Smith were defunct, and Mr. Chadwick's much-loved pipes broken, and the Inspectors deposed, want of drainage, short water supply, imperfect ventilation, and overcrowding, would still exist, and still have as their constant concomitants disease and death. Let men breathe an atmosphere loaded with particles of decaying animal matter, and be packed by the dozen in rooms only large enough to be the dwelling-place of one, and scrofula and small-pox, and cholera and typhus fever, will carry off a large proportion of them, and drunkenness and debauchery will prevail among the remainder. These are facts with which every medical man's experience makes him familiar, and the existence of which is, we all know, independent of Orders in Council and Provisional Orders of General and Local Boards, of Dr. Southwood Smith, Mr. Chadwick, and their Inspectors. The Health of Towns Act was passed in 1848, and it was to continue in force for five years. The President of the Board of Health stated in Parliament last week, that the constitution of the Board is to be amended, and that certain alterations are to be effected in the Act itself.

In making these alterations, we trust that the Government will keep in sight the one great object of a Board of Health, viz., the prevention of disease; and that they will, consequently, infuse into the newly-constituted Board a larger amount of the medical element than it now contains. The decisions of a Central Board, constituted as we have often suggested, would carry much greater weight than that of any body of laymen, however high their station. The advantage of a Health Officer has been at length appreciated in the City of London; the value set on Mr. Simon's services being indicated by the fact, that the Common Council have increased his salary from 500*l.* to 800*l.* per annum.

Again, the propriety of cleansing, etc., a town must be decided by those who have no great money interest in the property of the town, or the thing will never be done. Those for whose especial benefit the purification is undertaken—the dwellers in the lanes and alleys—have no voice in the matter; those who have to pay the money see no direct advantage to accrue to themselves for their outlay. They will not pay money for that which brings them no return. Leave the decision as to whether the town shall be placed in a good sanitary state to the great body of ratepayers of the same town, and the town will be as dirty fifty years hence as it is now. Tell the inhabitants of Cologne, with its

"Four and twenty stinks, all well-defined,"

that a rate must be levied on the householders to get rid of the filth, and lo! nine of every ten of the dwellers in that "body and soul stinking town" would vow they smelled only the odours of their own fragrant distillations.

To appoint medical men resident in small towns to be the inspectors of those towns would be to impose on them a most unpleasant duty—a duty which would ever and anon bring them into the most disagreeable collision with those between whom and themselves there should be the most kindly feeling—viz., their patients. Mr. A is a holder of much house property in the town of ——. Two or three courts badly drained, and without any water supply, belong to him. Mr. B, the surgeon, attends Mr. A. They are the best of friends. Let Mr. B report that Mr. A must submit to the payment of a heavy rate for the drainage and water supply of those cottages, which have "always done very well without them," and where is Mr. B's friend and patient? Whatever powers over the expenditure, choice of plans, etc., may be vested in the local boards, we are firmly convinced that the propriety of applying the Act to particular towns and localities must be vested in a Central Board; and that the inspectors, who are to report on the sanitary condition of a town, must be men unconnected by pecuniary interest with that town. With Government it rests to constitute a Board, the decision of which shall have such moral weight as to bear down all opposition from interested parties. Five years since they might have pleaded want of experience; now, experiments have been tried. The necessity for a Health of Towns Act, *for a really potent Central Board*, for the presence of *more than one* medical man at that Board, and for *medical inspectors* of towns, unconnected with the towns they are to inspect,—the necessity, we say, for all these is beyond question.

In our last Number was a letter on the subject of Sanitary Reform, the author of which urges on the Profession the propriety of at once establishing a Society, the objects of which should be:—

"1st. To enlighten the people by means of practical tracts and lectures, and a journal of public health.

"2ndly. To convict, by coroner's jury, those who are guilty of killing their tenants or neighbours by cesspool and sewer air, and then to enforce, by law, the liability of the landlord (as of the Railway Company) to pay a penalty to the survivors.

"3rdly. To petition Parliament to apply the Health Act to every Union in the empire, and to give powers (in the case of killing men as well as pheasants,) for enforcing the just penalty."

In furtherance of the first of these objects, the very able writer of that letter has himself issued some excellent letters (a) addressed to the working classes, on the health of themselves and families. These letters are published at a very low price for gratuitous distribution. We are satisfied that much good may be effected in this way. In spite of all medical men, and Parliamentary Committees, and the Board of Health, have done, the great mass of the people are yet ignorant of the fact, that a very considerable proportion of the deaths that occur annually in this country are from diseases that might be prevented by a due regard to sanitary measures. Our last Number announced the death of a young physician from poison, imbibed from a female who was taken in labour while suffering from a disease, apparently produced by the constant inhalation of the effluvia arising from the great open Ranelagh Sewer, which runs close by the house in which she dwelt.

Like the inhabitants of the Flying Island, the British public soon grow oblivious, unless some more wakeful than them-

(a) "To the Working Classes of England, on the Health of themselves and Families." Mackintosh, Great New-street, London.

selves from time to time break in upon their repose. Letters, such as those we have just alluded to, are the stimulus suited to enlighten the ignorant and arouse the dreamers.

ENFRANCHISEMENT OF THE UNIVERSITY OF LONDON.

DEPUTATION TO THE EARL OF ABERDEEN.

On Wednesday a numerous and influential Deputation, consisting principally of members of the learned professions, waited upon the Earl of Aberdeen, at his official residence in Downing-street, for the purpose of submitting to His Lordship the claims of the University of London to representation in Parliament. Among those present were the following medical gentlemen:—T. Snow Beck, M.D., one of the Honorary Secretaries; M. Baines, M.D.; F. W. Mackenzie, M.D.; J. Cooper Foster, M.B. Senate—Sir James Clarke, P. M. Roget, M.D., E. Billing, M.D., A. Tweedie, M.D. Colleges: University—T. Hewitt Key, William Sharpey, M.D., Alex. Williamson, Ph. D., professors; R. G. Latham, M.D., Emeritus. King's College—W. Guy, M.D., professor; Geo. Johnson, M.D. Lond., assistant-physician to Hospital, T. Hubert Barker, M.D. Lond., deputed. Birmingham Sydenham College—J. Russell, M.D. Lond., professor. Bristol Medical School—J. G. Swayne, M.D. Lond., professor. Hull School of Medicine—R. M. Craven, jun., Esq., professor. Liverpool School of Medicine—Birkbeck Nevins, M.D. Lond., Professor. London Hospital—W. J. Little, M.D., professor; T. Curling, Esq., professor; H. B. Letheby, M.B. Lond., professor. Middlesex Hospital—A. P. Stewart, M.D., professor; S. Goodfellow, M.D. Lond., professor. St. George's Hospital—J. H. Wilson, M.D., senior physician. School adjoining St. George's—F. Sibson, M.D. Lond., professor. Charing-cross Hospital—W. D. Chowne, M.D., professor; E. Smith, M.D., LL.B. Lond., professor. St. Thomas's Hospital—R. Grainger, Esq., professor; J. S. Bristowe, M.D. Lond., professor. St. Bartholomew's Hospital—P. Black, M.D., resident warden; W. S. Savory, M.B. Lond., tutor. Westminster Hospital—G. Hamilton Roe, M.D., professor; C. B. Radcliffe, M.D. Lond., professor. Guy's Hospital—Thomas Addison, M.D., professor; W. W. Gull, M.D. Lond., professor. Newcastle-on-Tyne, Neville Hall—G. Y. Heath, M.B. Lond., professor. School of Practical Science—F. Robinson, M.D., deputed. Apothecaries' Hall—R. H. Semple, M.D., examiner. Provincial Medical and Surgical Association—John Forbes, M.B., president; John Propert, Esq., president. St. Mary's Hospital—F. Sibson, M.D. Lond., physician; S. Lane, Esq., surgeon. Graduates' Committee—J. Storrar, M.D. Lond., chairman. R. Barnes, M.D. Lond., hon. secretary.

His Lordship having briefly apologised for the absence of Lord John Russell, who had left town,

Mr. J. Heywood, M.P., introduced the Deputation, and explained its object. He said, the present application was made in no unfriendly spirit to the old colleges, to which the London University was rather an advantage than otherwise, in some cases preparing students for them, and in others appointing professors from among their members. Besides this, it included among its members the major portion of the Medical Profession in London and the large towns; and it should be remembered that at present the Medical Profession could not be said to be represented in the House of Commons. It was quite right that the masses of the community should have their representative; but His Lordship would also admit, that the educated and intelligent portion of the people had also a claim for consideration in any scheme for remodelling the representation. Mr. Heywood concluded by introducing

C. J. Foster, Esq., LL.D., who read the following memorial:—"My Lord,—Your Lordship has before you a Deputation, charged to represent the claims of the University of London. It is composed of senators of the University, heads or influential members of sixteen metropolitan and seventeen provincial colleges, officers of the Graduates' Committee, principals of endowed and private schools, whose courses of tuition have been influenced by the University curriculum, representatives of important medical associations in town and country, and some Members of the Legislature, who kindly thus testify their interest in our cause. We are charged to express the hope, that the Government may deem it right to take measures for satisfying the claim of the University of London to be represented by two Members in the House of Commons. We are encouraged in expressing it by the recollection that we are asking no new thing. We do not seek that any new element should, for our sakes, be introduced into the representative system. University representation is an admitted fact. It is long established; it has been uninterrupted; it is unassailed. What we ask, therefore, only amounts to this,—that the Government should not be a party to the infliction of a serious injury upon our University, by refusing to it the application of this constitutional principle. The decision which the Legislature has already made for us, relieves us from the necessity of troubling your Lordship upon the abstract principle of university representation; or of noticing arguments—unnecessary to our case—in favour of the enfranchisement of learned bodies generally—which all present important differences from what is understood by a university. but it may be desirable that we should state briefly what the University of London really is. Her Majesty was pleased to found the University, 'deeming it to be the duty of her Royal office for the promotion of religion and morality, to hold forth to all classes and denominations of her faithful subjects, without any distinction whatever, an encouragement for pursuing a regular and liberal course of education.' And it surely justifies the reasonings of those who so advised the Crown, that within fifteen years it has connected with itself, without one important exception out of the pale of the Established Church, all the theological, all the medical, and all the general collegiate institutions, not only in the Metropolis, but in the United Kingdom, and even in the colonies. It can, and it in fact does, receive candidates for its degrees in arts, from the theological seminaries throughout the kingdom, of the Baptists, Independents, Roman Catholics, Unitarians, and Wesleyans; from two important schools connected with the Established Church; and lately from the University of Cambridge. It receives candidates for its degrees in medicine from all the London hospitals which have schools attached to them, from all the most important medical schools and infirmaries in England and Ireland, from the Universities of Edinburgh and Glasgow, and from the colonial establishments of Canada, Malta, and the East Indies. The entire number of these institutionss is now 100; being 32 in theology and arts, and 68 in medicine; and the number may increase as existing institutions are improved or new ones founded. Not only are the interests combined in the University thus extensive and various; it is important, also, to notice the highly beneficial influence of the connexion. It is not too much to assert, that the University has stimulated a demand among all these bodies for a more general, and, in some respects, a higher education, than had at one time extensively satisfied them. It is believed that the standard of medical qualification throughout the country has been raised by the University of London. And some religious bodies have avowedly founded and affiliated colleges, and others are known to have reconsidered their arrangements, in order to add literary acquirements to their deservedly esteemed theological training. Your Lordship will appreciate the public importance of such a University as we are describing. We need not refer formally to the princely wealth of our hospitals, nor to the gratifying condition of our medical education, that it attains perfection by the relief of human suffering. We shall be content to find our Bodleian Library in the hospital wards of London. The influence of our theological colleges is attested by facts peculiar to themselves. The endowments of our Roman Catholic brethren are largely unprotected by law. The Dissenting Colleges rely mainly on annual voluntary subscriptions. Thus circumstanced, both have been able through the vicissitudes of the last century, to maintain, free of expense, the entire body of their students, and to give them the teaching of men whose names are still honoured beyond their own denominations. In other points, my Lord, the analogy is close between that which our University is, and that which Oxford and Cambridge were, and to which state the late commissions recommend their restoration. The University of London is secured against usurpation from the colleges by its Metropolitan seat, and still more by their diversities of object and religious faith than by their local dispersion. Our colleges really do teach. Our foundations really are eleemosynary; while the necessity of visitatorial

supervision is largely superseded by the annual publication of their accounts. We estimate our students at nearly 5,000 annually, of whom nearly half are medical. We do not trace an arrival of candidates for graduation from the Colleges generally prior to 1851 (the affiliations having been progressive, and some time necessarily being required for the adaptation to the London curriculum of a four or six years' course of study.) We submit it, therefore, as a strong fact, that our matriculation entries for the last three years have averaged a number equalling, within a few units, the graduations at Trinity College, Dublin. We have the authority of the Senate for regarding this as no measure of our probable future increase. It would seem, therefore, my Lord, upon these facts, and without entering into reflections somewhat obvious, or details too minute for a brief interview, that we bring the University of London closely within the conditions set forth in King James's Charter to the University of Oxford:—'It seems, therefore, to be worth while and necessary that the said University (which abounds in a multitude of men endowed with piety, wisdom, learning, and integrity,) and in which all branches of science, both divine and human, and likewise all the liberal arts, have been cultivated and professed, shall, for the common advantage of the whole State, as well as of the University aforesaid, and of each of the colleges, halls, and hostels aforesaid, have burgesses in Parliament, who shall make known from time to time the true state of the said University, and of each college, hall, and hostel therein, so that no statute or general Act may tend to the prejudice or injury of those institutions, or of any one of them in particular, through want of just and proper knowledge and information obtained on that subject.' My Lord, it is our duty now to present the claim of the University, not merely on the ground of analogy and precedent, but also to say,—and we would respectfully draw your Lordship's attention to this point as having brought to us a more undivided sympathy than any other,—that its concession is to be regarded as carrying out the design with which the University was, in fact, founded. Referring back to the debates on Mr. G. Wood's Bill, to the address of the House of Commons on the motion of Mr. Tooke, then treasurer of what is now University College, to the communications between that body and Lord Melbourne's Government, and to the subsequent acts of the Legislature, and looking to the recently-recorded declarations of a large number of the College, we have their unanimous testimony that the University was offered to them and accepted, upon the faith that they were not to derive from it simply a titular degree, but a degree carrying with it all those consequences (not ecclesiastical) which are implied by the possession of a degree elsewhere. In respect of some civil privileges, by no means without importance in themselves, and more valuable as marking the principle, we have already been placed upon an equal footing with the ancient universities. We refer to the Attorneys' and Solicitors' Act, 1 Vict. c. 36, the Grammar School Act, 3 and 4 Vict. c. 77, and the Militia Act of last session. But it is undoubtedly and strongly felt, my Lord—and we have the happiness to know that the feeling is largely shared in those universities themselves, that this purpose must remain frustrated so long as we are not admitted to the elective franchise. It has been our duty to submit this matter to former administrations, and we received from Lord Derby the distinct assurance, that in the opinion of his Government there was no claim of the kind which could come into competition with that of the University of London. Its concession was deferred partly because our constituency was then supposed to be small and inaccessible, but mainly because we were not then incorporated into the University. We are happy to state to your Lordship our confident expectation, that this last objection is in prospect of immediate removal. The Senate, many of the Colleges, and the graduates, have anxiously considered the means of effecting an incorporation, and we believe we may now state, that there are no difficulties remaining which are of a nature to retard a settlement. With regard to the other objection, so much of it as has not been removed by time was founded on misapprehension. Nearly half of our graduates permanently reside within twenty miles of the Post Office; and we have experienced that no distance from the Metropolis renders it practically inaccessible to the great body. For our present and probable numbers, we may be permitted to refer to the remarkable document lately presented by the Senate in another matter of grave importance to the University, and to say that our constituency, if formed on the analogy of our sister universities, is already larger than those of twenty-five boroughs returning two Members to Parliament, or than that proposed for Dublin University when its second Member was restored by the Reform Bill. Looking to the time which must necessarily elapse before we can exercise the rights we ask, even if immediately conferred by the Legislature, and to our numbers constantly growing meanwhile, we hope that our application will appear far from premature. In acceding to it, your Lordship will be satisfying claims which have been recognised by every succeeding Government since the foundation of the University, and will be creating a constituency based upon the sacred principle of religious freedom."

The claim of the University was briefly supported by Mr. Thornely, M.P.; Dr. Milner, Cantab.; Dr. Billing and Dr. Roget, members of the Senate; Dr. Harris, president of New College; Dr. Angus, of Stepney College; Dr. Wilson, senior physician of St. George's Hospital; and Dr. Black, resident warden to, and deputed from, St. Bartholomew's Hospital.

The Earl of Aberdeen said: I have no hesitation in acknowledging the very strong claims you have urged for the favourable consideration of the object you have in view; and I readily admit that the constituency afforded by the University of London is such a one as it would be most agreeable to the Government to organize. You will not, perhaps, expect me to give a final answer to-day; but I assure you that, so far from throwing cold water on the subject,—as was hinted at by one of the Deputation,—I do, in the most sincere and warmest manner possible, assure you that the matter will be taken under the most serious consideration of the Government. I do not say this as mere words of course, but I beg you to believe that such will positively be the case.

This declaration of the Prime Minister, and the marked and emphatic manner in which it was delivered by His Lordship, elicited a loud cheer from the Deputation, which, after the usual courtesies, withdrew.

MEMOIR OF DR. GEORGE GREGORY.

The following memoir of Dr. George Gregory was read by Mr. Hodgson, the late President of the Medico-Chirurgical Society, at the anniversary meeting:—

Dr. George Gregory was the second son of the Rev. William Gregory, of Canterbury. He was born in Canterbury on the 16th of August, 1790. On his father's side, Dr. Gregory's relations have long been distinguished in Scotland. The Rev. William Gregory was the second son of Dr. John Gregory, author of "A Father's Legacy to his Daughters;" and his grandfather, Dr. James Gregory, Professor of Medicine in the University of Aberdeen, was descended directly from the distinguished mathematician, Dr. James Gregory, the inventor of the Gregorian telescope, and the intimate friend of Sir Isaac Newton.

Dr. George Gregory's early education was received at the King's-school in Canterbury. Owing to the death of his father, in January, 1803, he was most kindly welcomed, in the autumn of that year, as an inmate in the house of his uncle, Dr. James Gregory, of Edinburgh, the author of the "Conspectus Medicinæ," then in great repute as a physician in that city. Here he attended several of the classes in the University, and, among them, that of moral philosophy, conducted by the celebrated Dugald Stewart. Having selected medicine as his Profession, he commenced his attendance on the medical classes in Edinburgh in the winter of 1806, and in 1809 he continued his studies in London, under the immediate superintendence and direction of Dr. Baillie. This eminent physician had contracted in early life an intimate friendship with Dr. Gregory's father at Oxford, of which he gave substantial proof in the kind and considerate interest and assistance which he then and ever afterwards gave to the welfare of his son. At this time Dr. Gregory attended the anatomical demonstrations of Sir Benjamin Brodie, in Windmill-street, and also one of the earliest courses of lectures

on chemistry delivered by Mr. Brande. In October, 1809, he attended the first meeting of the Westminster Medical Society, and for many years took a leading part in its proceedings, filling all the offices from Secretary to President. Dr. Gregory went to Edinburgh in 1811; and, in company with his cousin, Dr. William Pulteney Alison, now Professor of Medicine in the University of Edinburgh, and Dr. Holland, of London, he prepared for his examination; and in the same year he received his degree of doctor of medicine.

On the 2nd of July, 1812, as a preliminary step to entering the army, he took his diploma as a member of the Royal College of Surgeons in London, and soon afterwards he was gazetted as hospital-assistant to the forces. In 1813, he was sent to the Mediterranean, and served for three years with different corps in Sicily and Italy. During this period his love of travel induced him to visit with eagerness all the scenes and objects of interest within his reach. In April, 1814, he was appointed Resident Medical Officer with the expedition against Genoa, under Lord William Bentinck, and witnessed the attack on the forts which led to the capitulation of the town and its evacuation by the French, with the honours of war, on the 21st of the month.

In 1816 he returned to England, passed his examination at the Royal College of Physicians, and settled in London. In February, 1817, he was made Physician to St. George's and St. James's Dispensary, which appointment he resigned in 1829, and he has ever taken a warm interest in the prosperity of that Institution. In May, 1829, he was appointed consulting Physician to that Institution, and acted as its Treasurer for twelve years, and up to the time of his death. In 1818 he began to give lectures on the practice of physic. In 1820 he published the first edition of his "Elements of the Theory and Practice of Medicine," a work which was specially recommended to the medical officers of the army by the head of their department, and which still retains its reputation. It has passed through six editions in this country, and two in America.

In 1821, he became a Fellow of this Society; in 1825, he was elected one of its Secretaries, a post which he filled for two years; and in 1849-50 he was a member of the Council. He has contributed eight papers to our Transactions, four of which relate to small-pox and vaccination.

In March, 1822, he was elected Physician to the Small-pox and Vaccination Hospital, an appointment in which he took the most active interest, and which he held at the time of his decease. His connexion with this Institution furnished him with materials for his numerous writings on the diseases to which it is devoted.

In 1842 he was appointed lecturer on the exanthemata at (the Medical and Surgical College of) St. Thomas's Hospital, and he continued this course, which consisted of sixteen or eighteen lectures, for ten consecutive years. He also delivered an oration at one of the *conversaziones* at that hospital, and twice he opened the medical session with an introductory address. Here, as elsewhere, his clear, curt, and yet comprehensive style of teaching gave great satisfaction to his pupils.

In 1843 he published his "Lectures on the Eruptive Fevers," which was republished in New York, in 1851, with additions by himself, being edited by Dr. Bulkeley.

His career now began to draw to a close. For some time previous to the autumn of 1851, he had warnings that his heart was not in a healthy condition. At this season, he suffered from periosteal rheumatism and unmistakable cardiac disease. In March, 1852, while walking home from the Small-pox Hospital, he was suddenly affected with loss of vision in the left eye and slight loss of power, with numbness in the left hand and arm, symptoms which alarmed him at the time, but which soon passed off. His cardiac disease had now manifestly increased, as shown by a very irregular and intermitting pulse, violent palpitation and dyspnœa, and loud grating "bruit." On the 8th April he experienced a distinct attack of "angina pectoris," characterized by sudden, acute, and terrifying pain at the base of the heart. In October he suffered from an attack of pneumonia in the left lung. From this time he had paroxysms of spasmodic dyspnœa and angina pectoris, which, as they increased in frequency and severity, became most alarming and painful, and seemed immediately to threaten his existence. Towards the end of November anasarca set in, and steadily increased, which added much to his sufferings. On the 25th January, 1853, after taking his breakfast, he suddenly and quietly expired.

A *post-mortem* examination of his body revealed great enlargement of his heart, with ossification of the aortic valves and coronary arteries.

Those best acquainted with the subject of this sketch will readily call to mind the natural enthusiasm of his character, which so obviously displayed itself in all the relations of life. As a man and a member of our Profession his actions were marked by honour, candour, and integrity. Though not possessed of unbounded confidence in the effects of medicines, his acute perception enabled him at once to see the nature of a disease brought before him, and his treatment was characterised by energy and decision.

That he was an active labourer in the field of medical science is evinced by his numerous publications. In addition to the two larger works above referred to, he published about 212 papers, consisting of articles in various medical journals, pamphlets, reviews, essays, lectures, reports of cases, and other miscellaneous writings. Dr. Gregory was a good classic, an excellent linguist, and a great lover of music. His store of general information, his fund of humour, his kind and lively manner, and his ready and pleasing mode of communicating his ideas, whether publicly or in private life, will long be retained in the memories of those with whom he associated. (a)

MEMOIR OF DR. CHARLESWORTH.

We lately announced the death of this distinguished and public-spirited gentleman. A good constitution at last gave way to over-exertion of body and mind in the cause of humanity and the public, he having never spared himself where attention to the poor or the duties of his Profession called for a sacrifice, which occasions became more and more urgent as he advanced in years and well-attained celebrity. Though warned by one or two previous attacks, he persevered in taking journeys of great length and labour at all hours, to which even a youthful constitution would not have been equal, until paralysis, not to be contended with, checked his career of utility, and finally closed this scene for ever. His perseverance and punctuality were beyond belief; so much so, that the late General Manners, of Bloxholme, good-humouredly observed, that he knew the exact hour of the day by the appearance of his physician. At the hospital he was equally punctual and observant of all the cases, both of out and in-patients, and equally regular at the Boards. At the Lincoln Dispensary his labours were of the most trying description: he was most punctual and attentive there, and never spared himself, in any weather, even in his advanced years, laboriously going to the dwellings of the home patients through the whole range of Lincoln, from Bar-gates to the remote Newport—a labour which very severely tests the goodwill even of a youthful dispenser. He felt the deepest interest in the poor whom he visited, and they knew it well; they were always delighted to see him, and he used often to dwell upon the remarkable improvements observed in late years in the cleanliness of the dwellings of the industrious classes. His own residence was also a medical institution, frankly and freely opened to the indigent and distressed. In his last illness, when urged by a friend to relieve his mind by formally renouncing further practice, he said, "That I am ready to do, but I cannot, and will not, give up attending poor people who apply to me." He was a most liberal practitioner, and indeed seemed to aim at finding excuses for not accepting the proper remuneration, which actually made some of his more intimate friends almost afraid to consult him. While the science of medicine lasts, he will be remembered as the great founder of the new aspect taken by institutions for the insane. No urgency prevented his exertions in the cause of the Medical Benevolent Society; and he took much trouble and acted with great liberality in originating a medical library to be kept at the Lincoln Dispensary, but at last good-humouredly confessed that the unexpected calls and avocations of the Profession made them too irregular a body for any systematic object of that sort. It might be supposed that Dr.

(a) This memoir of Dr. Gregory was supplied by his relative, Mr. John Gregory Forbes, of Devonport-street, Hyde-park.

Charlesworth's professional engagements would have been amply sufficient occupation, but his extreme punctuality, energy, and decision of character, enabled him to find hours where others could not have found minutes. When first the pavement improvements of Lincoln were commenced, he published a pamphlet, "Health and Cleanliness," which created an outcry of astonishment for what were considered its unreasonable demands. The pamphlet is, however, an interesting curiosity, as showing that there is scarcely a single suggestion which has not been carried into full effect. During the cholera, he laboured incessantly from house to house, and that awful visitation has, through men like him, produced ameliorations of immense national value. His personal courage was most determined: he was heard to observe, "The cholera is not contagious; for on its first appearance in Lincoln, at a low lodging-house, I had the man convulsed in my arms, and breathing upon me, for a quarter of an hour; and I have been sufficiently near it in other cases." His private amusements were principally gardening and music, and, had he continued to cultivate the latter, he would have been a very superior musician. In gardening he was an accomplished and successful amateur, and occasionally forwarded contributions on the subject, and found very great pleasure in distributing among his friends choice specimens for cultivation. There never lived a more hospitable or kind-hearted man; his friends and acquaintances of every grade in society found a ready welcome at his house. He might have died very rich, but his indifference to money, his liberality on all occasions, public and private, and the severe scrupulosity with which he withdrew from his attendance the moment he thought it no longer necessary, though sometimes to the dissatisfaction of his patients, were not likely to lead to the accumulation of wealth. His first medical education was with the celebrated Dr. Harrison, of Horncastle, and afterwards at Edinburgh. As no man was ever more liberal of praise to officers of public institutions who did their duty, few were more strict martinets, or less disposed to overlook any attempt at making a public duty a sinecure or job. He is now gone, and all will acknowledge that he acted on principle, even when th y were least satisfied with the steps which he adopted. Dr. Charlesworth was an Honorary Vice-President of the County Hospital, the Lincoln Lunatic Asylum, and the General Dispensary; he was Trustee of the Savings' Bank, and indeed received every compliment of that nature that could be offered in acknowledgment of his public services. Dr. Charlesworth married Susan, only child of Dr. R. Rockliffe, of Horncastle. Dr. Charlesworth's father was the Rev. John Charlesworth, A.M., formerly Fellow of Trinity College, Cambridge, and subsequently Rector of Ossington, Notts. The Doctor's grandfather was of the Medical Profession, of a family long resident in Nottinghamshire, but originally of Charlesworth, in Derbyshire.

MEMOIR OF M. ORFILA.

M. Orfila, the eminent physican and toxicologist, died in Paris on Saturday, after a severe illness, aged seventy. He was by birth a Spaniard, but was naturalised in France in the early part of the reign of Louis Philippe. In 1805 M. Orfila went to sea in a merchant-vessel, and it was intended by his friends that he should enter the navy, but he had already a strong inclination for the Medical Profession, and suddenly abandoned the sea and went to Valencia to study medicine. As a student he greatly distinguished himself, and carried off the first prize in physics and chemistry. A favourable report having been made of his studies to the Junta of Barcelona, that body resolved to send him to Paris, to study the natural sciences, and a sum of 1,500f. per annum was voted to him for that purpose. He went to Paris in 1807, and had hardly been there ten months when war broke out between France and Spain. He was thus deprived of pecuniary resources for continuing his studies, but he had fortunately an uncle established at Marseilles, who agreed to provide him with 1,500f. per annum until he should obtain the diploma of Doctor in Medicine, when this allowance was to cease. M. Orfila passed a brilliant examination, and obtained his diploma. Having no longer any funds at his command, he opened a course of lectures in chemistry, which was well attended, and furnished him with the means of living. Some of the most eminent men of the present day were among his pupils; among them may be mentioned M. Jules Cloquet, M. Beclard, sen., and M. Edwards. The reputation of M. Orfila continued to increase, and, in 1816, he was appointed one of the physicians of Louis XVIII. He was next elected a Professor of the Faculty of Legal Medicine, and, in 1823, he was chosen to fill the Chair of Chemistry. He had already been elected a member of the Academy of Medicine. The Revolution of 1830 opened to M. Orfila a new era of distinctions. He was successively elected Dean of the Faculty, member of the Council-General of Hospitals, and member of the Council-General of the Department. After he had received his letters of naturalisation he was appointed a member of the Council of Public Instruction, and was successively named chevalier and officer and commander of the Legion of Honour. Most traders are aware of the importance attached to the opinions of M. Orfila, in cases of legal medicine. In cases of poisoning, where much depended on the medical evidence, he was invariably called upon by the Courts of Assize. His evidence in the Lafarge case and others created great sensation, and had a decided influence on the juries. The scientific reputation of M. Orfila may be said to have commenced with his "Treatise on Poisons; or, General Toxicology." The next works published by him, which acquired European reputation, were the "Elements of Legal Medicine" and "Lessons on Legal Medicine," which went through several editions; he was also the author of many other works of almost equal celebrity. We may also mention the publication, some years ago, of his Lectures on Organic Chemistry, in the pages of this journal. During the whole of the reign of Louis Philippe, M. Orfila remained at the head of the Faculty of Medicine, but after the revolution of February the Provisional Government revoked his functions. In the course of his researches into the action of poisons M. Orfila performed numerous experiments with animals, some of which, from the great suffering that they occasioned, induced a belief among persons who were not personally acquainted with him that his nature was cruel. This, however, was very far from being the case. He was humane and benevolent, and it was with great pain to himself that he was compelled, in order to make science useful to his fellow-creatures, to perform some of these experiments. In the celebrated Lafarge case, M. Raspail, who was opposed to him, disputed with great energy most of his statements, but without effect; and subsequently the opinion expressed by M. Orfila in opposition to that of M. Raspail, as to the absorption of poisons by the human body after interment, by contact with the earth, to such an extent as to reveal the presence of a quantity which would lead to a supposition that it had been administered during life, has been confirmed by most of the eminent men who have been examined on such questions before Courts of Assize. M. Orfila suffered physically for some time before his death, and had been long a severe mental sufferer from the affliction caused by the illness of his son, who had become epileptic, and so affected in mind, that it was found necessary to place him in a maison de santé.

M. Orfila has bequeathed a large scientific Museum to the town of Angers, a place for which he entertained a great affection; and he has also left 120,000 fr. to the Academy of Medicine, to found scientific prizes.

REVIEWS.

Lectures on the Nature and Treatment of Fever. By D. J. Corrigan, M.D.T.C.D., M.R.I.A., Physician in Ordinary to the Queen in Ireland, Physician to the Hardwicke Fever Hospital, etc., etc. 8vo. Pp. 104. Dublin: Fannin and Co. 1853.

Ireland affords the most ample opportunities for the study of the natural history, pathology, and treatment of typhus fever. This disease has been for centuries endemic in the Sister Island, and from time to time it breaks forth with varying degrees of intensity in an epidemic form. As physician to the Hardwicke Hospital, Dr. Corrigan has long enjoyed an excellent field of observation. The present *brochure* embodies the substance of lectures delivered *en clinique*, and which have in part appeared at intervals in some of our own former Numbers, in the *London Medical Gazette*, and in the *Dublin Hospital Gazette*. The

work is chiefly to be considered as containing the results and opinions collected by this observer in his own practice, and we need not say how much anything emanating from the pen of Dr. Corrigan deserves the attention of the student and practitioner. To embody the results of other inquiries, or to give even a brief sketch of any of the great Irish epidemics, would involve a much larger amount of literary labour than has been bestowed on the present work, and in the end it may be doubted whether a volume or volumes of the requisite dimensions would be found so useful as a guide in practice. We may here, however, remark, that a classical work, such as we have indicated, embodying such materials as the reports of Cheyne and Barker, and other writers of that period, the researches of Stokes and Graves, and Wilde's collected reports of the last great epidemic, is still a great desideratum.

Dr. Corrigan regards fever as a primary disease of function, and in his early pages will be found several cases which he thinks bears out this view; in these cases no anatomical lesions were discoverable *post mortem* when typhus existed during life in the most extreme and marked forms. The following extract exhibits the author's views very forcibly:—

"The conclusion, then, at which we must arrive is, that fever, or the aggregation of functional derangements, to which we give the name of fever, is not dependent on any structural lesion whatever; but if it be not dependent on any structural lesion,—if no structural lesion be necessarily present,—if even, more than this, death will take place without any structural lesion whatever, the conclusion is inevitable, that fever is to be considered as a primary disease of function, having an existence independent of, and capable of proving fatal without any local or structural lesion."

These views agree with those of the majority of the Irish observers, and are supported by the results of *post-mortem* examination, as all who have had an opportunity of making such examinations can testify. Abandoning all attempts at definition, and all hypothetical speculations as to the nature and essence of fever, Dr. Corrigan proceeds to study the phenomena presented by the disease. The following observations well deserve attention:—

"Each instance or case of fever," says our author, "will derive its distinguishing character from the function which appears to present the most marked deviation from health. Although it will hence follow that a definition of fever cannot be completed, still a most useful and practical comprehension of it, including its varieties, may be attained. All cases of fever will concur in this, that all are characterised by simultaneous disturbance of most of the great primary vital functions. The circulation is not much disturbed in one case; but then there is great disturbance of the function of innervation. In a second case, the cerebral system and intellect are scarcely at all disturbed, but the circulation sinks rapidly. In a third case, the function of nutrition, including secretion and excretion, is arrested, or unduly excited; while, in a fourth, the nervous, circulatory, and nutritive functions may be all overwhelmed together. Not only the proportionate degrees, but the order in which these functions are deranged, will vary. Thus, although it is evident that we cannot construct any definition that would include all these varieties, we can recognise in this analysis the foundation of that loose but really useful division of fever into brain fever, nervous fever, gastric or bilious fever, typhus fever, each case deriving its specific name from the lesion of the function which is most prominently attacked."

The chief varieties of typhus are then briefly described. Two forms pre-eminently demand attention; that with only slight initial phenomena, but with a terribly rapid, fatal termination. No case requires more care and watchfulness at the hands of the practitioner. In the second form the disease is more insidious, but scarcely less fatal. A patient thus affected may be several days ill without feeling it necessary to seek medical advice, and yet such a case may ultimately present the most aggravated phenomena of typhus.

Our author dwells much and justly on the characters of the pulse, the presence or absence of thirst, the state of the urine, and of the skin. The remarks under these several heads will be found excellent and judicious. Sleep is one of the most important considerations in typhus, the want of sleep often indicating a highly deranged condition of the cerebro-spinal function. "If want of sleep continues for a few nights," says Dr. Corrigan, "delirium, and coma, and nervous exhaustion, must follow." It may even lead to a fatal termination independent of any other lesion, anatomical or functional. Among several expedients to promote the return of sleep, Dr. Corrigan speaks highly of the application of leeches, "four or six leeches to the temples." "This is an anodyne upon which, for my own part, I place more reliance than almost on any other. The result is often most gratifying. In some instances good sleep is at once procured, in others it is only obtained at short intervals the first night. The repetition of the leeches is made the next day, and there is again rest; it is seldom necessary to repeat them more than the third time."

Many such valuable practical hints will be found through this little work appended to the accounts of the lesions of the several functions, the phenomena of fever being studied in order, as they present themselves in the cerebro-spinal, nutritive, circulating, and respiratory systems. The Ninth Lecture, p. 81, contains some very valuable suggestions on the treatment of those painful complications and sequelæ of fever, bed sores we mean. All who have attended cases of typhus must know how often the patient's life is endangered by neglect of very simple precautions leading to the formation of large sloughing sores on parts exposed to pressure. In the low condition of vitality of parts, at a distance from the centre of the circulation, it is sometimes impossible, even with all due care and precaution, to prevent the occurrence of these sores; but the liability to their formation is increased manifold by neglect of ordinary precautions. Dryness and cleanliness are indispensable. Some years ago, Dr. Corrigan invented a bed of a very simple construction, which is exceedingly useful in the management of severe cases. A glance at his wood-cut of it will make it far more intelligible than any lengthened description. We may just mention, that the surface of support consists of a number of parallel web girths, firmly nailed at one end, and capable of being tightened or relaxed by a strap and buckle at the other; thus, the girth or band under any tender or ulcerated surface may be slackened at will, the remaining girths supporting the weight of the body.

Typhoid fever is rarely seen in Dublin; if it were more frequent, Dr. Corrigan would not have called it follicular enteritis. To this disease his concluding lecture is devoted. It bears evidence, like the other parts of the work, of being written by a practical physician.

Sanitary Measures and their Results; being a Sequel to "The History of Cholera in Exeter in 1832." By Thomas Shapter, M.D., Physician to the Devon and Exeter Hospital, etc. Pamphlet. Pp. 32. London: Churchill. 1853.

It has been asserted, on more than one occasion, by some of the writers in the periodical literary productions of the day, that, as medical men live by disease, so they cannot be expected to take any very active part in forwarding the progress of sanitary reform. To refute arguments founded on such false premises is not our present intention, being content that we should be judged, not by words only, but by acts,—by the daily conduct and proceedings of the whole body of the Profession. The motives which have induced Dr. Shapter to publish his pamphlet are much to be commended, his chief object apparently being to arouse in the inhabitants of Exeter a desire for sanitary improvement. This he attempts to do by briefly showing the advantages to be derived from good sewerage, from a large supply of water, from clean and well-ventilated houses for the poor, as well as from the removal of all nuisances—slaughterhouses and such like—to parts beyond the city. The economy, moreover, of preventing disease is well pointed out. Thus, it is remarked, in taking a money estimate of sanitary measures, that, "in 1832, with neglected sanitary arrangements, the money absolutely expended in Exeter during the prevalence and in consequence of the cholera amounted to upwards of 5,000*l.*; while, in 1849, under sanitary provisions, it amounted to only 333*l.* 18s. 6d.; and it should be borne in mind, that this comprised the whole of the expenses of the Sanitary Committee during the period of fourteen months, (*i. e.*, from Oct. 18, 1848, to Jan. 8, 1850,) in which it pursued the measures it deemed necessary. But the whole is not then stated; there must be added to the *per contra* account of 1832 the expenses incidental to the overplus of 359 deaths, (*i. e.*, the difference between the 402 which took place in 1832 and the 43 in 1849.) It is difficult to estimate to what these may amount, but, looking at the widowhoods and orphanage necessarily attendant thereon, they cannot but form a very large item to set against the improvidence of a

neglect in sanitary measures. Moreover, in considering the above statement, it must not be forgotten, that the public expenditure is alone referred to. That caused to private individuals, could it be ascertained, would only tell the same tale."

The other facts contained in this pamphlet are equally instructive, and will well repay the trouble of perusal. We use the word "trouble" advisedly, the syntax and the general style of the composition not being all that, as critics, we could desire. The truth of the following paragraph, for instance, may, we think, be doubted:—

"During the early part of August the cholera prevailed in some intensity in Plymouth. Amongst others, the military stationed there suffered. On the 2nd it broke out in the 82nd regiment, and in the course of a few days many of the men died. The barracks in which this regiment was quartered being eminently unhealthy, it was, on the 9th, forwarded by the railway to Exeter."

We have often been told of the great variety of articles that are forwarded to distant parts by railways, but we never before heard of so large a parcel as the barracks must have made. In a second edition, all such errors must be carefully expunged.

On the Local Application of a Benumbing or Congealing Temperature in Inflammatory, Painful, and Malignant Diseases. By James Arnott, M.D. 8vo., pp. 17. J. Churchill. 1852.

The object of Dr. Arnott's little pamphlet is expressed by its title. As to the local mode of applying a benumbing or congealing temperature, Dr. Arnott says:—

"A convenient mode, as respects most parts of the body, is to place a frigorific mixture of appropriate strength, contained in a net of thin gauze, immediately in contact with the skin."

The temperature of the frigorific mixture should be below zero, and the gauze net containing it should be kept in contact with the skin for a short time only. From cold thus employed "on many thousand" occasions no injury has resulted.

The following are some of the cases adduced by Dr. Arnott to prove the efficacy of the treatment:—

"A mechanic, residing in Brighton, had been suffering much for seven days from tic douloureux in the face. One short application of the frigorific mixture at once and permanently removed it."

"Of about thirty cases of headache, treated at the Brighton Dispensary by congelation, rarely exceeding a minute in duration, more than nine-tenths were permanently cured, and several by one application."

Of the power of congelation in arresting the progress, relieving the pain, and even effecting a cure of cancer, our author speaks in strong terms.

While we recommend this little pamphlet to the attention of our readers, we cannot refrain from expressing regret that Dr. Arnott should not have furnished us with more details concerning the cases alleged to have been cured.

An Essay on the Poison of the Cobra di Capello. By John Cockle, A.M., M.D., F.R.C.S.E., etc. Pamphlet. Pp. 32. London: Highley. 1853.

Public attention having been directed to the consideration of the poisoning powers of the cobra di capello by the recent death at the Gardens of the Zoological Society, Dr. Cockle has been led thereby to investigate the subject, and has now submitted the result of his labours to the scientific world. As many of our readers are aware, an hypothesis has been recently put forward with much ingenuity by Liebig, to the effect, that the fatal results produced by arsenic are due to its preventing those destructive changes of the solids and fluids of the body which are essential to life. On the other hand, it has been said, that there are, doubtless, deleterious agents which have the effect, not only of *generating* changes in the blood, but also of *accelerating* the necessary alterations to an extent inconsistent with the proper performance of the vital functions: Dr. Cockle is inclined to believe that the venom of the serpent acts in this latter manner. Were this the case, the cobra poison and arsenic might be instanced as distinct types of two classes of poisons,—the *septic* and the *antiseptic;* and it is to prove this that the essay before us has been written. We can recommend it to the favourable notice of our readers.

PROGRESS OF MEDICAL SCIENCE.

SELECTIONS FROM FOREIGN JOURNALS.

THREE CASES OF HEMIPLEGIA, PRODUCED BY THE PLUGGING OF ONE OF THE CEREBRAL ARTERIES.

By Dr. RUHLE, of Breslau.

The sudden occurrence of hemiplegia, with or without loss of consciousness, is an accident by no means uncommon in diseases of the heart. Examinations show as the cause of these phenomena, either apoplexy or softening of the cerebral substance. The frequent combination of the latter with stopping of a neighbouring cerebral artery establishes a connexion between the two. Virchow has demonstrated, in his work upon "Acute Inflammation of Arteries," that some of the coagula in arteries are dependent upon foreign bodies, which are conveyed thither by the stream of blood from distant parts. He has called these "partially obliterating coagula," and has communicated some cases where such masses have been found in the cerebral arteries, and where there has been softening in the corresponding segment of the brain.

The cases related by Dr. Rühle are interesting, because there was no disease of the arterial coats at the affected part. As the subject is one of special interest, we will relate the cases at some length.

INSUFFICIENCY OF THE AORTIC VALVES.—NARROWING OF THE AORTIC APERATURE.—LARGE MOVABLE CONCRETION ON ONE OF THE VALVES.—SUDDEN PARALYSIS OF THE RIGHT HALF OF THE BODY.—STOPPING OF THE LEFT ARTERIA FOSSÆ SYLVII BY A PIECE OF CARBONATE OF LIME WITHOUT ANY DISEASE OF THE ARTERIAL COATS. — SOFTENING OF THE MIDDLE PART OF THE LEFT CEREBRAL HEMISPHERE.

Emil Scholz, aged 19, was attacked (August 11, 1851) by acute articular rheumatism, during the course of which he experienced pain in the præcordial region, accompanied with shortness of breath. Under the nipple and in the fifth intercostal space there was heard loud systolic and a faint diastolic murmur; towards the right, the systolic murmur decreased in degree. There was a systolic murmur in both carotids. The radial pulse was small.

The diagnosis proclaimed—"Stenosis ostii aortæ; insufficient valv. semilun. aortæ; insufficient valvula bicuspidalis; hypertrophy and dilatation of both ventricles.

On the 6th of September, there suddenly came on loss of consciousness and paralysis of the right side, the latter affecting the muscles of the tongue, the face, and of the upper and lower extremities. The symptoms remained unchanged till death, which ensued September 27.

Examination of the Body.—Infiltration into the pia mater. The left arteria fossæ Sylvii is plugged in the first part of its course. The plug consists of a firm, calcareous deposit, surrounded by soft, yellowish fibrine; from here to the next collateral branch, a clot filling the vessel; from there, the vessel empty. The walls of the vessel at the plugged point, and of the vessels generally at the base of the brain, smooth, transparent, and healthy. The whole left corpus striatum and neighbouring cerebral substance, to the depth of half an inch to an inch, of light yellow colour, and semifluid; it contained numberless fat granule cells; the rest of the brain normal. Fluid in the pericardium; fibrinous shreds attached to the surface of the heart. Left ventricle greatly dilated and hypertrophied; nothing abnormal at the ostium venosum or valvula bicuspidalis. The semilunar valves of the aorta shrunken, thickened, and stiff. On the posterior valve a long, movable, mulberry-like body, the size of a hazel-nut, consisting of lime, covered with fibrine. The inner surface of the aorta, close above the valve, torn transversely to about half an inch. The circumference and base of this slit, and the neighbouring parts, covered with a transparent, yellow, firm substance. The aorta and its branches normal. Other structures healthy.

That the concretion in the left arteria fossæ Sylvii came from some distant part is proved by the perfect integrity of the coat of the cerebral artery. In no other situation than that of the aortic valves was found this formation of calcareous matter. The mobility of the deposit, and the increased force of the current of blood consequent upon the hypertrophied condition of the muscular walls, and the narrowing of the aortic outlet, favoured the detachment of the deposits. Near the plugged vessel was found softening of the brain. Was

this a consequence of the state of the artery? Before replying in the affirmative, the numerous anastomoses in the cerebral circulation must be considered. However, softening of the brain is known to ensue after ligature of one common carotid. Dr. Rühle thinks that the one must be the consequence of the other, when, as in the preceding case, the walls of the vessel are free from morbid change.

He then considers the connexion between the hemiplegic symptoms and the ramollissement. Did the former, which came on suddenly some weeks before death, depend on the latter? Ramollissement may go on without producing symptoms during life; and in all cases it must be more or less progressive. Did the hemiplegia ensue upon its attaining a certain degree? The following case is one of special interest, as showing that the stopping of the circulation in the vessel can of itself call forth the symptoms of hemiplegia without there being any change in the cerebral substance.

DEFICIENCY IN THE VALVULA BICUSPIDALIS.—OLD FIBRINOUS DEPOSIT UPON ITS SURFACE.—SUDDEN PARALYSIS OF THE RIGHT SIDE WITH SOPOR.—DEATH IN SEVEN HOURS.—STOPPING OF THE LEFT INTERNAL CAROTID ARTERY, WITHOUT ANY OBVIOUS CHANGE OF STRUCTURE, IN THE LEFT CEREBRAL HEMISPHERE.

Auguste Tietze, aged 34, suffered from acute articular rheumatism Jan. 9, 1851. Upon her dismissal, May 2, there was a systolic murmur, strongest at the apex of the heart; increase of the second sound in the second intercostal space on the left side; diminution in the third and fourth intercostal spaces. On July 22 the patient again experienced pain in the left knee-joint, attended with effusion. On September 12 she ate her breakfast as usual; an hour afterwards she was found speechless. There was paralysis of the right side of the face, difficulty in moving the tongue, inability to sustain the right arm when raised, or to bend the right leg. Death ensued at two p.m.

Examination of the Body.—The left internal carotid artery is plugged by firm, dry, brownish coagulum, from which softer and newer coagula extend into the arter. ophthalmica and arter. fossæ Sylvii; the common carotid is free; the cerebral substance unaltered; the left auricle of the heart enlarged and hypertrophied; the ostium venosum sinist. narrowed to a fissure, which only admits the little finger. At the left extremity of this fissure lies a dry, brown coagulum, imbedded in a calcareous fissure; it is about the size of a cherry, and projects by its free extremity into the left ventricle, which, however, was quite healthy.

The formation of warty growths on valves, which offer no impediment to the circulation, and produce no morbid sound, may lead to the same phenomena in cases beyond the reach of diagnosis.

STOPPING OF THE LEFT INTERNAL CAROTID BY A FIRM ELASTIC WHITE PLUG.—SOFTENING OF THE LOWER AND MIDDLE PART OF THE LEFT HEMISPHERE.—PARALYSIS OF THE WHOLE RIGHT SIDE OF THE BODY.—OLD FIBROUS DEPOSITS ON THE AURICULAR SURFACE OF THE OTHERWISE NORMAL BICUSPID VALVE.—TUBERCULOUS DISEASE OF THE LUNGS.

Frau Schwenk, aged 26, admitted into the hospital Dec. 18, 1851, with paralysis of the right side of the body, and symptoms of extensive tuberculous disease in the chest. Died Jan. 1, 1852.

Examination of the Body.—Upon the convex surface of the upper surface of the left cerebral hemisphere is a diffused extravasation of blood. The vessels at the base of the brain are quite normal. The left internal carotid contains, with a perfectly healthy condition of its walls, a white and elastic plug, completely filling the vessel, and extending to the arter. ophthalmica. Some of the convolutions are softened in the middle lobe as deep as the wall of the lateral ventricle. In the heart, there was seen, from the left auricle, upon the long process of the bicuspid valve, in the middle between its free end and point of insertion, two irregular fibrous coagula about the size of cherry-stones. The valve in other respects normal. No other coagula in any other part. In the lungs were found extensive vomicæ.

In the three cases here related there was plugging of the cerebral arteries of the left side, with paralysis of the right half of the body. If in the left side of the heart fibrinous or calcareous deposits become separated and are driven forwards by the stream of arterial blood, they reach the left carotid much easier than the arteria innominata, as the former is much more the continuation of the first part of the aortic arch than the latter, which is given off at an angle.

A similar explanation, viz., the angle by which the vessel leaves the trunk, is offered by Virchow to account for the more frequent occurrence of mortification in the left lower extremity from the plugging of the left iliac artery.—*Virchow's Archiv.* 1853.

[Dr. Rühle is doubtless correct in assigning the angle at which the vessels leave the arch of the aorta as a reason why the plug should be forced into the left carotid in the three cases here related; but the plug may be driven into the innominate artery, as has been shown in the cases described by Dr. Kirkes ("Medical and Chirurgical Transactions," 1852); and it must be remembered, that there is great irregularity in the mode in which the great vessels leave the arch of the aorta. In some cases the current of blood would be driven with greater force into the innominate, in others into the left carotid.—*Translator's Note.*]

GENERAL CORRESPONDENCE.

CHOLERA IN THE BAHAMAS.

[To the Editor of the Medical Times and Gazette.]

SIR,—The following account of the recent ravages of cholera in the Bahamas, has been supplied to me by my brother, Mr. Farre, who, having been educated for medicine, but not practising it, kindly undertook the arduous and somewhat dangerous office of Resident Medical Superintendent of the Cholera Hospital at Bain's Town, near Nassau. It is not as complete as I could have wished, but the facts may be depended on.

Cholera is stated to have appeared suddenly about the middle of September at Nassau, in New Providence, whence it soon spread to Bain's Town, situated in a low valley behind it. The first death occurred on the 16th of that month; and, up to October 12th, seventy-nine deaths were reported from this cause; but the real number was supposed to exceed one hundred. The disease, though checked in its original locality, spread rapidly over the island, and, by the 10th of November, the deaths had considerably exceeded 600, 500 at least of which had occurred since October 10th, giving an average of 125 a week, or 18 a day. The mortality then began to diminish, for, on December 2nd, the whole number of deaths was estimated at 700, which leaves something less than a hundred for the three preceding weeks. The cases were at this time few and generally mild, though still occasionally fatal; and, even a month later, seven or eight deaths were occurring weekly. The whole population of the island being about 9000, the deaths were at least 8 per cent.

The first person attacked was a native white woman; but, during the early prevalence of the disease, it was almost entirely confined to the coloured inhabitants, the white people, with the exception of the doctors and the ministers of religion, having fled from the infected localities. But, after a few weeks, the whites were overtaken, and began to suffer also. The history of this pestilence is not unlike that of the first attack of cholera in England, in 1832. Most of the robust patients recovered, while the weak, young and old, died. Of the intemperate a large number died without a chance of recovery, confirming the evidence on the predisposing and depressing effect of intemperance, published in 1850 by the London General Board of Health, in their report on cholera. Death took place in one instance in three hours after the first seizure. More women were attacked than men, and those who were *enceinte* nearly all died.

A temporary hospital was first opened in the eastern suburb of Nassau; but the inhabitants having fled, the pestilence soon removed to another district, and the doctors followed in its wake.

Another hospital was soon afterwards opened at Bain's Town, where thirty-two cases were reported on the 30th of September. This hospital was kept open fifty-eight days, and received 137 patients, of whom 82 died, or 60 per cent.

	Deaths.	Recoveries.	Total.
Males	42	27	69
Females	40	28	68
Total	82	55	137

Medicine and medical attendance were also largely supplied to out-patients, and to the sick at their own houses. In one district, containing about 3000 inhabitants, above 500 persons were under treatment between September 28th and October 9th.

The eastern hospital was closed when the cholera removed to Bain's Town, but was re-opened on the 14th of October, the disease

having re-appeared in its original locality. I have no record of the cases admitted.

The Bahama doctors differed in their treatment, like their brethren in England. The following were the remedial measures most frequently adopted at the hospital:—

1. Strong brandy-and-water, with external stimulants, and strong opium enemas during collapse.

2. Cupping-glasses to the spine and epigastrium, with sulphuric ether and carbonate of ammonia.

3. Calomel in large doses, with plenty of port wine; flannel or calico bandages to the abdomen, kept wet with a strong liniment of oil of turpentine and liquor ammoniæ. This liniment is stated to have been very serviceable in overcoming the irritability of the stomach. Blisters to the epigastrium and creosote were also employed for the same purpose.

Cold water was eagerly sought and freely given, to relieve the internal heat.

In incipient cases, chalk mixture was generally employed, and quinine was freely administered during convalescence.

The treatment, then, during the more important stages, and especially during collapse, consisted chiefly of calomel, stimulants, irritants, opium injections, and local depletion. No mention is made of the internal use of opium, except by enema, nor of its external use, though the latter is particularly serviceable in the ordinary cholera of the West Indies, and is perfectly free from the ill effects which frequently occur when it is largely administered internally. Venesection is not mentioned, except in one case—a case of collapse. Emetics and purgatives are also passed over in silence, as well as salines and saline injections. Warm baths are rarely used in the West Indies, even as a luxury, and are not mentioned in the hospital arrangements.

The Negro race are extremely prejudiced and obstinate, and were with great difficulty induced to take any medicine. Of the cases brought to the hospital, many had entirely neglected all means of recovery, and eighteen or twenty were dying when brought in. Still, the mortality of the hospital, 60 per cent., considerably exceeds that of the hospitals which received cholera patients in London, many of whom also arrived in the collapse of death. For instance, the mortality at St. Bartholomew's was 41·5 per cent. This may possibly only show the greater fatality of the disease, or the lower vitality of the inhabitants in Bahama, as the mortality was greater in Paris than in London. But our experience of the primary importance of removing cholera patients from bad localities makes it, I think, at least probable that the mortality was swollen by the nature of the place where the hospital was situated. Bain's Town occupies a low valley behind Nassau, in the vicinity of swampy ground, only three feet above the springs. In moist weather, at sun-rise, a heavy mist hangs over the entire hollow, and fever is very prevalent. Nowhere was the disease so fatal as in this valley.

The weather appears to have been unusually cool and agreeable. It is described on October 18th as very cool and pleasant, dry and fine, with N.E. trade winds pretty fresh. On the night of November 15th, the thermometer fell to the unusually low temperature of 54°, with a heavy dew and fog.

The disease was said by the contagionists to have been imported from North America in a schooner which came into the port of Nassau with the hatches nailed down. I am not informed whether any person belonging to this vessel had cholera; but the man who unnailed the hatches was one of the earliest, though not the earliest, victim of the disease, the first being a woman, who is stated to have resided near the spot where the schooner anchored. Mr. Farre, however, who, though living for fifty-seven days and nights among the cholera patients, suffered more from anxiety and fatigue than from the pestilence, believes it to be of atmospheric origin, and mentions the following fact in natural history, which he and many of the inhabitants consider to have been something more than a mere coincidence:—

About the middle of July, one species of ant appeared in vast numbers in the locality where the cholera subsequently committed its greatest ravages, viz., in the valley behind Nassau Town, covering the road, (so that it was impossible to walk without destroying scores at every step,) filling all the houses and beds, and actually creeping into the fire to get at the food while being dressed. Strong in their numbers, they attacked the living as well as the dead, blinded hogs by creeping into their eyes, and even attacked the lizard, which usually preys on them. They continued to increase, and were most numerous just before the cholera broke out early in September. It was frequently necessary to apply turpentine to the face of a slowly-dying patient, to keep them off. The superstitious negroes often expressed the idea, that the ants came to eat the dead, and that they knew what was about to happen. When the pestilence decreased, the ants decreased with it. It is well known that the ant is in tropical countries the great consumer of dead and decaying animal substances. Mr. Farre asks, was there a taint in the atmosphere, imperceptible to man, which attracted these ants to their anticipated feast on human remains? I confess I think not. If any connexion existed between the invasion of ants and the invasion of cholera, I am more disposed, following the order of the two events, to attribute the cholera, or at least its severity in that particular locality, partly to the ants, rather than to reverse the cause and effect. The description of the plague of ants reminds one on a small scale of the plagues of Egypt in the time of Moses, when the land was corrupted, and the river stank, and the Egyptians could not drink of the water of the river. The waters of the valley above mentioned probably stank also, from multitudes of ants drowned in them, and may possibly have aggravated, or, at least, predisposed to, the disease, as the drinking of water containing decomposing animal matter frequently did in this country.

Dr. Gavin visited Nassau on a tour of inspection during the prevalence of the epidemic.

In the beginning of December it was raging severely throughout the entire group of the Bahama Islands. In one only of these is there a resident medical man; the others have neither doctor nor medicine of their own. But two medical men have gone from Nassau with supplies for their aid. I am, &c.

Montague-street. FREDERIC J. FARRE.

DR. HASSALL AND MR. ST. JOHN EDWARDS.

[To the Editor of the Medical Times and Gazette.]

SIR,—I send you a copy of a letter I wrote to the *Lancet* on the 14th of February. Three numbers of that paper have since been issued, and my letter has not appeared. I presume that it is intended that it shall not appear there; why, I cannot conceive. Dr. Hassall has committed a serious blunder, and has given that blunder to the world in the pages of a weekly journal. Why am I refused the privilege of exposing that blunder in the same journal? Let the Editor, who places at the head of his column of correspondence the conspicuous motto, "*audi alteram partem*," answer me this. I am, &c.

University College. ST. JOHN EDWARDS.

[To the Editor of the Lancet.]

Sir,—In the *Lancet* for Feb. 12, 1853, there is a "report by Dr. Hassall relative to a specimen of 'black vomit.'" The last ten lines of this report are as follow:—"That the sporules of the fungus sarcina ventriculi do really give rise to vomiting is certain, and, with a view to check the sickness, I would recommend the treatment which has been found so surprisingly efficacious in cases of sarcina,—viz., the systematic administration of alkalies, with especially repeated doses of sulphite of soda. An acid liquid is one of the conditions essential to the development of most fungi; by the exhibition of alkaline remedies this condition is destroyed; while the sulphur of the sulphite would exert a most destructive effect upon the sporules of any fungus which might be present."

I would ask Dr. Hassall by whom the systematic administration of alkalies with especially repeated doses of sulphite of soda has been found so surprisingly efficacious in cases of sarcina. If the words have any meaning at all, Dr. Hassall evidently recommends the administration of the sulphite and the alkali in conjunction. Now, I have ever understood that the whole efficacy of the sulphite treatment depends on, and consists in, the liberation in the stomach of the sulphurous acid from its combination with the soda, and the consequent destruction by the liberated acid of the vegetable sarcinæ. I believe, too, that this is the generally accepted view of the action of the sulphite. What, then, becomes of Dr. Hassall's alkaline adjunct? The more alkali he gives the greater is the amount of the acid of the stomach that he neutralises, and the less, therefore, the chance of the liberation of the sulphurous acid. The only instance of the effect of the coetaneous administration of an alkali with a sulphite that I know of is contained in the following extract from a lecture delivered by Dr. Jenner, at University College Hospital, and published in the *Medical Times* for Aug. 23, 1851, page 193, "On account of the burning pain which he occasionally complained of, I now ordered him a mixture containing sodæ carb. ʒij. in each dose. On the 13th, 15th, and 16th, he again vomited sarcinæ in quantity, and, as I suspected that the soda prevented the evolution of the sulphurous acid, I omitted the carbonate. From the 16th of May to the 19th of June the vomited matter contained no trace of sarcinæ or torulæ."

I know that in this case the soda was taken at times calculated to interfere as little as possible with the action of the sulphite;

what would have been the result of giving them in conjunction Dr. Hassall even now may guess.

I am, &c. JOHN EDWARDS, M.R.C.S.

NERVOUS HEADACHE.

[To the Editor of the Medical Times and Gazette.]

SIR,—I will feel obliged by your inserting the following in your Journal, as I am desirous to elicit information as to the nature and treatment of nervous headache.

"Nervous affections" are confessedly difficult subjects; and though fully twenty years in the Profession, with all the light shed on the subject during that period, I confess I still require information on the matter, which I seek now through your Journal.

Females "having a peculiar character of nervous system" are most liable to this affection, conventionally termed "nervous headache."

It does not appear dependent on other organs of the body, which, in most instances, perform their functions properly.

The chief characteristics of the headache I allude to are, that it is variable in its advent, and uncertain in its duration and departure, sometimes commencing slightly in the morning, and relieved by food; at other times (and these the more frequent) gradually increasing in intensity, and relief only obtained by sleep. In some cases, and at times in the same individual, this happy effect does not follow, and then the pain continues unrelieved for a day or more, and then gradually subsides, leaving the body enfeebled.

The pain is often localized in the right or left temple, sometimes chiefly felt in the occipital region, and frequently it is diffused over the entire head.

Authors draw, indeed, a good general figure of the disease, but when this is brought to the bed-side, and tested by the actual malady before us, we find how poor the resemblance is. Antispasmodics and tonics, with external irritants and sedatives, have been tried and tried in vain. Would it not appear to be more dependent on morbid states of the blood, and an anæmic condition of the brain itself, and these influenced by the electrical states of the atmosphere?

One thing is certain, the affection is not inflammatory, and we must try and improve the patient's health in every way in our power. For further information I appeal to the Profession, and any light thrown on the subject will be received as a boon, I am satisfied, by many, as well as, Sir, by your old subscriber,

County Cork. "BOVIER."

ETYMOLCGICAL PERVERSIONS OF SCIENTIFIC NOMENCLATURE.

[To the Editor of the Medical Times and Gazette.]

SIR,—It was a saying of Condillac's, that "*La science n'est qu'une langue bien faite.*" If there be the smallest substratum of truth in this somewhat paradoxical aphorism, it would seem that medicine and the branches of knowledge collateral to it have but little claim to the dignified title of science. Their technical terms have been generally framed without any regard to the requirements of grammar and analogy, and, in consequence, present us with a complete museum of etymological malformations. It is true that a correct terminology is not of such importance in the sciences of observation as it is in those of reflection, but still it must be allowed that in all departments of study precision of language is a considerable aid towards obtaining precision of thought. Medical writers are pre-eminently unfortunate in forming derivatives from the roots furnished by the ancient languages; and they are not much more happy in their explanations and applications of such terms as may have been transplanted with little or no change at all from a foreign into their modern vocabulary. Of the one and the other species of blunder, the technicalities which are most familiar to medicine, and the subjects of study in immediate connexion with it, will furnish many illustrations.

1. The term "sigmoid" may be taken as an instance from the terminology of anatomists. The word may be considered as an unadulterated importation from the Greek; saving the loss of its termination, it has in no way been tampered with. And yet it is used in two wholly different senses, one of which is classical, intelligible, and correct, while the other is an anatomical perversion, tending manifestly to confusion. In the first of its uses, it is employed to express the shape of the aortic and pulmonary valves, of a cavity in the ulna, and of a notch in the lower jaw. The second meaning we find in the name given to that peculiar convolution of the large intestine which is called "the sigmoid flexure of the colon." The first class of objects possesses one common quality—"semi-circularity," and this is the attribute which the word in the Greek uniformly expresses. But the word in its second usage has quite another force. The account to be given of the discrepancy is this.

The Greek "sigma," as any one may learn by a walk to the British Museum, was written as is our capital C. Hence the word "sigma" is in Greek used of the semicircle of a theatre, and, in poetry, of the new moon. Consequently, the word "sigmoid" is with propriety applied to such objects as the aortic valves or ulnar cavity. But the Greek "sigma" is also written in a form which our capital M might represent if set upright on one of its sides. And it is to a sigma of this form that the flexure at the termination of the colon is compared, alike to the confusion of the learner and the violation of the classical usage of the word. It is never convenient to have in a vocabulary of scientific terms a word which expresses two different and unconnected meanings; and, in this case, the ambiguity is the less excusable, as being referrible solely to our own ignorance and blundering.

2. The morbid growths with which chemical nomenclature is loaded are "in number numberless." Ill-nurtured children of the word-coiners, they are—like the London poor before the institution of hospitals—"infected with divers great and horrible sicknesses and diseases." Of the Lavoisierian terminology it has been most truly said, that "it is a system of philological monstrosities in which it is fortunate when the analogies of language are only violated and not reversed." We may take examples from among the terms of most familiar use, at once with least trouble and most advantage. The namers of the three gases, "oxygen," "hydrogen," "nitrogen," intended the words they had framed to mean severally, "acid-producing," "water-producing," "nitre-producing." But, on the analogy of the Greek, these words should have a passive, not an active force. For what was the meaning of the words, "Diogenes," "Eugenes," "Protogenes," etc., etc.? Surely, when a Homeric hero was addressed by the name borne in after days with so much credit by the cynic, this honorary title meant, not that he was the begetter, but the begotten—not that he was the parent, but rather the foundling, of Zeus the Salacious. There is, however, a chemical derivative in which the analogies of this family of words are preserved inviolate. This is the word "phosgene," the name given by Dr. John Davy to the chloro-carbonic acid gas, and intended to express—and expressing—its distinguishing characteristic, viz., that of being generated by the action of light. And the history of the discovery of this gas, and of its nomenclature, is satisfactory proof that great scientific attainments may co-exist with philological accuracy.

3. In descriptions of the process of absorption, there are two terms so constantly employed, that it is as necessary to know what meaning is attached to them as it is difficult to see why they should bear such a force. These terms are, "exosmosis" and "endosmosis." When two fluids of different densities are separated one from the other by a membrane, the more dense of the two passes in a comparatively slow current into the less dense, and is said to exosmose; the less dense passes in a more rapid current into the more dense, and is said to endosmose. The absurdity of such a nomenclature is, perhaps, without comment, sufficiently self-evident. It is indeed true that, for some time after their coinage, the first two syllables of the derivatives severally did bear the meanings "within" and "without," as in the language from which they are taken. But as we have chosen to substitute the idea expressed by the word "rapid" for that expressed by the word "within," and the idea expressed by the word "slow" for that expressed by the word "without," and as no one has yet been able to give any explanation of the termination "smose," common to both words, it was surely foolish to retain the terms when neither the one nor the other of their constituent elements had any longer any connexion with the complex notion we now use them to represent. And neither on the score of euphony, nor on that of convenience, have these words any claim to preservation. Indeed, in their liability to be confounded the one with the other, they remind us of the history of the words "starboard" and "larboard;" and the change so successfully made in these latter terms should encourage us to make a similar revolutionary attack on the much less time-hallowed creations of M. Dutrochet. There are Greek compounds, all but ready made to our hands, signifying respectively rapidity and slowness of permeation. By "tachyporia" and "bradyporia,"(a) fluids would be said to pass into and interchange with each other not less euphoniously and much more correctly than by "endosmosis" and "exosmosis."

In the whole range of the vocabulary of medicine, no term has met with so much misusage as the term "tubercle." It happened to be a convenient expression, and consequently it was made use of on all occasions. In morbid anatomy, indeed, it only stands for

(a) The i of the penultimate syllable should be pronounced long.

two entirely diverse classes of objects —the innocent cutaneous concretion, called also acne, and the destroying product of the scrofulous temperament. But in descriptive anatomy the difficulty is, to say what meaning the word is not set to represent. In osteology we find it used indifferently and impartially, to denote transverse, spinous, and articular vertebral processes, as well as any projection in other bones which may be intended to serve any one or any other purpose. Again, it is employed of very many very diverse objects in the heart and in the brain. In short, it would be a work of some utility to classify the several varieties of objects the notion of which is brought before the mind of a bewildered student when he hears the word "tubercle" pronounced. But this may be all mere verbal criticism. To see *simile quid inter-dissimilia*, has always been held as a property of the philosopher *par excellence*. He excels—

> "In observation of affinities,
> In objects where no brotherhood exists
> To common minds."

But alas! it is of the want of such a spirit of generalisation that such grievous complaints are made by the homologists. They say that a slight attention to the similar relations, which apparently dissimilar structures hold, would simplify, shorten, and rationalise the details of anatomical cram beyond belief, and yet that they have little hope of seeing such a revolution effected. But we are taught that it is better it should be so, for "all such innovations," to quote the words of an anatomist of great and long-established repute, "are highly dangerous, and little better than cowardly concessions to the indolent spirit of the day!" And as to any change of nomenclature, the same authority has said, that "there can be no telling where it will end if we once give way to a fanatical cry for reform in a vocabulary which neither needs nor is capable of any improvement." To those who see the force of this remark, all attempt at commentary would be superfluous.

I am, &c. OXONIENSIS.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Mr. HODGSON, F.R.S., President, in the Chair.

A FURTHER ACCOUNT OF FATTY DEGENERATION OF THE PLACENTA, AND THE INFLUENCE OF THIS DISEASE IN PRODUCING DEATH OF THE FŒTUS, HÆMORRHAGE, AND ABORTION.

BY ROBERT BARNES, M.D.

[Communicated by Professor MURPHY]

The author, after referring to a paper read before the Society, in 1851, thought that the histories of the cases now submitted would be found to throw much additional light upon the pathology of fatty degeneration in an organ in which the existence of this affection had only been recently established. These cases would also, in his opinion, lend confirmation to the view he had expressed of the importance of this affection as a cause of death of the fœtus, of hæmorrhage, and abortion. In the first case, the fœtus had attained apparently the middle period of gestation. The mother had been conscious of the death of the fœtus; she was taken suddenly with slight pains, and the child and placenta all came away together. The placenta, like the child, was free from putrefaction when sent to the author. The maternal surface of the placenta was deeply divided by sulci. Its general aspect resembled that of the brain, both in colour and subdivision. All the lobes had a pale, yellow, glistening appearance, like fat; pink or red in the sulci. In the sulci, between the lobes, there was evidence of the vascular connexion with the uterus. With these exceptions, the placenta had an exsanguined appearance. A section showed that the yellow, fatty appearance was much more marked on the decidual surface, while, on approaching the fœtal surface, there was more appearance of blood. There was nothing like fresh, healthy placental tissue. Examined under the microscope, the villi taken from any part near the decidual surface were much altered; those from near the fœtal surface were less altered, but none were found perfectly healthy. The villi in the more consolidated lobes were brittle, misshapen; the vessels breaking up, and losing their defined outline. The chorion was, for the most part, destroyed, and the nuclei in the walls of the vessels were enlarged and crammed with granules. In the less consolidated parts, the vessels retained their proper size and shape. The author's view of the pathology of this case was, that the fœtus perished some time before expulsion. All fœtal placental circulation had, therefore, ceased. The large vessels which still connected the placenta with the uterus were the channels through which an imperfect utero-placental circulation was carried on up to the last. As there could have been no interchange between the materaal and fœtal blood, this circulation must have been simply to maintain a low degree of nutrition in the placenta. Granular degeneration had commenced prior to the death of the fœtus; but the granular conversion of the villi continued to increase after the death of the fœtus, until it had reached such an extent as to cut off so much of the remaining vascular communication as to leave the attachment of the placenta to the uterus any longer impossible; and this gradual arrest of the circulation would explain the fact, that there was no hæmorrhage at the time of labour. The next four cases were similar in general features to the last: abortion taking place from the fifth to the eighth month, the fœtus having died in utero, and the placenta presenting the characteristic conditions of the fatty degeneration just described. The sixth case was an abortion about the tenth week of gestation. There was some hæmorrhage, and the ovum came away easily. The decidua in this case was very much thickened. On the uterine surface, the oblique vascular openings were distinct, but it was pale, and had a fatty appearance. Numerous granules of oil were seen in the cells of the decidua; the fœtal surface of the decidua presented similar appearances, but the fatty change was less extensive. The seventh case was also an abortion at the early period of pregnancy, and the examination of the parts of the ovum were given in detail. The author believed that these cases illustrated the influence of fatty degeneration in producing abortion, by rendering the villi of the chorion or placenta unfitted for the office of maintaining the nutrition of the embryo; and he thought the following considerations established the doctrine, that fatty degeneration of the placenta was really the cause of abortion:—Firstly, there was no sign in any case of decomposition of the placenta. Secondly, the presence of distinct indications of continued vascular connexion between the placenta and the uterus up to the moment of detachment and expulsion. Thirdly, the various degrees of progress of the degeneration in different portions of the same placenta. Fourthly, the obvious commensurate diminution of the vascular connexion between the placenta and uterus with the progress of the affection. Fifthly, the almost constant evidence of the death of the fœtus having taken place at some definite, but not remote period. Sixthly, the analogical argument derived from the better known pathology of fatty degeneration in other organs; as in muscular structure of the heart, in the liver, in the kidneys, and in the blood-vessels, exhibiting unequivocally that this change took place during the life of the individual, and that, sooner or later, the resulting disorganisation terminated in death. In conclusion, the author remarked, that fatty degeneration of the placenta was far from being an uncommon event. He exhorted practitioners to the employment of the microscope, as the only means of investigating the abnormal conditions of the placenta. Alterations of structure in elementary tissues could not be recognised without the aid of that instrument; and he confidently believed, that the morbid conditions described by various authors as examples of scirrhous disease, of atrophy, or of tubercle, might, by microscopical analysis, have been demonstrated as fatty degeneration.

(The paper was illustrated by a number of carefully-executed diagrams and microscopic drawings.)

Dr. Druitt was anxious not to let the opportunity pass of expressing his sense of the value of Dr. Barnes's inquiries in this new and hitherto unexplored department of pathology, from which many valuable results would probably hereafter accrue. It was important, in his opinion, to collect all the facts possible, in order to discriminate trivial and accidental changes from those which were really influential in the production of disease. He would mention, as an example, that state of the villi of the chorion which was frequently found in abortions, in which they were bulged and ampullated, and apparently in an incipient state of cystic disease, which was believed to be the cause of the abortion. The villi of the non-placental portion of the chorion were commonly believed to undergo absorption after the earliest months of pregnancy; but he had constantly found them, at the end of pregnancy, scattered over the chorion, of the size which they attain in the third month; sometimes, too, they were found in the secundines of the mature fœtus, distorted, enlarged, and usually loaded with dark granules of oil. He (Dr Druitt) should like to know if the microscope had been used to determine the presence of fat globules in the placenta in Dr. Barnes's cases.

Dr. Barnes said, that, considering the length of his paper, he was unwilling to trespass further upon the time of the Society. He would limit himself to answering the question of Dr. Druitt.

The fatty matter described as having been observed in the placental tissues had not been subjected to any test; it was a matter of simple observation. The granules or spornles of oil were characteristic in form and appearance, and it did not seem to him necessary to resort to any other test than direct observation, strengthened by familiarity with the forms and appearances which fatty matter assumes in the placenta. The author was not prepared to admit that earthy or calcareous deposits had any essential or frequent connexion with fatty degeneration. He did not of course deny that the vessels of the placenta might be affected with a kind of earthy degeneration, like the arteries of the human body; but he repeated his belief, that earthy deposits in the placenta did not necessarily, or in all cases, indicate a process of degeneration; he thought that very frequently they were simply the result of elimination from the blood, modified, probably, by the conditions of pregnancy, and analogous, in this respect, to the effusions of fibrine he had adverted to in the paper. He wished to take the opportunity of enforcing upon the attention of the Society, more clearly than the reading of the paper had permitted, the last case recorded. This was an instance in which the child was born alive and healthy at the full period, and in which, nevertheless, the placenta exhibited a considerable degree of fatty degeneration. There could not be a doubt, therefore, that fatty degeneration might arise in the placenta, apart from the death of the fœtus, apart from malnutrition, or from any defect of developmental force. Had it been the fate of this child to have been retained a few weeks longer in the womb, it must inevitably have been cut off by the progress of the disease; but it so happened that the alteration began towards the termination of the gestation, and had not made such advances as to destroy the function of the placenta before the natural period of delivery. This case supplied the last proof that was wanting to demonstrate one of the main propositions he had brought before the Society, and to prove the importance of this affection as a cause of death of the fœtus and abortion.

A paper was also read, entitled,

ON SOME POINTS OF THE PATHOLOGY AND TREATMENT OF YELLOW FEVER.

By CROKER PENNELL, Physician to the Livramento Hospital, Rio de Janeiro.

[Communicated by Dr. Gull.]

The chief feature of novelty in this communication was a pathological condition, which the author believed had been hitherto overlooked, and which, he thought, satisfactorily explained the suddenly fatal termination of the disease, even in cases where the prognosis had been, for the most part, favourable. The author remarked, that it frequently happened that patients had been pronounced, even by experienced practitioners, to be free from danger, when, notwithstanding the most favourable indication of clean tongue, natural pulse, cool skin, and perfect intelligence, following one or more severe accessions of fever, the patient suddenly expired. The author's appointment to an hospital in Rio de Janeiro introduced him to a French physician, Dr. Lacaille, who stated his conviction, that, in the cases referred to, death was caused by the formation of fibrinous clots, either in the cavities of the heart, or in the large vessels leading thereto. The author's position enabled him to investigate this subject; and between February and May, in the year 1852, he made fifty *post-mortem* examinations of yellow fever patients, whose cases he had observed during life; a clot was found in each. The formation of this fibrinous clot could not be a *post-mortèm* condition, as in each case in which it was found after death it had been diagnosed during life, and when the formation of the clot took place very rapidly, a rumbling or churning noise displaced the natural sounds of the heart; the patient, at the same time, suffered from oppressed breathing, and anxiety or sensation of weight at the præcordia. The impulse became defective, and the pulse contracted and small. The clot, when found, always existed in the right ventricle, or ventricle and auricle, and was usually accompanied by a smaller one in the left cardiac cavities. The cavity of the ventricle was sometimes almost wholly filled by it. It was generally more or less round, of a clear amber colour, of gelatinous appearance, very tough, and evidently fibrinous, but not laminated. The author stated, that during life he had not discovered in these cases any other abnormal murmur than the churning sound already mentioned. That these clots constituted an important pathological condition, and were formed during life, was apparent from the following considerations:—First, he had found them as bloodless and as perfect within an hour of death as at any subsequent period at which an examination might have been made. Secondly, he had diagnosed their existence several days before death in nearly a hundred cases, all of which, as predicted, proved fatal; and in fifty the *post-mortem* examination verified the diagnosis and demonstrated the clot. The author next referred to some other conditions observed in yellow fever, and alluded to the frequency of albuminous urine as a morbid symptom. The quality of the blood drawn during life, as indicated by the character of the clot, was mentioned. The buffy coat was frequently present, but the fibrine was seldom firm, and sometimes so soft as to resemble size. The author then offered some observations upon the probable origin of the yellow fever of Rio, as to whether it originated from marshy exhalations, atmospheric changes, or alterations in its electric tension. Upon the subject of the treatment of this fever, looking from the tendency of the blood to deposit fibrinous masses, the highly albuminous urine and the great excitement existing in the circulating system, the author determined to give bleeding a fair trial. As much as twelve or sixteen ounces were taken, three, four, or five times in the first forty-eight hours. Out of one hundred and forty-six cases that were bled, thirty-two died. The author believed that further experience was necessary to decide upon the advantage of this practice. To counteract the tendency in the blood to produce fibrinous formations, nitrate of potass was tried, but without any apparent benefit. The author thought the injection of medicated fluids into the veins worthy a trial in this intractable disease.

Dr. Copland remarked, that one of the most important symptoms of yellow fever, black vomit, had been wholly passed over by the author. No mention had been made of it, although, as well known, it constituted one of the most formidable features of the severe forms of the disease. It appeared to him that the author had confused together three separate descriptions of fever,—viz., seasoning fever, intermittent fever, and true yellow fever. There was, however, in reality a wide difference between these diseases, both in their severity and the pathological changes which they brought about; and this difference, of late years, had been clearly pointed out by authors in their description of the diseases peculiar to tropical climates. He (Dr. Copland) was at a loss to understand how the tendency of the blood to coagulate in the cardiac cavities during life could exist in conjunction with the profuse discharges from mucous surfaces so particularly adverted to by the author, and inasmuch as no mention whatever had been made in the author's reports of one of the most striking characteristics of yellow fever, it was, in his opinion, very questionable whether all the cases were genuine examples of that disease.

Dr. Basham said, the formation of the clots in the cavities of the heart during life constituted a feature of interest in the author's paper, if viewed in connexion with the changes in the nutrition of important organs described by Dr. Senhouse Kirkes, (in a paper read during the previous session of the Society,) as consequent on the obstruction of large blood-vessels by fibrinous concretions washed from the valves of the heart. He thought the damage done to the nutrition of important organs, in the cases collected by the author, exemplified changes similar in some respects to those adverted to by Dr. Kirkes.

The President remarked, that Dr. Kirkes, in his communication to the Society, adverted only to such concretions as had been formed on the valves of the heart, or on the lining membrane of its muscular wall, in consequence of inflammation—clots which were, in his (the President's) opinion, to be regarded as formed from effusions of fibrine from the vessels of an inflamed membrane, and were therefore not similar to those soft, gelatinous coagula which had been so especially adverted to by Dr. Pennell, and which formed in the cavities of the heart or in the great vessels, from simple coagulation, independent of the existence of any inflammation.

The Society then adjourned.

NEW GALVANIC BATTERY.

After the President had left the chair, a very ingenious galvanic battery was exhibited to the members of the Society by Mr. Stringfellow, the inventor. Among the chief merits of this instrument may be considered its compactness and portability, as it is contained in a morocco case not larger than a lady's card case. It is a flat interrupted plate, composed of zinc and copper in a manner somewhat similar to Pulvermacher's galvanic chains. The battery is formed by a number of compound bars or plates arranged in a series, and its power may be graduated by the number of bars. Twenty-two bars thus combined will communicate a decided shock, and develope an uninterrmitting galvanic current, by the continued application of which cauterisation of the skin may be affected. Six bars furnish a current sufficiently powerful to decompose water, as may be seen by placing the conducting wires of the battery in communication with those of a decomposing bottle filled with water. Mr. Wood,

of St. Bartholomew's Hospital has ingeniously applied this decomposing power of the instrument to discover the presence of albumen in urine, and it constitutes a very beautiful and ready means of detecting it, even in highly acid urine, or in urine where the presence of a large quantity of urate of ammonia causes a precipitate of a non-albuminous character to be thrown down by nitric acid. The galvanic current evolved affords, moreover, an unintermittent stimulus, and this quality renders it available for physiological experiments, such as might be instituted to determine the properties of nerves or muscular structures. Pocket batteries may be constructed of sufficient power to restore suspended animation, whether resulting from asphyxia or other causes, and we think Mr. Stringfellow's battery will be found a valuable and convenient instrument, both for therapeutical and chemical purposes in medicine.

MEDICAL SOCIETY OF LONDON.

Mr. Bishop, F.R.S., President; in the Chair.

The two following abstracts of communications made to the Society, on the 26th of February, are inserted here, having been transmitted by their authors too late for publication last week.

Mr. Dendy related a case of

IMPERFORATE ANUS,

under the care of Mr. Ion, of Lambeth. The child was born apparently healthy and perfect. On the second day, as no meconium had passed, and as there were slight symptoms of strangulations, the anus, apparently normal, was examined, and found to terminate in a *cul de sac* about half an inch deep. A curved trocar was passed into the rectum, having penetrated about one inch and a half, and through the canula passed flatus and meconium. The child died on the fourth day, and was examined on the fifth. The complexion of the skin was saffron-coloured; the intestines were unusually vascular, (the jejunum almost like a small cord,) very thin films passing from one to the other; an ounce of dark grumous fluid was in the peritoneal cavity. There was no deep pelvic fascia, but slight films attached the almost floating rectum to the coccyx, the pouched gut almost filling the pelvis. There was no levator ani, and the sphincter had only a perineal attachment. The trocar had penetrated the rectum about the middle of the third portion. When the anus thus terminates in a *cul de sac*, the operation is always unpromising, as even if a flexible catheter be retained, portions of meconium, etc., may escape into the cavity of the pelvis.

ANEURISMS.—UTERINE HYDATIDS.

Dr. Hawksley exhibited two interesting morbid specimens. The first was an instance of aneurism of the aorta bursting into the right auricle, and the other that of a mass of uterine hydatids, so called. Dr. Hawksley explained, that the subject of the aortic aneurism was a baker, aged 51, a man of short, thick set, athletic build, and of remarkably irritable and passionate temper, and a dram drinker. He had for some years been afflicted by chronic bronchitis. He came to the Dispensary for Consumption and Diseases of the Chest, in Margaret-street, about a week before he died, and Dr. Hawksley found him suffering greatly from dyspnœa and cough. The physical and other signs indicated bronchitis and emphysema. There were no general signs suggestive of diseased heart, except a slight jerkiness in the pulse. He had never had rheumatism; there was no palpitation complained of, and no dropsy. The condition of his lungs precluded a critical examination of his heart at that time. He died somewhat suddenly and unexpectedly,—not so suddenly as would be expected from rupture of the aorta, but unaccountably so from bronchitis. The *post-mortem* examination satisfactorily explained this by the fact, that the rupture had taken place into a cavity of the heart, and produced a condition analogous to unelosed foramen ovale. He complained of severe pain in the right hypochondrium several hours before he died. All the thoracic and abdominal viscera were found immensely congested by dark fluid blood. The lungs bulged out, and did not at all collapse, in consequence of very considerable vesicular and interlobular emphysema. The bronchial tubes were congested, and contained abundance of mucus. The pericardium contained more than the usual quantity of serous fluid. The heart was about double its proper size, and had a rough white spot near its apex. The right cavities were most enlarged, particularly the right auricle, which formed a bag as large as the ventricle is normally. All the cavities of the heart were gorged by semi-fluid blackish blood; that in the right ventricle exhibiting a film of fibrine on its upper surface. The valves were found healthy, excepting a very slight thickening of the aortic semilunar. Projecting into the cavity of the right auricle from its inner wall was seen a wrinkled parchment-like bag, about the size of a chesnut. Two openings were observed through it; the largest was a ragged rent in the centre, a small clot of blood still lying in it; the other, a smooth oval aperture, at one side of the former, large enough to pass an ordinary probe point through it. Its margins were tolerably thick, and so smoothed and bevilled as to show that it had existed some time, and had formed a time-worn passage between the aorta and auricle. Looking into the aorta, the opening into this aneurismal sac was seen just above the internal semilunar valve. Above this the aorta had dilated into two smaller parchment-like projections, and these were seen from without. The microscope showed a considerable amount of fatty deposit between and within the muscular fibres of all parts of the heart. The aorta was lined by a thick, rough, atheromatous deposit, white in colour, with specks of bone here and there. Fat cells were the main constituent of this deposit. The aneurismal dilatations exhibited the same structure. The liver also was very large and fatty. The kidneys were healthy, but, like all the other viscera, immensely injected. This man had been wont to show his strength by carrying on his back two sacks of flour at the same time. Finding that on a former occasion he had been under Dr. G. A. Rees, of Artillery-place, Finsbury, and anxious to know whether any special stethoscopic signs had been observed connected with the heart, Dr. Hawksley had written to Dr. Rees, and was informed, in reply, that there was a distinct, but not loud, systolic bruit. In reference to the other specimen, Dr. Hawksley said, that the lady, aged 33, from whom they came, had imagined, four months ago, that she was three months advanced in the family way, in consequence of the existence at that time of all the ordinary signs; but then a sanguineous discharge commenced, which had continued, in greater or less degree, during the four months, up to the time when these hydatids were expelled. On that day she had been to Dr. Hawksley to ascertain what her condition actually was. He found it was not pregnancy, but that the uterus contained something, probably a polypus. The os uteri presenting a very flaccid, spongy, and unhealthy appearance, he applied nitrate of silver to it. The same day violent flooding came on, and the hydatids were expelled, since which she has quite recovered. The hydatids were found to consist of membrano-gelatinous bags, about the size of currants, containing an albuminous fluid. They were connected to each other by little stalk-like filaments, one at each end, forming together short, chain-like rows. The microscope exhibited a gelatinous stroma full of granules, and some fibrous appearances. Drawings made by Dr. Sturt were shown.

Mr. Taylor read a paper

ON THE MODUS OPERANDI OF MERCURY IN THE CURE OF ASIATIC CHOLERA.

The author, after giving a brief sketch of the history and progress of the disease from the shores of India towards Europe, proceeded to prove its communicability by human intercourse; and, while admitting the epidemic origin of cholera, he argued from illustrative cases that it was from the living and not from the dead body that the source of propagation was derived, and that the alimentary canal afforded the materials; that the materies morbi, by accidentally contaminating food or drink, became conveyed into the stomach and bowels, and formed the primary cause of the attack; that the excessive purging and vomiting consisted of the serous portion of the blood; and that this drain to the system was sufficient to account for all the consequent general symptoms. The author insisted, that there was no evidence of a blood poison until the symptoms of collapse had been fully developed, when the function of the kidneys had ceased, and the effete matters, being no longer eliminated, were retained and absorbed, and the blood poisoned thereby; and fever, with coma, were the consequences. Of the pathological condition, as verified by dissection, the author differed from most preceding writers with regard to congestion or inflammation, which latter he considered to be the result of gravitation of the red particles of the blood after the loss of the serum; this treatment was founded on what he considered an established fact, viz., that dysentery was antagonistic to cholera; he recommended the exhibition of the chloride of mercury, in doses of one grain every ten minutes, according to the method of Dr. Ayre, of Hull, with the bichloride as an injection three or four times a day, in the proportion of one grain to eight ounces of distilled water, until a mucous or dysenteric stool is produced, which he denominated the "mercurial stool." This condition, indicative of subacute muco-enteritis, having been established, acts as a barrier to the further discharge of serum, and thus arrests the disease. The author also pointed out that period of the disease in which

the exhibition of opium was most proper and beneficial, and which he limited to the early stage, before the hands and feet had become of a mahogany or blue colour, and before the collapse had set in; and concluded by noticing the remarkable success which had attended the mercurial plan of treatment in his practice.

A discussion ensued, in which Mr. Pilcher, Dr. Daniell, Dr. Sibson, Dr. Norton, Mr. Rogers Harrison, Dr. Griffith, Mr. Clark, Dr. Routh, and the author, took part. Great discrepancy of opinion prevailed, as invariably happens in all discussions on cholera. As, however, nothing was elicited of a novel or important nature, or any information given calculated to dispel the darkness which envelopes this terrible malady, we may well be excused from giving the particulars of a discussion relative to so exhausted a subject.

The Society adjourned at half-past nine.

The following is a short abstract of Dr. Forbes Winslow's address to the Medical Society of London upon his assuming the Presidential chair. We regret that the great demands upon our space this week prevent us from publishing the address entire.

"Elected by your kind suffrages to the office of President of the Medical Society, it now devolves upon me, when entering upon the performance of my official duties, to tender to the Fellows my warm and sincere acknowledgments for the high distinction they have thus conferred upon me. I should, indeed, prove myself unworthy of the honour, if I were not to entertain a lively appreciation of the kind feelings which have been manifested towards me in placing me in this chair. Can it be otherwise than gratifying to my mind to occupy the high position that has been sustained during the earlier period in the history of our Society, by the truth-seeking, the philosophic Lettsom, the benevolent Fothergill, the universally esteemed and venerable Clutterbuck, and the

> "'Immortal Jenner, whose gigantic mind
> Brought life and health to nearly half mankind;'

the shining lights of former epochs, the distinguished physicians and philosophers of the era in which they flourished. I maintain it to be no light distinction to be called upon by your kindness to succeed in this chair men who were respected and beloved by all, and reverenced as the great and noble benefactors of the human race. It is impossible to over-estimate or exaggerate the importance of a Society like the one with which we have the honour to be associated. Apart from the great advantages resulting from the frequent unison of medical men, producing a community of sentiment, exciting a spirit of honourable emulation, destroying all acerbity of feeling, it has other, and perhaps higher, claims to our consideration and support. We meet here for the promotion of one common object, viz., the noble and exalted pursuit of truth,—to advance our knowledge of the most efficient means of arresting the march of disease, alleviating suffering, and promoting the duration of human life. This is not the arena for the mere display of the higher flights of oratory, or for the practice of the graces of elocution. We do not assemble here to prove how dexterously and easily we can trip up an adversary, or with what facility we can detect fallacies in the argument of an opponent. We do not meet in this room, like counsel in a court of law, each with his separate brief and specific instructions, predetermined to enforce a particular line of argument, irrespectively of the truth of the cause or principles he is advocating. No! the discovery of the truth is the great, the exclusive, the ostensible object of our discussions: it is the sole bond of our union, the spirit of our fraternity, the common battle-ground upon which we unfurl our banner and take our stand." Dr. Winslow then proceeded to speak of the retarding influence of "false facts" on the practice of medicine, of the proper mode of estimating the effects of drugs, of the errors into which those fall who, neglecting the principles of inductive and logical reasoning, allow themselves to be guided by mere empirical experience; and concluded: "I have ventured, gentlemen, thus cursorily to refer to one or two points of great interest connected with the legitimate object of our weekly associations in this room. I sincerely trust, that, influenced by a love of philosophic truth, actuated by one noble purpose, combined for the promotion of one great object, pursuing the same rugged path, and all tending towards the same goal, it may be our happiness, at the close of an eventful and useful career, to glance retrospectively upon the past with feelings of honourable pride and pleasure. Again thanking you for the high distinction conferred upon me, I sincerely hope, that, when the time has arrived for me to return into your hands the responsible office entrusted to my care, I may have the gratification of feeling that I have neither been neglectful of your interests nor have merited your displeasure."

THE ABERNETHIAN SOCIETY OF ST. BARTHOLOMEW'S HOSPITAL.

SEROUS APOPLEXY.

By ARTHUR H. SANKEY, Esq.

The two following cases seem to be examples of serous apoplexy, called by some "hyperacute hydrocephalus." This last term is a bad one, for it implies an inflammatory affection. Serous apoplexy appears to be no more than an acute dropsy, not the result of inflammation as is the effusion of acute hydrocephalus; but, like that form of hydrothorax which is unpreceded by pleurisy, the effect of simple congestion. A mere dropsy, however, does not constitute serous apoplexy, for cases are not rare in which an accumulation of serum in or beneath the arachnoid is found after death, which caused no apoplectic symptoms during life, and which, though not distinguishable after death from an acute effusion, was probably chronic in its nature, the result, perhaps, of slight and repeated congestion, or due to atrophy of the brain. To constitute a serous apoplexy there must be apoplectic symptoms during life; and, after death, effusion of serum into the brain and its membranes must be the chief morbid appearance.

Case 1.—Thomas Lee, aged 48 years, a drayman, of intemperate habits was admitted into Mark Ward, under Dr. Hue, on July 5, 1852, at about 5¾ p.m. He had been about his work, and was apparently well till 5 p.m., he then fell off his dray when at Islington, was picked up insensible, and brought into St. Bartholomew's Hospital. On his admission he was quite insensible, continually rolled his head about, but did not move his limbs; these, if lifted, immediately dropped powerless. His face was congested, the lips livid, pupils much contracted, no arcus senilis. There were marks of bleeding from his nose. No signs of his having vomited. There was a disagreeable smell, as if his sphincters had been relaxed. He groaned a good deal, his breathing was stertorous and accompanied by a mucous râle. Pulse very small and weak. He was unable to swallow. On removing his clothes, it was found that he had passed both urine and liquid fæces into them. He then vomited twice slightly. The bowels were constantly open, the evacuations copious and very relaxed. Cupping to the temples was ordered. While he was being cupped, his arms moved across his chest, the breathing became slower, the mouth fell slightly open, the tongue was slightly protruded, and he ceased to breathe at about 9 p.m. An artery was divided in the cupping. Blood continued to flow from it long after respiration had ceased. The body was examined 14 hours after death. Blood was still flowing from the incisions made by cupping. Rigidity was everywhere firm, and the hands were tightly clenched. On removing the vault of the cranium, much fluid escaped. The membranes were healthy, and not congested. In the sac of the arachnoid was an enormous quantity of blood-stained serum, much of which escaped on dividing the dura mater, but enough remained to fill the fossæ at the base of the cranium, as high as the tentorium, after the brain had been removed. The brain was soft and watery; the convolutions not flattened. The ventricles were not distended, and their lining membrane was smooth and entire. The cerebral vessels were quite healthy. The longitudinal sinus was empty, and the others contained watery blood. The heart was flabby; the lungs emphysematous anteriorly; the kidneys congested. In other respects all the viscera appeared to be in a normal state: The blood was generally fluid and watery. The second case I did not myself see during life, but the following is the account I obtained:—

Case 2.—Mary Anne Andrews, aged 10 years, was admitted into Hope Ward, under Dr. Hue, between 10 and 11 a.m., on Sept. 17, 1852, in a state of complete unconsciousness, from which she did not rally, but was frequently convulsed, and died at a quarter past eleven a.m. Her father stated, that she was always sallow, but tolerably healthy; that she had suffered from a cough for some time past, and three days before her admission, accidentally fell down and bruised her forehead. She was not much affected by the fall, and seemed quite well and lively afterwards. When she got up in the morning of the 17th, she complained of headache, but was well enough to eat her breakfast, and afterwards to go out and help her father at his work. While out, at about ten a.m., she suddenly vomited, fell down in convulsions, her right cheek being more convulsed than any other part, she was quite unconscious, and was immediately brought to the hospital. Her body was examined four hours after death. It was well nourished; the lips and hands were dusky. Frothy mucus was flowing from the right nostril. On the forehead, to the right of the mesial line, was a bruise; the skin was broken in its centre. Rigidity was everywhere firm. In the scalp was an ecchymosis, but not extending through its

substance, corresponding to the bruise. The skull was congested. On removing its upper portion a good deal of blood escaped. The dura mater was vascular. In and beneath the arachnoid was a large quantity of fluid. The vessels of the pia mater seemed unusually numerous, and were very full and tortuous. The brain was very vascular. The grey matter was of a pink colour, especially in the corpora striata. In the centra ovalia blood started up, so as to form numerous red points. The brain substance was generally soft and œdematous. On making pressure, serum exuded from it. The ventricles were distended with serum, and their lining membrane was faintly granular. No trace of any tubercle or other morbid growth could be detected. The cerebral arteries were healthy. The sinuses, except the longitudinal, contained fluid blood. On the visceral layer of the pericardium, at the apex, was a small tuft of organised lymph. The heart and vessels were healthy. The blood was generally fluid. In the right pleura were several old adhesions; in one of these tubercular matter was deposited. Scattered over the visceral layer were several miliary tubercles, surrounded by vascular zones. Left pleura healthy. Scattered throughout the substance of the lungs were numerous collections of granular tubercle. In the upper lobe of the right lung was a mass of cheesy tubercle as large as an almond, surrounded by a vascular zone, and environed by tubercular granules. The pulmonary vessels were healthy. The mucous membrane of the bronchi rather vascular. One bronchial gland on the right side was as large as a damson, and infiltrated with firm yellow tubercular deposit. On the peritoneal covering of the diaphragm were two hard white masses of the size of a hemp seed. Liver healthy, but congested. Spleen firm, of a dark crimson colour. On its surface and in its substance were a few firm, hard, yellow deposits, like millet seeds, unconnected with its proper tissue. Pancreas healthy. Stomach healthy. Small intestines firm and contracted, of a pinkish colour, quite free from tubercle. Mesenteric glands enlarged, some to the size of hazel nuts, in their substance was a firm yellow deposit. Large intestines healthy, free from tubercle; the glandulæ solitariæ were prominent. Kidneys generally congested, in other respects normal. Ureters and bladder healthy. Spinal cord healthy, of firm texture. Its membranes were also healthy; the vessels of the pia-mater rather full posteriorly.

Remarks.—In both these cases apoplectic symptoms came on suddenly during life. There was no history of previous brain disease. After death, in the first case, serous effusion only was found; in the second it also occurred, and was accompanied by congestion. The first question to be considered is, whether the coma is due to the effusion, or to a probably preceding congestion? Almost certainly it is due to congestion. For, by the analogy of other dropsies, it seems impossible that any can be so acute as to induce sudden coma, or can occur without previous congestion. That no vascular fulness was observed after death in the first case, is accounted for by the time during which the divided vessels of the scalp had been bleeding,—no less than fourteen hours. And, though it seems certain that the cause of the coma is congestion, it does not follow that its persistence is also due to it. In proportion to the effusion of extra-vascular fluid may the fulness of the vessels subside without the pressure on the brain being removed. In these also, as in all cases of apoplexy, due importance must be given to the circulation of imperfectly aërated blood. The link wanting in the first is supplied in the second case; the brain and its membranes being congested, as well as œdematous, from the effusion of serum. In the second case, as in the first, the patient was at work till she suddenly became unconscious. The cerebral congestion could not have occurred, therefore, till then. Still less could the effusion by which the distended vessels were partly relieved. That the effusion of serum was less in the second than in the first case is not strange, as death ensued so much sooner. It seems that both serous and sanguineous apoplexy arise from the same cause, from cerebral congestion. If this be so, an interesting point to examine is, what the circumstances are which favour the occurrence of one rather than of the other? In both these cases, the arteries of the brain were healthy. In most cases of sanguineous apoplexy they are diseased; and, when they seem to be healthy, the capillaries are generally affected by fatty degeneration. In the first of these two cases, the capillaries were quite healthy. I did not examine them in the second; but, considering the age of the child, it is unlikely that they were degenerate. May it not be, that when the cerebral vessels are healthy and unweakened, serous effusion will be the result of a congestion, which, under opposite circumstances would have caused extravasation through their rupture? The two chief objections that have been made against this view of the pathology of serous apoplexy, are—1. That as the quantity of fluid effused bears no fixed proportion to the severity of the symptoms, it seems unlikely that the effusion can be the cause of the apoplectic symptoms. I have already said that congestion is most probably the origin of the coma, though its persistence may be due to the effusion. The amount of effusion may be in inverse ratio to the amount of congestion, and the predominance of one or the other may be much influenced by the rapidity of death. Another point not to be lost sight of, is, that though part of the effusion may be acute, it is not necessarily so entirely, for this form of apoplexy may occur in one who has had for a long time an accumulation of fluid in his cranium, either from atrophy of the brain, or perhaps from repeated congestions, none of which, till the last, had been severe enough to cause apoplexy. 2. It has been urged that the pressure required to induce a pouring out of fluid within the cranium must be enormous; but it cannot matter whether the superabundant fluid be within or without the vessels; the pressure was required to produce the congestion, not the dropsy. One other point may be noticed. In serous apoplexy, at least in these two cases, the cerebral convolutions are not flattened as in simple or sanguineous apoplexy. The reason of this is plain. In simple and sanguineous apoplexy the skull is the compressing agent; it can only repress inwards the swollen brain; but fluid can press equally in all directions, between as well as upon the convolutions.

APOTHECARIES' HALL.

PRELIMINARY EXAMINATION IN CLASSICS AND MATHEMATICS.

The following is the paper given to the candidates at the first day's examination in classics and mathematics at Apothecaries' Hall. The *viva voce* examination took place the next day.

TUESDAY, MARCH 15, 1853.

Written Examination.

Gospel of St. Mark. Chap. IV. Verses 30, 31, 32, 33, 34. Translate the following:—

Καὶ ἔλεγε, Τίνι ὁμοιώσωμεν τὴν βασιλείαν τοῦ Θεοῦ; ἢ ἐν ποίᾳ παραβολῇ παραβάλωμεν αὐτήν; ὡς κόκκῳ σινάπεως, ὃς, ὅταν σπαρῇ ἐπὶ τῆς γῆς, μικρότερος πάντων τῶν σπερμάτων ἐστὶ τῶν ἐπὶ τῆς γῆς· καὶ ὅταν σπαρῇ, ἀναβαίνει, καὶ γίνεται πάντων τῶν λαχάνων μείζων, καὶ ποιεῖ κλάδους μεγάλους, ὥστε δύνασθαι ὑπὸ τὴν σκιὰν αὐτοῦ τὰ πετεινὰ τοῦ οὐρανοῦ κατασκηνοῦν. Καὶ τοιαύταις παραβολαῖς πολλαῖς ἐλάλει αὐτοῖς τὸν λόγον, καθὼς ἠδύναντο ἀκούειν· χωρὶς δὲ παραβολῆς οὐκ ἐλάλει αὐτοῖς· κατ' ἰδίαν δὲ τοῖς μαθηταῖς αὐτοῦ ἐπέλυε πάντα.

Homer. Iliad. Book I. Translate the following:—

Τὸν δ' ἠμείβετ' ἔπειτα Θέτις, κατὰ δάκρυ χέουσα·
Ὤ μοι, τέκνον ἐμὸν, τί νύ σ' ἔτρεφον αἰνὰ τεκοῦσα;
Αἴθ' ὄφελες παρὰ νηυσὶν ἀδάκρυτος καὶ ἀπήμων
Ἧσθαι· ἐπεὶ νύ τοι αἶσα μίνυνθά περ, οὔτι μάλα δήν·
Νῦν δ' ἅμα τ' ὠκύμορος καὶ ὀϊζυρὸς περὶ πάντων
Ἔπλεο· τῷ σε κακῇ αἴσῃ τέκον ἐν μεγάροισι·
Τοῦτο δέ τοι ἐρέουσα ἔπος Διὶ τερπικεραύνῳ
Εἶμ' αὐτὴ πρὸς Ὄλυμπον ἀγάννιφον, αἴ κε πίθηται
Ἀλλὰ σὺ μὲν νῦν, νηυσὶ παρήμενος ὠκυπόροισι
Μήνι' Ἀχαιοῖσιν, πολέμου δ' ἀποπαύεο πάμπαν.
Ζεὺς γὰρ ἐπ' Ὠκεανὸν μετ' ἀμύμονας Αἰθιοπῆας
Χθιζὸς ἔβη μετὰ δαῖτα· Θεοὶ δ' ἅμα πάντες ἕποντο.

1. What are the different meanings of the verb πανω in its active, passive, and middle forms? Illustrate your answer by reference to other Greek verbs where the same differences are indicated by analogous forms.

2. Give the present, the first future, and the first aorist of the following verbs:—ὁμοιωσωμεν, παραβαλωμεν, σπαρῃ, ποιει, κατασκηνουν, ελαλει, επελυε, ημειβετο, ετρεφον, τεκον, μηνι, αποπαυεο, δυνασθαι, ακουειν.

Virgil. Georgics. Book I. Translate the following:—

Ante Jovem nulli subigebant arva coloni:
Nec signare quidem, aut partiri limite campum
Fas erat: in medium quærebant: ipsaque tellus
Omnia liberiùs, nullo poscente, ferebat.

Ille malum virus serpentibus addidit atris,
Prædarique lupos jussit, pontumque moveri,
Mellaque decussit foliis, ignemque removit,
Et passim rivis currentia vina repressit:
Ut varias usus meditando extunderet artes
Paulatim, et suleis frumenti quæreret herbam,
Et silicis venis abstrusum excuderet ignem.
Tunc almos primùm fluvii sensere cavatas:
Navita tum stellis numeros et nomina fecit,
Pleiadas, Hyadas, claramque Lycaonis Arcton.
Tum laqueis captare feras, et fallere visco
Inventum, et magnos canibus circumdare saltus.

1. Write out the words in the above passage which are derived from the Greek language.

2. Why are the verbs in the first four lines in the imperfect tense?

CICERO. ORATION AGAINST CATILINE.

Sed tu ut vitiis tuis commoveare, ut legum pœnas pertimescas, ut temporibus reipublicæ cedas, non est postulandum: neque enim, Catilina, is es, ut te aut pudor à turpitudine, aut metus à periculo, aut ratio à furore revocârit. Quamobrem, ut sæpe jam dixi, proficiscere: ac si mihi inimico, ut prædicas, tuo conflare vis invidiam rectà perge in exsilium: vix feram sermones hominum, si id feceris: vix molem istius invidiæ, si in exsilium ieris jussu Consulis, sustinebo: sin autem servire meæ laudi et gloriæ mavis, egredere cum importuna sceleratorum manu; confer te ad Manlium, concita perditos cives: secerne te à bonis: infer patriæ bellum: exsulta impio latrocinio: ut à me non ejectus ad alienos, sed invitatus ad tuos îsse videaris.

Write the present, the præterperfect, and the supine (when it exists) of the following verbs: subigebant, quærebant, addidit, jussit, decussit, removit, repressit, extunderet, excuderet, sensere, fecit, captare, fallere, circumdare, pertimescas, cedas, proficiscere, prædicas, perge, sustinebo, egredere, secerne.

EUCLID. BOOK I.

If one side of a triangle be produced, the exterior angle is greater than either of the interior opposite angles.

ALGEBRA.

Divide $a^4 + a^2b^2 + b^4$ by $a^2 - ab + b^2$.

$$\left.\begin{aligned} 3x + \frac{7y}{2} &= 22 \\ 11y - \frac{2x}{5} &= 20 \end{aligned}\right\} \text{ to find } x \text{ and } y.$$

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS.—The following gentlemen having undergone the necessary examinations for the diploma, were admitted Members of the College at the meeting of the Court of Examiners, on the 11th inst.:—

ALLINSON, JOHN, Penrith, Cumberland.
BEAUMONT, ROBERT W., Royal Navy.
BAILLIE, G. O., Hon. East India Company's Service.
EVANS, WILLIAM, Ystradyfodwg, Glamorganshire.
GIRAUT, WALTER MOSES, Army, Jersey.
GRUNDY, ROBERT, St. Helen's, Lancashire,
GREENE, JOHN BAKER, Dublin.
HERBERT, CHARLES JAMES, Bedworth, Warwickshire.
SHEPHEARD, JOHN, Erpingham, Norfolk.
SCUDAMORE, GEORGE, Melbourne, Australia.
SHIELL, CHARLES AUGUSTUS, Clonmel, Tipperary.
YOUNGER, JOHN THOMAS, Newcastle-upon-Tyne.

NEW FELLOWS.—The following Members of the College were admitted to the fellowship, by election, at a Meeting of the Council, on the 10th inst.:—

BARNES, A. B., Manor-place, Chelsea, Diploma of Membership, dated Jan. 27, 1826.
BATT, F. C., Abergavenny, May 22, 1835.
BEVAN, W., Ardwick, Manchester, Feb. 28, 1834.
BIRMINGHAM, G., Morton-villas, Kentish-town, June 26, 1829.
BREWER, J., Newport, Monmouth, April 1, 1825.
BROOKS, J. H., Henley-on-Thames, June 2, 1826.
BROADBENT, R., Altrincham, May 3, 1816.
BUCHANAN, A., Commercial-road-east, March 5, 1830.
DEHANE, E. F., Wolverhampton, Jan. 26, 1827.
DUFFIN, E. W., Langham-place, Dec. 24, 1830.
FARRANTS, R. J., Regent-terrace, City-road, Dec. 7, 1832.
HAMMOND, T. M., Manor-terrace, Brixton, Aug. 6, 1819.
HARGRAVES, J., Tunbridge-wells, Oct. 31, 1833.
HARVEY, W., Soho-square, Sept. 3, 1830.
HILLIARD, J., Hon. E.I.C.S., Bengal Presidency.
HOLROYDE, J., Halifax, Yorkshire, March 2, 1830.
JEPSON, H., Hampton, Dec. 3, 1819.
MITCHELL, J. T., Percy-place, Clapham-road, Nov. 3, 1820.
NICOLL, C. R., Grenadier Guards, May 26, 1837.
PARKES, W. B., Great Marlborough-street, July 25, 1836.
PHILLIPS, J., Bridgnorth, Jan. 31, 1834.
ROWLAND, W., Wrexham, Feb. 15, 1833.
TROUSDALE, W. M., West Butterwich, Lincoln, Oct. 27, 1837.

At the same meeting, Messrs. W. G. GOADY, a member of the Royal College of Surgeons, Ireland, May 23, 1837, and G. H. LOVE, a Licentiate of the Royal College of Surgeons, Edinburgh, March 19, 1850, were admitted *ad eundem* members of the Royal College of Surgeons of England.

THE COLLEGE LECTURES.—Professor Owen will commence his annual course of lectures in the new theatre of the Royal College of Surgeons on Tuesday next. (*For Synopses see page* 291.)

APOTHECARIES' HALL.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, 10th March, 1853:—

BLAKE, JOSEPH ROBERT WM. HOWARTH, Birmingham.
BLANCHARD, THOMAS COLLYNS, Malvern.
CHAPLIN, THOMAS, Lewes, Sussex.
ELY, JOHN JAMES, Chatham, Kent.
HAY, WILLIAM HENRY, Bridport.
LEAK, ALEXANDER PIOZZI, Over, Cheshire.
MORLEY, EDWARD SWORD, Blackburn.
PERRY, MARTEN, Ledbury.
WILLINGTON, FREDERICK ARTHUR, Birmingham.

Names of gentlemen who passed the Preliminary Examination in Classics and Mathematics, on March 16, 1853:—

ALLEN, JOSIAH, Kidderminster.
BARKER, GEORGE, London.
BENNETT, E. A., Whalley.
BRICKWELL, J., Sawbridgeworth.
BROWN, G. B., London.
BUCHANAN, ALBERT, London.
BUTLER, S. E. R., London.
CARTER, ALFRED, London.
COOLEY, W. L. J., Wrexham.
DANIELL, G. W., Blandford.
EARLE, E. SEPTIMUS, London.
FLEISCHMANN, —, Stafford.
FOX, SAMUEL J., Falmouth.
GAFFNEY, W. C., Buntingford.
GALTON, E. H., London.
GREEN, C., Brixham.
HARRIES, G. J., Bath.
HARVEY, C. H., London.
HEAD, R. L. B., Falmouth.
HELE, N. F., Kingsbridge.
HOGG, F. R., London.
HORE, F. S., Clifton.
INCE, E. L., London.
JAMES, M. P., Hackney.
JEPHCOTT, S. T., Birmingham.
JEPHSON, G. J., Hampton.
KIRK, WM., Hedon, Yorkshire.
M'DOUGAL, A. M., London.
MAJOR, H. P., Hungerford.
NEWINGTON, R. S., Gondhurst.
OLIVER, JAMES, London.
PARRY, H. H., Stonehouse.
PEPPER, HENRY C., Martock.
PERCIVAL, J. M., Scilly Islands.
POTTLE, J. R., London.
RAND, JOHN, Great Boddau.
REED, FREDERICK, London.
ROBERTS, JAMES, Truro.
SHUTTLEWORTH, R., London.
SIMPSON, FRANCIS, York.
SKARDON, T. G., London.
SMITH, W. A., Aylsham.
TRACEY, H., Dartmouth.
TUCK, H. F., London.
WADDELL, R. W. T., Stafford.
WARE, W. D., Barnstaple.
WARD, J. D., York.
WESTON, E. G., Salop.
WHITEFIELD, A., Barnstaple.
WILLIAMS, C., Carnarvon.

APPOINTMENTS.

MEDICAL.—Mr. Mercer, late of Uxbridge, has been elected House-surgeon to the Essex and Colchester Hospital, in the place of Mr. Thomas Taylor, resigned.

MILITARY.—56th Foot: Assistant-Surgeon John Harry Ker Innes, from the Staff, to be surgeon, vice Ryan, deceased. 82nd Foot: Assistant-Surgeon William Stewart James Horne Munro, M.D., from the 93rd Foot, to be assistant-surgeon, vice Boyce, deceased. 93rd Foot: Eugene Dudley Ross O'Neill, gent., to be assistant-surgeon, vice Munro, appointed to the 83rd Foot. 1st West India Regiment: Robert Speedy, gent., to be assistant-surgeon, vice M'Arthur, appointed to the Staff.—Hospital Staff: Assistant-Staff Surgeon William Freeman Daniell, M.D., to be Staff-surgeon of the second class, vice Mostyn, appointed to the 2nd West India Regiment. Assistant-Surgeon Alexander M'Arthur, M.D., from the 1st West India Regiment, to be assistant-surgeon to the Forces, vice Agar, deceased. Arthur Guy Elkington, gent., to be assistant-surgeon to the Forces, vice Innes, promoted in the 56th Foot.

Naval.—Assistant-Surgeon Charles Harper (1850) recently serving in the Phaeton, 50, to the Impregnable flag-ship at Devonport, for service in the Royal Hospital, Plymouth, in the room of Josiah Austen, appointed to the Winchester, 50, flag ship on the East Indies station. Surgeon Charles Ede (1851), to the Espiegle, 12, at Sheerness.

DEATHS.

Orfila.—March 12, at Paris, M. Orfila, after a severe illness, aged 70.

Zapfle.—M. Zapfle, one of the most distinguished students of the Paris Hospitals, fell a victim, last week, to purulent infection, the result of a wound received during dissection.

Bequests.—Sir R. Colt Hoare, of Stourhead, Wilts, has given 500*l.* to the Teignmouth and Dawlish Infirmary; 500*l.* to the Salisbury Infirmary; and 500*l.* to the Western Institution, Torquay. His sister, Miss Hoare, has left a legacy of 100*l.* to the Teignmouth and Dawlish Infirmary.

Fothergillian Medal.—The Fothergillian Gold Medal for the best Essay on wounds and other injuries to the abdomen, has been awarded to Alfred Poland, Esq., Assistant-surgeon to Guy's Hospital.

King's College.—A large meeting of the former and present medical students of this institution was held on the 14th inst., in the theatre of the College, to consider the propriety of presenting Dr. Robert Bentley Todd, F.R.S., Fellow of the Royal College of Physicians, etc., with an address and testimonial, on the occasion of his resignation of the Professorship of Physiology. Dr. Tanner having been called to the chair, explained the objects of the meeting, remarking upon the great zeal and ability with which the Professor had discharged his duties for the long period of seventeen years. "The idea of presenting a testimonial at this time," said Dr. Tanner, "has originated with the present medical students of the College, and I hope they will allow me to say, that the suggestion does them infinite honour. On the part of the old students, and as one of them, I may remark, that they will join most cordially in carrying out the resolutions which may be adopted; for, since it is impossible to forget those instructions to which we feel permanently indebted, so is it equally impossible ever to be unmindful of the value and excellence of the person who gave them." Several resolutions were then proposed and carried, and a Committee formed to adopt the best means for carrying out the motion, "That a testimonial be presented to Dr. Todd."

Medical Benevolent College.—We have much pleasure in stating that the proceeds resulting from the Bishop of London's able advocacy of the claims of the College on Sunday last, in Trinity Church, St. Marylebone, amounted to 85*l.* His Lordship, in speaking of the casualties to which medical men are daily exposed while exercising their onerous duties, alluded to the lamented death of the late Dr. Manson, in evidence also of the public services of the profession, and of the necessity of establishing such an Institution for the amelioration of the distress so often consequent upon premature widowhood and orphanage.

Vaccination.—A Deputation on the subject of the Vaccination Extension Bill, including Dr. Babington, Mr. Marson, and Mr. Grainger, had an interview on Saturday last with Viscount Palmerston.

Parisian Medical Society.—The annual dinner of the members of this Society took place on Saturday the 26th February, at Véfour's Restaurant, 82, Palais Royal. Upwards of forty gentlemen were present, and among the company several of the leading members of the profession in Paris, including MM. Orfila, Ricord, Nelaton, Valleix, Briene de Boismont, and Verdeil, with members of the American, German, Spanish, and Italian schools. Of the non-professional gentlemen present, General Williamson may be mentioned. Dr. Harley, the President, officiated as chairman.

Liability of a Parent for Medical Attendance upon his Son.—Milbanke *v* Hillcock.—The plaintiff, a surgeon, of Burwood-place, Oxford-square, sought to recover 13*l.* of defendant under rather singular circumstances. The plaintiff stated, that defendant's son had left St. George's Hospital uncured with a stricture, upon which defendant applied to him to attend his son, saying he would be answerable for 4*l.* Having attended young Hillcock for several weeks, and finding that his complaint would take a long time to cure, he informed defendant that he could not further attend upon that agreement, and advised the son to again enter the hospital. This advice neither father nor son would listen to, and defendant said, "I cannot see my son die for want of attendance, and you must be as moderate as you can; and as I am a tradesman, I must request you to deal with me in your cheesemongery, and it will assist me in the expense. The stricture at last got so bad that he (plaintiff) obtained the assistance of the house-surgeon of St. George's Hospital, who formerly had the patient under his care, to perform an operation upon the son. He paid every attention, and was, after many patient and laborious trials, enabled to effect, he might say, a very surprising cure. He only charged 12s. 6d. per week, and for one whole year he attended the son gratis. As soon as his (plaintiff's) bill for cheesemongery amounted to 14*l.*, the defendant ceased, and refused to supply him any further, while his account amounted to 27*l.* Medical evidence was called to depose to the extreme moderateness of plaintiff's bill. Mr. Vaughan, for defendant, addressed the jury at great length, contending that the father was not liable for the son; and, further, that no such contract, as stated by plaintiff, had been proved, and called the defendant, who swore that the only contract he entered into was the first named for 4*l.* The jury inquired if they could reduce the plaintiff's demand. The judge said, certainly not, they must either give a verdict for all or none. The defendant was liable in law if the jury believed that he called in plaintiff's services, no matter whether it was his son or a stranger; and he could not conceive, after the evidence adduced, how the jury could consider the charges too high. Ultimately the jury found for the plaintiff.

Important to Parochial Vaccinators.—In the Marylebone County Court, on Friday, an action was brought by Mr. J. Butter Ashford, surgeon, of 48, Hertford-street, May-fair, to recover for attendance and medicine supplied; and a very important question arose as to the right of medical men to charge for vaccination of a parishioner's child, the operator being the parochial vaccinator. The sum charged by Mr. Ashford in this instance for vaccinating the defendant's infant was 10s. 6d. The defendant, after demurring to other items in plaintiff's bill, said, with regard to the charge for vaccination, the plaintiff had no legal claim. He was paid by the parish, and was bound to vaccinate gratis all children brought to him, or where he attended. The Judge asked defendant if he could point out any authority in support of his objection. The defendant admitted he was not prepared to do so, but added, that usage had made a law to support his objection, if the Vaccination Act did not supply a clause compelling medical men to vaccinate gratuitously. The fact of the plaintiff being called a free vaccinator, he contended, was sufficient to show Mr. Ashford was not entitled to this item in his account; and, if he were, he had no right to receive a salary from the parish when he charged parishioners for the operation. He also complained of the exorbitance of the charge, half-a-crown being the recognised fee. In answer to this, Mr. Ashford urged, that the Act empowering parishes to nominate and pay parochial vaccinators never contemplated free vaccination to parties not recipients of parochial relief, or who were in a position like the defendant. As to the charge, it was his usual fee. The Judge (Adolphus) said, he concurred with the plaintiff on the ground of expediency, that persons in defendant's position were not entitled to parochial vaccination. With respect to the charge, he thought it very high, and should deduct five shillings.

The Case of Mrs. Cumming.—About two years ago, as our readers are aware, a commission of lunacy was taken out against this truly unfortunate lady (as Lord Justice Knight Bruce very pathetically described her), and after an inquiry that lasted several days, the jury found that she was insane, and incapable of managing her own affairs. The costs of the proceeding amounted to several thousand pounds, which, of course, will have to be paid out of the estate. Soon after the verdict, an application was made to the then Lord Chancellor (Lord St. Leonard's) on the part of Mrs. Cumming, that she might be allowed to traverse, or set aside the inquisition and finding of the jury. The case was argued at considerable length on both sides; and on the 27th of March last the Lord Chancellor gave judgment, and, in doing so, said he had examined the alleged lunatic in his private room, and had represented to her the consequences that would result from granting her application, more particularly with reference to the very great additional expense which would thereby be incurred, and on that point he found her as rational and as sane as any person he had ever conversed with, and without making reference to any particular delusions under which she was said to labour, and relative to which he would not express any opinion, she appeared to him perfectly competent to judge whether she wished the traverse to be allowed or not. On that question she was evidently competent to form and express an opinion. She expressed her desire, that the traverse should issue, although he had informed her of the probable extent to which her property would thereby be perilled. She declared she was content to make any sacrifice, and submit to any terms by

which she might obtain liberty of action. She satisfied his mind that her present application was made of her own free will. His Lordship, in conclusion, said—"She is now 76 years of age, and it would be a reproach to both sides if any further expenses were incurred than what were absolutely necessary. Eight counsel had formerly been employed—five on one side, and three on the other. In order to lessen the future expenses, he would only allow two counsel on each side during the next inquiry." His Lordship then directed the traverse to issue. Since then the case has been frequently before the Court on "further directions" or "to be spoken to," and it was suggested at last that the parties would come to some arrangement; but at length it is decided that the case must go on, and it will do so until there is not a shilling of the unfortunate lady's property left to squabble about.

More Gems from Irish Poor-law Advertisements.—We lately called attention to two or three advertisements from Irish Unions requiring dispensary doctors and workhouse masters, in which a considerable contrast was presented by the emoluments and inducements held out to the respective candidates for these offices. Glancing through the same medium of advertisement, (the *Dublin General Advertiser*,) of March 12th, we were struck with the following notices, which, if taken in connexion with those we quoted recently, appear to warrant the conclusion, that some of the Irish Boards of Guardians are conducting a very careful series of experiments for the purpose of determining problems of maximum and minimum in connexion with Poor-law salaries. The contrast of emoluments presented in the last advertisements we cited, were 45*l.* (with apartments and first-class rations) for the master, and 55*l.* for the doctor. The first figure now, however, has been considerably augmented, while the latter has sensibly diminished, as the accompanying extracts will show. We quote those referring to the office of Master first, as this is now undoubtedly the more important of the two, being much better paid. "*Rathdown Union.—Master Wanted.*—The Board of Guardians of the Rathdown Union, will, on the 23rd of March instant, receive proposals from competent persons to fill the office of Workhouse Master at a salary of 60*l.* per annum, with first-class rations and apartments." In the next instance, however, we find a still greater augmentation of the integer Master's salary. "*Ballymahon Union.*—The Board of Guardians of the above Union will, at their meeting on Thursday, the 17th inst., proceed to elect a Master for the new workhouse, at a salary of 76*l.* per annum, with the usual apartments and rations." A very excellent situation, and we would strongly recommend any gentlemen who propose to become candidates for the appointment next on our list to think well on it, change their vocation, burn their diplomas, sell their books and instruments; in fine, "throw physic to the dogs," and use all the influence they can command to secure either of the above comfortable berths. The Listowel Union wants a dispensary doctor, at 1*l.* a week, nothing being said about first or even second class rations or apartments, or any allowance for even an ass to carry the weary son of Esculapius over the hills and bogs of Ballylongford in his visitations to the typhus patient, or the distant midnight call to a difficult labour. "*Listowel Union.*—Wanted, for the Ballylongford Dispensary District, in the above Union, a medical attendant; salary, 52*l.* per annum." Such contrasts as these need no comment.

Mortality Notabilia.—It is subject of regret that the public health, as measured by the rate of mortality, is still in a very unfavourable state. Since the third week of February, when it fell to 29·8°, the mean weekly temperature has continued to rise, having been successively 33·8°, 35·3°, and last week 44·6°. In the same periods the weekly mortality of London shows a constant increase, the deaths having been 1344, 1427, and, in the week that ended last Saturday, 1436. The deaths in the present return occurred at the following ages:—600 under 15 years, 466 at 15 years and under 60, 369 at 60 and upwards. In the ten weeks corresponding to last week of the years 1843-52, the average number of deaths was 1078, which, if raised in proportion to increase of population, becomes 1186. Therefore the excess of last week's mortality above the estimated amount is 250. Zymotic diseases and bronchial and pulmonary complaints in the aggregate have scarcely varied in the last two weeks in the amounts of mortality respectively ascribed to them. Under the former head the deaths in each return numbered 244, under the latter they were in the previous week 388, in the last 391. But fatal cases of hooping-cough increased from 56 to 79; those caused by phthisis were 160 and 167; pneumonia, after a sudden increase to 108, has again declined to 98, and the mortality of bronchitis, after remaining stationary during two weeks at 212, rose last week to 233. Seven deaths occurred between the 23rd of February and 7th of March in the London Fever Hospital.

DEATHS *in the Metropolis for the week ending Saturday, March* 12, 1853.

Causes of Death.	March 12. 0	15	60	All Ages.	Sum of Ten Weeks.
All Causes	600	466	369	1436	10782
Specified Causes	597	466	369	1433	10738
1. Zymotic (or Epidemic, Endemic, and Contagious) Diseases ...	186	40	18	244	1961
Sporadic Diseases:					
2. Dropsy, Cancer, and other Diseases of uncertain or variable seat ...	5	20	19	44	524
3. Tubercular Diseases	73	148	10	231	2030
4. Diseases of the Brain, Spinal Marrow, Nerves, and Senses ...	78	54	42	154	1287
5. Diseases of the Heart and Blood-vessels	...	32	25	57	395
6. Diseases of the Lungs and of the other Organs of Respiration ...	128	108	155	391	2106
7. Diseases of the Stomach, Liver, and other Organs of Digestion ...	29	25	14	68	607
8. Diseases of the Kidneys, etc. ...	1	18	7	26	123
9. Childbirth, Diseases of the Uterus	...	12	1	13	95
10. Rheumatism, Diseases of the Bones, Joints, etc.	2	6	2	10	68
11. Diseases of the Skin, Cellular Tissue, etc.	1	2	2	5	13
12. Malformations	4	...	...	4	30
13. Premature Birth and Debility ...	35	...	...	35	234
14. Atrophy	27	4	5	36	193
15. Age	...	...	57	57	635
16. Sudden	5	1	1	7	100
17. Violence, Privation, Cold, and Intemperance	23	16	11	51	337
Causes not Specified	3	...	...	3	44

TO CORRESPONDENTS.

A Constant Reader.—We believe that the Proprietors of the "Illustrated News," are the parties who are placarding London with pictures of "Old Parr's House."

F. R. S.—Many thanks for the kind expression of your satisfaction. Your request has been attended to.

We beg to inform *Mr. Harris*, of Redruth, Cornwall, that if we took care of all the papers forwarded to us, we should require a mansion to put them in. The newspaper sent in September last has been destroyed in the ordinary course of business.

Will *Dr. Letheby* favour us with a letter for publication. His facts are very interesting.

The Rev. Mr. M'Leod's request shall be attended to.

Mrs. Kendall, Lynn, Norfolk.—The postage-stamps shall be forwarded to Mr. Millman, Surgeon, New Galloway.

Dr. Coppinger's paper has not been overlooked, and shall be attended to in due course.

The Rev. E. W. Barlow's letter has been returned to him.

Three Pupils will see that their request has been anticipated. We understand that the subjects for examination for the year 1853-4 are not yet fixed.

W. M. K.—The omission of a gentleman's name in the Medical Directories is not sufficient evidence of his being unqualified.

Rex.—Your complaint probably depends upon disorder of the general health. Any physician is capable of treating your complaint.

A Fifteen Years' Subscriber will find an explanation of the phenomena of the so-called science in the last edition of Dr. Carpenter's Principles of Human Physiology.

A Subscriber, Ulverston, Lancashire.—A full account of the diseases of the hip joint will be found in Chelius's Surgery, translated by Mr. South.

COMMUNICATIONS have been received from—

Joseph Toynbee, Esq., 18, Savile-row; Dr. F. H. Ramsbotham, Portman-square and the London Hospital; Dr. Alexander Wilson, 115, Upper Moss-lane, Manchester; H. Harris, Esq., Redruth, Cornwall; The Rev. Mr. M'Leod, Stoke-Newington; Mrs. Kendall, Lynn, Norfolk; G. J. Guthrie, Esq., Berkeley-street, Piccadilly: James J. Coppinger, Esq., M.D., Queenstown; Dr. Letheby, London Hospital; A Third Year's Student; John Widlin, Esq., and Alexander Harvey, M.D.; Dr. Sandeman; W. M. K., Brighton; Dr. L. Finlay, Esq., Southampton; Dr. Arnott, 16, Upper Gloucester-place, Dorset-square; Dr Forbes Winslow; The Surgeons of the Bishop-Stortford Union; the Rev. E. W. Barlow: J. R. Pretty, Esq., Bayham-terrace.

ORIGINAL LECTURES.

LECTURES

ON THE ACUTE SPECIFIC DISEASES.

BEING THE GULSTONIAN LECTURES.

DELIVERED AT

The Royal College of Physicians.

By WILLIAM JENNER, M.D. Lond., F.R.C.P.

Professor of Pathological Anatomy, University College; Physician to the Hospital for Sick Children, etc.

Lecture II.

[Continued from page 288.]

C—Such, then, being the essential and determining causes of the modifications of the acute specific diseases, I have now to pass in review briefly some of the varieties of these diseases which result from the influence of these causes.

Small-pox.—I have already remarked, that the deviation from the type of small-pox in the confluent variety is due to the extent and severity of the specific local process.

Symptomatologically considered there are three, and pathologically considered two, distinct varieties of small-pox included under the term "malignant small-pox."

In the first symptomatological variety, the severity of the general specific disease is evidenced by the patient dying before any local disease whatever is established.

In the second, the severity of the general specific disease is manifested by the softened state of the solids, and the ready solubility of the organised elements of the blood; the effects of which are hæmorrhage from innumerable small vessels in various parts of the body, the effusion of serosity dyed red by dissolved hæmatosin, and diminution of muscular power, cardiac as well as voluntary. The cerebral functions in these cases are often unimpaired.

While the third variety is characterised by so-called typhoid symptoms; *i.e.*, by frequent pulse, dry and brown tongue, low delirium, and great prostration,—characters which it owes either to the severity of the general affection,—for they are sometimes present when the pustules are few in number and distinct,—or to the presence of severe local complications. Thus, in a case I witnessed of this kind, when the patient was progressing favourably, the evidence of pneumonia being established, was quickly followed by typhoid symptoms. On examination after death, the interlobular septa of the lung were found infiltrated over a considerable space with purulent-looking fluid.

Typhoid Fever.—The cases of typhoid fever met with in practice may be grouped under the following heads:—The typical, the mild, the grave, and the insidious, simulative, or latent.

Time permits me only to sketch the last; and this I shall do at some length, because I believe the cases included in it are often misunderstood.

The insidious, simulative, or latent variety of typhoid fever usually commences most gradually, the patient being altogether unable to say on what day he first felt unwell; nay, sometimes he cannot fix within a week or ten days the outset of his illness; rarely is he able to say what the first symptoms from which he suffered were. He seeks aid from the physician because he feels "poorly;" he deferred seeking aid before, because "he hoped to shake it off." His bowels have been, he says, somewhat "out of order," his head has ached a little, and perhaps he has had trifling cough. He thinks he must have caught cold. Now and then, one or other of the symptoms mentioned are especially complained of. Less commonly pain in the limbs and back are troublesome. The patient has not given up his ordinary employment, but he feels, as he describes it, "not up to it." He lies in bed as late in the morning as his occupations permit him; when he rises, feels weary and fatigued, and at night scarcely able to undress himself. His appetite is lost; more or less diarrhœa is usually present; sometimes, however, the bowels are constipated. The tongue is often large, pale, and but slightly furred. It is generally somewhat tremulous. If the case be not understood, the patient gradually growing less able to exert himself, ceases to leave the house, or, if he still goes out, it is for a short time only. The greater part of the day he spends in bed or on a couch. At night he is restless, and disturbed by thirst and a sense of heat,—"eaten up by fever," as he calls it.

In this state, if the case go on favourably, the patient continues one day better and another worse, but always losing flesh for about a month, and then he begins to mend, and after another week or two feels pretty well.

For many years some of these cases puzzled me much. A pulse somewhat quickened only, a tongue not greatly differing from that of health, and no marked heat of skin, trifling frontal headache, a little sonorous râle, and slight irregularity of the bowels, seemed local ailments altogether insignificant, and yet the patient continued ill, and often appeared worse to his friends than to me, for they saw him at all times, I only when he was aroused to exertion. I have supposed the case to go on well; but in some instances it terminates fatally by hæmorrhage from the bowels, or perforation of the intestine, and then the patient dies in a few days, to the surprise of those who have watched the progress of the case.

In these latent cases, the physician has often but to be aware of the possible nature of the illness to detect it. The confirmation follows immediately on the suspicion; for, if the surface of the abdomen and thorax be carefully examined, in a large number of cases, the rose spots, which, when well marked, are as characteristic of typhoid fever as are the small-pox pustules of small-pox, may be detected.

But in a certain proportion of cases, on the most careful search, not the trace of a spot can be seen.

Still the diagnosis may usually be made with certainty. The conjunction of frontal headache with diarrhœa is rarely observed except in cases of typhoid fever; and, if to these symptoms be added a sense of weakness disproportioned to that which might be occasioned by the diarrhœa, trifling sonorous râle, with a want of steadiness in directing or keeping up, even for a short time trifling muscular effort, *e. g.*, a little unsteadiness of the tongue when fully protruded, a little wavering of the hand when the arm is extended,—the diagnosis of typhoid fever may be considered absolute, even though the heart's beats be scarcely quickened, the tongue be moist and almost clean, and the patient able to leave his room for the greater part of the day. Ordinarily, in the cases of which I am speaking, the abdomen is somewhat more resonant than natural, a little "blown," as it is called, and gurgling, on careful manipulation, may be detected in the right iliac fossa; the splenic dulness, too, is extensive.

In some cases which commence as the one I have just sketched, after 16 or 17 days have elapsed, the febrile symptoms become more marked, and in a few days the tongue is brown, sordes collect about the teeth, and prostration is considerable; then the disease is said to run into typhus fever.

In other cases cough and sonorous râle are the most prominent symptoms, and then the patient may be supposed to be labouring under a mild but protracted form of bronchitis. A fourth set of cases, from the presence of redness of the tip and edges of the tongue, and the marked character of the intestinal disorder, are called by some "mild gastric fever," or "muco-enteritis."

While, in a fifth set, the symptoms are so trifling that the patient and his friends resort for an explanation of his illness to those English disorders, a bad cold or an attack of the bile, while the medical attendant sees protracted influenza, irritative dyspepsia, or error in diet.

Scarlatina.—Passing by those forms of scarlatina which are never fatal, I will enumerate the apparent causes of death in the fatal cases I have examined.

For this purpose I may divide the cases into two groups, viz., those which proved fatal during the first week, and those which proved fatal after the first week. Of the first group some died before the appearance of the rash.

The following are the particulars of a case of this kind which came under my observation in 1851:—

A man, about fifty years of age, his wife, and three children, resided in two small rooms opening into each other, in an imperfectly drained house.

Between May 15th and 29th the woman and the three children were attacked with scarlatina. The man slept during the whole time in the same bed with his wife and sick children. On June the 1st, about noon, *i. e.*, after eating, drinking, and sleeping in an atmosphere highly charged with

the emanations from those suffering from scarlatina for 17 days, this man complained of sore throat.

On the 2nd, about noon, he became suddenly insensible, and near midnight was admitted into University College Hospital. At that time there were a few dusky red patches on the skin, the surface was cold, the pupils large, and the pulse scarcely to be felt. The man continued very restless to the last, and at no time after he came under observation could he give any account of himself. An hour or so before death petechiæ appeared on the skin.

He died at 3 a.m. on the 3rd, *i. e.*, less than forty hours after first suffering sore throat.

When the body was examined on the 4th, the whole surface had a purplish, mottled aspect. Small spots of extravasated blood were found in the cutaneous tissue, under the pleuræ, pericardium, endocardium, peritoneum, and gastro-intestinal mucous membrane.

The tonsils were enlarged, and, in common with the mucous membrane of the *velum pendulum palati* and pharynx, highly vascular. The spleen was large, and there was some engorgement of the vessels of the pia mater.

In some of the cases I have examined which proved fatal during the first week, the rash being fully developed, careful examination after death has not enabled me to detect any great change of structure. In some of these cases the general symptoms have inclined to an inflammatory, and in others to a typhoid type. In neither set of cases were the symptoms referable to the specific throat affection very prominent during life. The structural changes of extent or severity that I have found in other cases fatal during the first week, have been—

a Sloughing of the tonsils.

b Ulceration of the pharynx and larynx.

c Intense redness of and granular lymph—the croupose lymph of Rokitansky—on the mucous membrane of the pharynx, larynx, and stomach.

d Abnormal vascularity of the cellular tissue, and lymphatic glands in the vicinity of the parotid gland, and of the cellular tissue uniting the lobules of the gland itself, with excess of serosity in the same tissues.

e Blood on the free surface of the arachnoid, without evidence of the rupture of any vessel appreciable by the unaided eye.

The grave structural changes I have found in those cases which have proved fatal after the first week—*i. e.*, after the rash had disappeared, have been—

Sloughing and ulceration of the fauces and pharynx;

Post-pharyngeal abscess;

And which is often termed Parotid bubo.

Under this latter term are comprised the following pathologico-anatomical conditions—viz., inflammation and suppuration of the cellular tissue around the gland.

Inflammation and suppuration, chiefly of lymphatic glands over or near to the parotid gland. In either of these cases the purulent fluid may be diffused among the structures; infiltrate them, that is to say, or it may be circumscribed or collected into an abscess.

Inflammation and suppuration of the parotid gland itself. In these cases the pus is diffused through the cellular tissue, dissecting the lobules of the gland from each other.

The remaining serious lesions I have found, after the disappearance, of the rash have been the effects of local inflammation, especially pleurisy and pneumonia, and collections of pus in several parts of head, trunk, and extremities.

The death, then, in all these cases, can readily be referred to the extreme severity of the general specific disease, to excess of the local specific process, or to the occurrence of complications.

In *scarlatina simplex* and *scarlatina sine eruptione* the specific general disease is moderate in degree, and the specific throat or skin affection trifling in amount or absent. The complete absence of any affection of the fauces must, I think, be very rare, for no instance of it has fallen under my observation. In a tolerably large number of cases, the patient has complained of sore throat: but inspection of the part, in all such cases, has proved the presence of abnormal redness. In scarlatina anginosa the severe and inflammatory character of the throat affection gives a peculiar aspect to the case. The skin affection may, at the same time, be highly or imperfectly developed.

Under the head of *scarlatina maligna* are included several symptomatologically and pathologically distinct varieties of scarlatina.

1st. That variety in which death takes place a day or two after the first symptoms of disease.

2ndly. That in which the specific local processes of the skin and throat are fully, but not excessively developed, and the patient dies comatose, or sinks suddenly, while the rash is well out, or immediately after it has faded.

3rdly. That in which the eruption is dusky; petechiæ stud the skin; the tongue is dry and brown, the pulse rapid and feeble, and the prostration extreme, and at the same time a tendency is manifested to gangrene of the throat, and also of all parts exposed to pressure.

4thly. That in which, at a very early stage of the disease, acrid discharges escape from the nose, eyes, and ears; the tonsils are greatly increased in size, and, in common with the uvula, *velum pendulum palati*, and pharynx, are red; the parts behind the rami and angles of the lower jaw are considerably swollen; the pulse rapid and feeble; and the rash more or less imperfectly marked.

In this variety, which is so common in strumous children, all the mucous membranes referred to are the seat of ulceration. I have seen, under these circumstances, a patient recover after losing the sight of both eyes from destruction of the cornea, and having the sense of hearing greatly impaired by ulceration of the membranæ tympanorum.

Measles.—A case of measles, in which the disease has assumed a typhoid type; a case of measles in which death has been caused by the specific disease; a fatal case of measles, in which no local complication existed, has not fallen under my observation.

As in scarlet fever, either of the specific local processes, viz., the skin eruption or the catarrhal symptoms, may be absent, or, being present, may vary in severity. But it is chiefly from the presence of complications that marked deviations in particular cases of measles from their type arise, and to cases with such complications, chiefly, that the term "malignant" has been applied.

Typhus Fever.—Cases of typhus fever deviate from the type of the disease chiefly in the greater mildness or severity of the general symptoms, and in the extent and intensity of the specific skin affection. As a rule, the milder the case, the less marked the rash. The danger of the disease is in proportion to the gravity of the general affection, local complications rarely occurring in mild cases to modify the features of the disease. The general symptoms are sometimes so trifling, that the patient hardly needs to keep his bed; while, on the other hand, they are sometimes so severe, that the patient dies within a few hours, constituting the typhus siderans of some authors. The only complication which I have seen causing any material deviation from the type, is inflammation of the intestinal mucous membrane. The symptoms indicating this complication are tympanitic distension of the abdomen and diarrhœa. After death, there is intense vascular engorgement of the mucous membrane, with a variable quantity of the granular, croupose, or diphtheritic variety of lymph on its surface. In some cases the inflammation is limited to the mucous membrane of the colon; in some cases the inflammation passes the ilio-cœcal valve, and in others is said to be limited to the small intestine; but it never exhibits any tendency to affect Peyer's patches except in common with the mucous membrane of the whole circumference of the intestine. Typhous deposit, as it is called, is never found in typhus fever.

Relapsing Fever.—In relapsing fever the most common deviation from its type is produced by a functional disorder of the liver, which manifests itself by jaundice. I never saw jaundice in typhus or typhoid fevers, though this drawing of the ileum of a soldier, belonging to a native regiment at Sierra Leone, renders it probable that in some countries jaundice does occur in typhoid fever, and also that cases of that disease are confounded, under such circumstances, with yellow fever.(a)

The hue of the skin when jaundice occurs in relapsing fever varies from slight sallowness to intense yellowness. At the same time that the skin is yellow, and bile is present in the urine, the stools contain an abundance of bile, and if death occur the gall-bladder is found full, and the cystic and common ducts pervious. Doubtless, some of the cases known in practice as jaundice from hepatic congestion, are in reality cases of relapsing fever, and a suspicion of this should

(a) The drawing referred to was kindly lent to me by Dr. Andrew Smith. It was made when at Sierra Leone by Dr. M'Diarmid, and is contained in the Museum of Pathological Anatomy at Fort Pitt.

always cross the mind when a patient is suddenly seized with febrile symptoms and yellowness of the skin, the stools being at the same time dark coloured. In relapsing fever epigastric tenderness is often a prominent symptom. In the second variety of relapsing fever there are lividity and coldness of the surface; a feeble and frequent pulse; delirium of a low type; drowsiness, unconsciousness, and rapid death from asthenia. Jaundice may or may not be present in these cases.

Erysipelas.—There are three great varieties of erysipelas in addition to the typical. I have twice examined fatal cases of erysipelas after death without detecting any marked departure from healthy structure when during life a little dusky redness about the nose and the most trifling redness of the throat had been the only direct evidence of the disease. The general symptoms were delirium, at first active and then muttering, followed by somnolence and stupor.

The peculiarities in the other two varieties are dependent on the effects of the severity of the inflammation of the skin and subcutaneous tissue in the one case; and on œdema of the loose cellular tissue about the entrance into the larynx, especially that of the arytæno-epiglottidean folds, in the other.

In regard, then, to the deviations from the typical forms of the acute specific diseases, the extreme differences observed in the general aspect of the patient are most commonly due to the severity of the general specific disease in typhus fever and relapsing fever; to the severity and extent of the specific local processes in small-pox and erysipelas; to the presence of local complications in measles; and as often to the severity of the general specific disease as to the extent and severity of the specific local processes and their immediate effects in scarlet fever and typhoid fever.

HISTOLOGICAL ANATOMY
AND
MICROSCOPICAL MANIPULATION.

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PART SECOND.

THE PHYSIOLOGICAL DEMONSTRATION OF THE TISSUES.

Lecture V.

Summary.—19. The Offices of the Blood—20. What is Required for its Examination—21. Method of Obtaining the Blood, etc.—22. Red Globules and their Shape: *Rouleau* Formation—23. Mode of Obtaining White Globules, their Appearance and Number—24. Action of Re-agents on Red Globules: as Water, Salt and Water, Acetic Acid, Weak and Strong; Tincture of Iodine—25. Similar Analysis of White Globules—26. Shapes of Globules in Different Animals—27. Nuclei of Frogs' Blood—28 and 29. Fibrillation—30. The Circulation, and its Demonstration with Different Powers—31. The Frog Plate: Circulation as seen in the Frog's Web; and 32, 33. Tadpole's Tail—34. Mode of Keeping Frogs.

THE HUMAN BLOOD.

19. The blood (*das Blut*, perhaps, also, βλύζω), is, physiologically or pathologically considered, the most important organised structure in the body. It contains, in a soluble form, the materials out of which the whole animal fabric is built up, and is likewise subservient to other purposes. Thus, in its stream, it carries away the particles which are worn out in the service and performance of the functions, of the different tissues, and which, if left, would act as poisons in the system, and hence both vivifies and cleanses the same organism at the same time. But, further, in the higher animals it is the only introducer of oxygen to the immediate vicinity of the tissues; and, reasoning from analogy upon the facts brought to light by comparative anatomy, the access of oxygen to the muscular and nervous tissues is not only essential to their activity, but directly proportional to it. But the process of low combustion, thus ever going on, gives rise to a product of the most deadly character,—carbonic acid,—which, by the same stream of blood, is carried away to the lungs, where it is *displaced*, and gives way to a fresh supply of the vivifying gas—oxygen.

The common physical properties of blood are too well known to require any description here; but, if examined with a microscope, it is seen to contain two kinds of ("little bodies") *corpuscles* or globules, some reddish and some white. These are its chief microscopic elements. The red globules are vastly more numerous than the white; so much so, indeed, that, until your eye is accustomed to the positive shape and whole appearance of the red globules, you will overlook the white ones entirely, as they were overlooked even by microscopists till long after the red globules were discovered.

20. In order to examine blood satisfactorily, a somewhat higher power is required than for the demonstration of many of the tissues,—namely, from 350 diameters upwards. About the same amount of light is necessary as that which is used in examining milk. As blood rapidly dries when in quantities small enough for microscopic analysis, an "*over-glass*" should always be used.

21. The specimen of blood to be examined may be obtained extemporaneously by pricking the gum or finger; but, if anything like a complete analysis is wished, it must be collected in larger quantities, as in any of the minor surgical operations. If obtained in the former way, however, the finger is the preferable source, because the field of the glass becomes covered with epithelial scales when blood is obtained from the mouth, that is, with scales lining the mucous membrane of the mouth. Place a small drop upon the stage-glass, *immediately* cover it with an over-glass, then adjust for the focus. The blood will appear differently, according as you approach or recede from the focus, as seen in the accompanying plate.

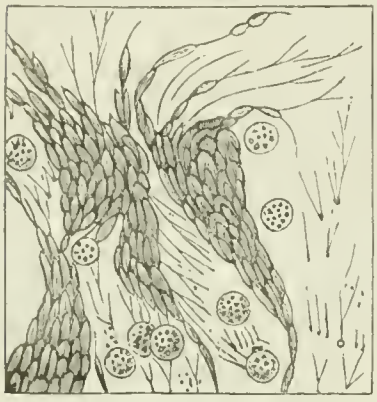
Red corpuscles of human blood, represented at *a* as they are seen when rather beyond the focus of the microscope; and, at *b*, as they appear when within the focus. Magnified 400 diameters.

22. Let us now examine these red corpuscles more carefully. In the first place, scattered as these globules are upon the field, they can hardly be called *red*, but have a yellowish-green appearance. This, however, is simply because the light is too strong for viewing them thus isolatedly. Wherever they are aggregated, the red colour is distinct enough; or, if you lessen the amount of light, which comes to the same thing, it is more apparent.

I mention this, not because it is important in itself, but it is illustrative of the importance of adjusting the light to the particular structure under investigation. In the next place, when the globules are in focus (*b*), you observe that their centre is darker than their periphery, just the reverse of what you have already seen in the examination of milk. Now, why is this? Milk, we have noticed, is spherical; and all spherical translucent structures have, when in focus, a light centre and dark periphery. The red blood-globule, however, is not spherical but disc-shaped, and the disc is peculiar. It is biconcave (like Fig. E in Sections 2 and 21, First Part.) In short, the light, passing through the under side of the globule or disc, is immediately interrupted by the proximity of the middle part of the upper side before it is interrupted by the borders; hence the middle part of each globule or disc is virtually thicker, and that is the same as being less translucent, which would be the case if the globule were a small piece of membrane only, and not a membrane wrapped up as a cell. The extreme globule on the right of Fig. *b* is turned with its edge towards you, and to some extent shows the biconcavity of the disc. If you watch carefully, however, you will see this biconcave form constantly while the globules are roll-

ing about the field. If the blood be drawn in any quantity, and a portion of it be put aside in a watch-glass for some time, say an hour or two, and then examined in the ordinary way, the red globules will be found peculiarly arranged. In the first place, they will be seen to be joined in *rouleaux*, which have been likened to "piles of money;" these form long threads or branches. In the second place, these threads are more or less interwoven in a kind of irregular net-work, which sometimes breaks up when shaken, and afterwards joins again in fresh places, if allowed to stand; or, if any of the blood-globules remain isolated, they may have undergone some alteration in shape; that is, have become corrugated or notched, cup shaped, star-shaped, etc., and their original figure may be restored by adding a fresh portion of recently-filtered liquor sanguinis.

23. Perhaps the best method of examining the white corpuscles is to obtain a specimen of inflammatory blood; in this there is an increased tendency on the part of the red globules to cohere and run into masses, separating themselves thus from the white globules, which remain unaffected. This is so evident, indeed, in some specimens, that during the process of "*fibrillation*," which will be referred to presently, the net-work is covered by small patches of white globules, without any intermixture of red ones.



A drop of blood in the inflammatory condition, the red corpuscles becoming oval. The white ones often more numerous, and remaining apart.

It will be seen that the white corpuscles are larger than the red ones, though much fewer in number—that they are granulated upon their surface, and nuclei or a nucleus become visible when they are acted upon by certain re-agents. They have almost no tendency to cohere or to form in rolls like the red globules.

24. Now, observe the effect of certain re-agents upon these two sets of globules; and, first, upon the red ones. The re-agents required are: pure water, sugar or salt and water, mixed denser than liquor sanguinis; weak acetic acid, strong acetic acid, and tincture of iodine: and the best way of applying these various re-agents is to put a small portion of blood in so many watch-glasses, and to each to add a small quantity of the special re-agent in question. This should be done at the commencement of the demonstration, so as to allow some little time for observing the development of the particular re-action.

Say that to watch-glass A you have added water. Upon examining the specimen; the red globules will have become more or less spherical by imbibition of this water, while their colouring matter will have passed out: their envelope is, however, quite distinct. No nucleus is visible. If the blood have been standing too long with the water the envelope will probably have ruptured.

Say that to watch-glass B you have placed weak acetic acid. The colouring matter is gone, and the envelope is less distinct, sometimes hardly visible, because its power of refraction when thus treated is the same as that of the fluid in which it is immersed. Add, however, to this specimen, while still looking at it—in the manner described in Section 15, Lecture IV.—a drop of the tincture of iodine. This will bring the envelope into view immediately, showing it has not been destroyed; but still no nucleus is visible.

But if from the specimen in watch-glass C, to which you have added some strong acetic acid, you examine a portion, you will find the envelope completely dissolved, and no trace of it anywhere upon the field. The colouring matter will be diffused over this space, but no nuclei will be visible.

Take now a portion from the watch-glass D. The salt and water being denser than the fluid in which the red globules are naturally immersed, a process, the reverse of what took place in watch-glass A has been going on, and you consequently find the envelope corrugated and collapsed, more or less; but still no nucleus is visible. Hence you may conclude that the red globules of *human* blood have no nucleus.

25. Now examine the *white globules*. These may be obtained as directed (23), or from a case of leucocythæmia.

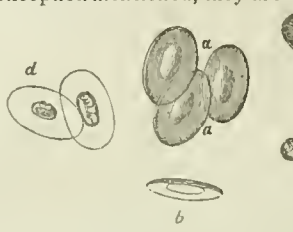
Water does not seem to affect them.

Weak acetic acid brings a single or compound nucleus into view, and, after a little time, a delicate envelope.

Tincture of iodine will colour this envelope, (add it as in analysis B, Section 24.)

The behaviour with re-agents of the white globules of the frog—which may be always got in sufficient quantities for observation—is the same as that of human white globules under the same circumstances.

26. It should be here stated, that in reptiles, fishes, birds, and in the camelidæ, speaking generally, the red globules are oval in shape; while in mammals, with the exception mentioned, they are of the same shape as in man.



Red corpuscles of frog's blood; *a a*, their flattened face; *b*, one turned nearly edgeways; *c*, lymph-globule; *d*, red corpuscles, altered by dilute acetic acid. Magnified 500 diameters.

27. The nuclei in the frog's red blood are very distinct; they project laterally, and are made very plain by the addition of acetic acid. You may advantageously repeat the analysis just completed, with the frog's blood, noting wherein it differs from that of man.

Fibrous structure of inflammatory exudation from the peritonæum.

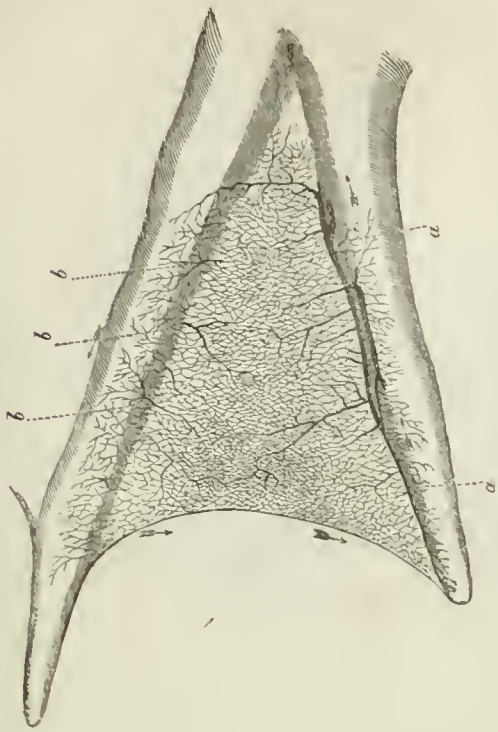
28. If you can produce by any means a slow coagulation of the blood out of the body, in certain circumstances you will see what is called fibrillation going on; that is, a distinct arrangement of the *fibrine* into fibres, which, uniting and interlacing, form a *felt-like* mass, destitute, however, of organisation, in the proper sense of that term. This may be well seen in those fibrinous exudations which take place on the surfaces of membranes in an inflamed condition, as on the peritoneum for instance.

Now, this is perhaps the acme of perfection in fibrillation in the spontaneous coagulation of the blood; but it occurs more or less in the formation of every clot, and in those clots especially which, forming within the body, apart from inflammation, are not extensive in their nature, and are therefore in immediate contact with some membrane. This may be to a slight extent *imitated* thus:—

29. Take a small portion of the blood of an animal *just killed* (a rabbit, for instance); place it upon a stage glass, as if for immediate examination; then place the stage glass upon some part of the interior of the animal's body, so that its under surface only shall be in contact with the warm membrane. This can be easily managed by some mechanical contrivance. When the animal is cool,—say the next day,—you may wash the under surface of the stage glass, and, upon examining the microscopic clot, you will observe a *fibrillated membrane*. In short, this, as before stated, is, to a greater or less extent, observable in all clots.

30. The circulation is most readily observed in the *web of the frog's foot*. It can be seen in the animal's tongue; but this is a more cruel sort of experiment, and, except for

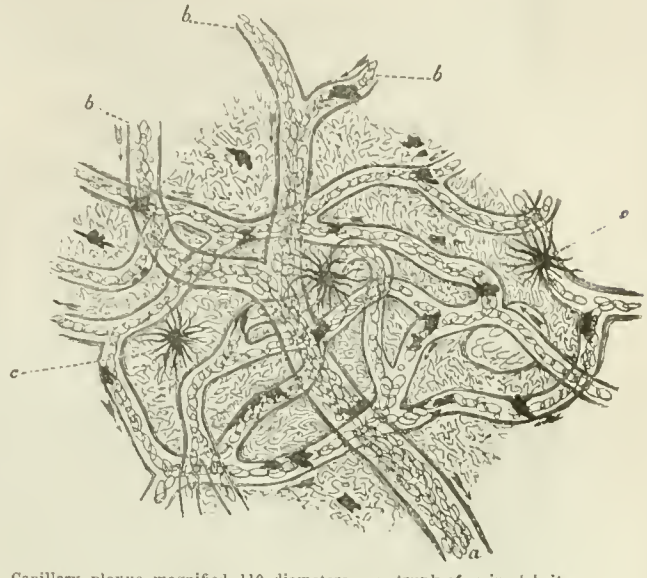
certain specialties, which I have at present nothing to do with, is not more satisfactory.



Web between two toes of the frog's foot, seen with a very low power, as 3 or 4 diameters; *a a*, veins; *b b b*, arteries.

If the toes of the hind feet of a frog be stretched across a *frog-plate*,—a piece of apparatus which I shall presently describe,—the ultimate union of the arteries and veins will be brought into view, in the beautiful set of vessels called capillaries. But you may observe, with a low power, while holding the frog in your hand with its web against the light, such a view as that presented in the above figure. You do not see a single capillary vessel there, but the termination of the arteries and the commencement of the veins, as marked out by the arrows and letters.

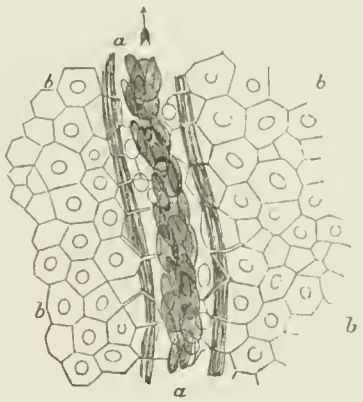
31. The FROG-PLATE consists of a piece of zinc, *cardboard*, wood, or cork, about six inches by four in size, in which there is a hole at one end, the diameter of which equals the span of an ordinary-sized frog's toes; round this large hole a great number of very small holes should be drilled, about the eighth of an inch apart, and of a size capable of admitting a common needle. The frog should then be placed in a muslin bag, with one of his hind legs protruding out of the mouth, and the neck of the bag then should be drawn to prevent it thrusting the other leg through the same aperture, but not so tightly as to stop the circulation down the femoral artery. The strings round the top of the bag should each be half a yard long; they can then be used for winding *gently* round the distal end of the plate, thus binding down the frog to the desired position. The extremities of the toes, as seen in the above figure, will project slightly over the aperture of the frog-plate, and may be secured by a loop of silk or thread, passed by a needle through two of the neighbouring small holes. Experience, as well as good feeling, will point out the importance of not wounding the frog by a prick or rough handling. Having thus secured the animal, place a pledget of muslin or linen, wetted in water of the temperature of the frog's body, or near it, and you may now bring the part of the web placed upon the stretch into the focus of the microscope, when, if you use a power equivalent to about 110 diameters, an appearance like the accompanying plate will present itself to your view, except that you will



Capillary plexus magnified 110 diameters; *a*, trunk of vein; *b b*, its branches; *c c*, pigment cells.

see the circulation *going on*. This is perhaps one of the most beautiful objects in the whole range of histological demonstration, a sight of which never fails to call forth feelings of wonder and admiration.

It may be stated generally, that the current in the VEINS appears to be going towards the toes; that is, really away from them, (Section 55, Firs t Part,) or, in other words, towards the body. The other vessels are capillaries.



Small venous trunk, *a*, from the web of the frog's foot, magnified 350 diameters; *b b*, cells of pavement epithelium, containing nuclei White corpuscles on the sides of the stream of the red ones.

32. If now you examine some smaller branch of the veins with a higher power, you will more distinctly see the comparative size of the white and red globules, as also their comparative number, and the mode in which they circulate through the vessels. If you use a lens of about 350 diameters, something like the accompanying plate will be observable.

33. The tail of the tad-pole will also exhibit the circulation. The little animal may be laid upon a stage-glass with a piece of *wet* muslin *lightly* wrapped round it. You had better use an over-glass when examining it, for it is apt to turn its tail upwards, especially if you do not put enough moisture in contact with it, and thus to dim the object-glass.

34. Every histologist should keep frogs by him in holes dug in a garden, near a corner where the sun sets, if possible, or in an abrupt line of shade, produced by a wall or *stable*, etc.; the frogs will then feed themselves upon the flies and insects which frequent such spots. Those who do not possess gardens, may keep them, in a deep jar upon the leads of houses, *if not too high*. But frogs die for want of food on very high localities, as the roofs of houses, unless you keep at the same time a portion of meat or treacle to attract various insects. I mention these trivial matters because I have more than once been disappointed in a demonstration by finding that the frog I had relied upon for

the process was dead, and I have known others in a similar position.

The next lecture will contain a description of CHYLE, LYMPH, SEMEN, THE CATAMENIAL FLUID, and also CARTILAGE, temporary and permanent, with its varieties; and it may be stated, in answer to several correspondents, that these lectures will *regularly* appear once a fortnight.

ORIGINAL COMMUNICATIONS.

CASES OF HÆMORRHAGE AFTER DELIVERY, ACCOMPANIED BY SEVERE AFTER-PAINS.

WITH REMARKS.

By FRANCIS H. RAMSBOTHAM, M.D., F.R.C.P.
Consulting Physician in Obstetric Cases to the London Hospital.

It is generally believed, and with truth, that the more strongly the uterus contracts after delivery, the less chance is there of hæmorrhage occurring; and the greater, therefore, is the safety of the patient in respect to that source of danger. This aphorism, however, only applies to those cases in which the uterus is empty; if it contain any solid body—a polypus, for instance, as I have before shown, a portion of placenta adherent to its surface, a large piece of the fœtal membranes, or even a mass of tough, fibrinous coagula—it may contract most powerfully—indeed, inordinately—with much more pain than usually attends its action after the child's birth; and yet, at the same time, there may be such a discharge of blood flowing as to place the patient's life in imminent peril.

These cases are embarrassing to the young practitioner, especially as there exists among authorities on the obstetric science, a great diversity of opinion in regard to the treatment of floodings after the removal of the placenta; and this want of concord must necessarily tend in no small degree to confuse his judgment. Some, as Denman, Dewees, and Robert Lee, think the introduction of the hand for the purpose of clearing the uterine cavity too harsh a measure to be admissible under such circumstances; while others, as Burns, Collins, Gooch, Merriman, and my late father, describe the proceeding as being not only safe in itself, if carefully performed, but as the speediest and most effectual means of averting the impending danger. Others, again, as Blundell, Ingleby, and Churchill, think it should never be attempted, unless there be "inexorable need," or "a very pressing emergency," or till "all other means have failed."

I propose to report a few of the cases that have occurred in my practice, where a quantity of tough coagula, collected within the uterus, gave rise to intense suffering and other alarming symptoms, as a type of the kind of cases to which I refer, and as an exemplification of the practice that I have followed for some years with very satisfactory results.

The fact of my having seen the first seven cases that I shall relate, all in one year, is a proof that they are not very rare, but that they are met with often enough to make them well worthy of special consideration.

Case 1.—On February 2nd, 1833, at five a.m., I was sent for to Mrs. S., aged 32, in the neighbourhood of Drury-lane. She had been in labour of her first child for two days, the membranes having broke on the first accession of pains; and she had been rather officiously treated, for her attendant had exhausted his stock of ergot, had given her a considerable quantity of gin and water; she had taken two large doses of laudanum; and he had been rubbing some extract of conium on the cervix uteri; he was about to bleed her when I arrived. I found her walking about the room, unable to sit from the pressure of the child's head, looking weary. She had not slept for two nights, but the pulse was under 90, and there was no indication of exhaustion. The os uteri was not quite dilated, though the head was low in the pelvis; the scalp was puffy and swollen; the vagina and perinæum very rigid; and the pains were frequent and irritating. I ordered her a little effervescent medicine, and directed that she should be kept quiet on the bed, and that the external parts should be fomented. At two p.m. I ascertained that the pains had been much more natural and efficient since the meddlesome practice had been discontinued; the os uteri was entirely dilated, the vagina much more lax, and the head extending the perinæum. The child was born at three. The placenta was expelled naturally in fifteen minutes, but the uterus soon relaxed, and a quantity of blood collected within its cavity. Pressure and cold caused it to contract; still there was a draining of coloured serum going on, and the uterus was acting at intervals very strongly, with much pain. After waiting nearly half an hour, without any relief to the symptoms, during which time she became rather faint, I introduced my hand fully into the uterine cavity, and removed four or five ounces of firm, fibrinous coagula. The draining then ceased, as did the pains also; and she soon went to sleep. It was necessary to introduce the catheter once the next day; but she recovered perfectly well.

Case 2.—On April 27th, 1833, at two p.m., I was requested to see a patient of the Royal Maternity Charity, who had been delivered of her first child by one of the midwives, about two hours before, after an ordinary labour. The placenta came away without assistance, in less than half an hour; but the uterus relaxed, and she flooded much. The midwife had used cold applications and compression of the viscus; and although these means had produced strong contraction, attended by unusual pains, they had not put a stop to the discharge. The patient was complaining of acute suffering each time the uterus acted, was faint, pale, and in a state of jactitation. I therefore introduced my hand at once into the cavity, and took away a mass of firm coagula, the size of a man's fist. The violent pains ceased immediately; the bleeding was stayed; and, after experiencing for a few days a pulsating pain in the head, she gradually recovered.

Case 3.—On the next day, April 28th, at eleven p.m., a medical friend sought my assistance for Mrs. A., Burr-street, Wapping, in labour of her ninth child, at full time. He had been called to her an hour and a half before my arrival, and found her flooding violently. The discharge was much arrested when I saw her, though it had not quite ceased. The pains were feeble; and I could just touch the edge of the placenta at the posterior part of the neck of the uterus, the mouth being dilated to the size of a crownpiece. As there was no faintness, I allowed the case to go on uninterfered with for an hour. At the end of that time, however, the hæmorrhage returned, and I therefore ruptured the membranes. The uterus now began to act more powerfully, and the child was born at half-past two. The placenta was expelled into the vagina in half an hour, whence I removed it; but the uterus relaxed, and flooding came on. For nearly two hours I used compression with my hand, and continued to apply cold vinegar and water without intermission. During a great part of this time the uterus relaxed and contracted alternately; at last it became quite firm, though larger than it should have been. Notwithstanding its hardness, and the powerful spasmodic action that it took upon itself, the hæmorrhage did not cease. She was in great pain every time a contraction occurred, became restless, and began to yawn. Feeling anxious for her safety, I passed my hand within the uterus, and brought away a quantity of very tough coagulum, as much as would fill a common-sized tumbler, part of which was almost white, the red globules of the blood having been squeezed out of it. From that time the pain and discharge both ceased. I left her at seven o'clock, and her restoration was unchecked.

Case 4.—On May 11th, 1833, at half past eleven p.m., a physician residing in the city came to me in great haste, to beg I would go immediately to the assistance of his wife, whom he thought dying. She had been delivered of her third child, under the care of a mutual friend, nearly two hours. The placenta passed in twenty minutes after the infant; but she was soon seized with violent uterine pains, accompanied with considerable hæmorrhage; and she became faint. I found her very pallid; the pulse at the wrist was scarcely perceptible; the uterus was acting every four or five minutes with excruciating agony; and there was a copious serous discharge from the vagina, only slightly tinged with red. The uterus was much larger than it ought to have been, but exceedingly firm. Believing it to contain a quantity of coagulated blood, I proposed the introduction of the hand, for the purpose of emptying the cavity. This was readily acceded to; and I removed more than half a pint of very tough, solid clots. I had some difficulty in passing my hand through the mouth; and some, also, in separating the fibrinous matter from the internal membrane, for it adhered with considerable tenacity; however, I got it all away. From that time the agonising pain abated, the hæmorrhage ceased by degrees, she soon fell into a slumber, and had a good and quick recovery.

Case 5.—On July 24th, 1833, at half past eleven p.m., a medical friend called me to the wife of a tradesman in Bishopsgate-street, who had been delivered of her fifth child four hours. I was told that the placenta had come away in ten minutes after the child's birth, without any trouble or hæmorrhage; that her attendant had left her, and was recalled in an hour, and that he then found her suffering from severe after-pains, with considerable flooding. When I arrived, she was very faint, cold, and restless; the after-pains were frequent and very distressing; and the uterus was large and hard. Being quite sure that it was not empty, I passed my hand within the cavity, and took away a large quantity of firm coagula, among which were entangled some filaments of placenta, that had been adherent to the uterine surface. I met with much resistance in introducing my hand, in consequence of the strength of the uterine contractions, and had some trouble also in separating the pieces of placenta, on account of the firmness of their adhesion. But the organ having been emptied, the pain and hæmorrhage immediately ceased, and the woman was restored without a bad symptom.

Case 6.—On July 26th, 1833, at seven p.m., I was summoned to Mrs. J., in Aldgate, whom I had engaged to attend. It was her fifth child; the membranes broke on the 24th, and she had been very uneasy ever since. Labour was considerably advanced, and she was delivered at half-past eight. The placenta was expelled without hæmorrhage in twenty minutes, and I left her before ten. In an hour I was sent for again. She was then suffering most intensely from after-pains, was faint, and frequently vomiting. The uterus was large and very hard. She had evidently lost a great quantity of blood since I had left her; and there was a copious flow still going on. I introduced my hand, without loss of time, carefully into the uterine cavity, and extracted about half a pint of heavy, tough coagulum. The pain instantaneously left her, the hæmorrhage abated gradually, and at twelve o'clock she was in a state to admit of my departure. She suffered from symptoms of re-action for a few days, but got about as early as she ever had done after any of her previous confinements:

Case 7.—At one p.m., August 18th, 1833, my assistance was sought by a medical practitioner, for Mrs. C., Hoxton, who had been delivered of her first child three hours. The placenta had been retained by irregular contraction, and removed from the uterus by the hand; previously to which she had lost about two pounds of blood. When I arrived, she was faint, cold, and pale; the pulse was very small; the uterus was excessively hard, and rather larger than natural; there was an uninterrupted draining going on, and she was suffering excruciating pains at intervals, evidently proceeding from uterine contractions. She had taken three drachms of laudanum without relief. I passed my hand into the cavity with considerable ease, notwithstanding the strength of the uterine contractions, and removed a quantity of the same kind of tough, fibrinous coagula as existed in the other cases that I have narrated, considerably larger than an orange. She felt immediate freedom from pain, and the discharge ceased almost as suddenly. She became a little faint, but soon rallied; at four she was sleeping comfortably; and her recovery was uninterrupted.

In all these cases, as well as some others that I shall detail hereafter, there was a draining of blood going on at the same time that the uterus was firm and comparatively small, and while the after-pains were frequent and powerful,—a condition of things usually described as being incompatible with dangerous hæmorrhage. In all there was a considerable quantity of heavy, tough coagula within the cavity, and in all the pain ceased immediately the uterus was emptied, the discharge being almost entirely put a stop to equally speedily.

The pain is no doubt produced by ineffectual attempts on the part of the uterus to expel the offending mass within its cavity; and the very efforts set up for this purpose rather retard than further its escape; for, by compressing the coagula so powerfully, the more fluid parts are squeezed out, the firmer remaining behind; and the fibrinous clot thus left clings with such tenacity to the uterine walls as to be almost as difficult of separation by the unaided uterine contractions as a piece of adherent placenta itself would be. Hence the necessity for the manual removal; hence, also, the sudden cessation of the hæmorrhage, and of the intolerable pains consequent on that measure being adopted.

7, Portman-square.

[To be continued.]

THE LONDON PRACTICE OF MEDICINE AND SURGERY.

ST. THOMAS'S HOSPITAL.
Cancer of Breast after Excision of an Innocent Tumour ..... Mr. Simon.

THE LONDON HOSPITAL.
Diffused Cancer of the Breast ..... Mr. Luke.

THE MIDDLESEX HOSPITAL.
Unusual Duration of Cancer of the Breast ..... Mr. Shaw.

THE HOSPITAL FOR DISEASES OF THE CHEST.
Cancer of Breast and Lungs ..... Mr. Hilton.

ST. THOMAS'S HOSPITAL.

SCIRRHUS CANCER OF THE SKIN AND LIVER FOLLOWING THE REMOVAL OF AN INNOCENT TUMOUR FROM THE BREAST.

[Under the care of Mr. SIMON.]

It is an interesting question in the history of cancer of the breast, whether tumours originally of an innocent nature can acquire a malignant one. The possibility of such transformation no one doubts; but modern authorities appear unanimously to have discarded the notion, that it is of at all frequent occurrence, and incline to consider it, when it does happen, as little more than an accidental coincidence in seat of two essentially distinct diseases. Probably innocent tumours, or the cicatrices left after their removal, exercise no other influence, as the antecedents of cancer, than do simple injuries or continued local irritation. If the constitution be cancerous, the outbreak of the disease will in all probability be localised by the occurrence of morbid actions in any part, more especially if those actions are attended by increased afflux of blood. This latter point has been very well discussed in Mr. Simon's admirable Lectures on Pathology. Examples of this change of innocent tumours for malignant ones do occasionally come under our notice, but they are extremely rare, and possibly do not form a greater per centage of the tumour cases than traumatic cancers do of those of simple injury. The particulars of the following very interesting one have been kindly furnished to us by Mr. Tyrrell:—

Sarah Dennis, a widow, aged 30, was first admitted under Mr. Simon's care in March, 1852. At this time she was pregnant, and shortly afterwards miscarried. She stated that she had been confined two years previously, and that, her baby having died, she suffered much inconvenience from the accumulation of milk. While recovering from this, she received a blow on the left breast, and two months afterwards found a small swelling at its outer margin. When this had attained to about the size of a hen's egg, she applied to a surgeon, by whom it was soon afterwards excised. This gentleman considered it to be a "lacteal concretion." The wound healed readily; but, after a short time of apparent health, the axillary border of the breast again became knotty with firm rounded lumps that had no adhesion to the skin, and seemed pedunculated outgrowths of the mammary gland, and a tumour formed beneath. At this time—about eighteen months after the first operation—Mr. Simon removed the outer half of the breast, including the nipple (which was not retracted) and the cicatrix of the former operation. She recovered well from the operation, soon left the hospital, and for six months remained in perfect health.

The characters of the excised tumour were not so definite as to allow Mr. Simon to give a positive opinion as to the probability of its return. The cell-growth of which it consisted was arranged in the follicular form, which authors consider characteristic of lobular hypertrophy; but the cells were of higher development than is usual in this disease; and notice was drawn to the fact, that thus, while the arrangement of cells suggested a simple hypertrophy, or innocent tumour of the breast, their separate examination tended rather to give material for an opposite conclusion. Doubt was, therefore, expressed at the time as to the probable issue of the case.

On Sept. 19 she was re-admitted. On the cicatrix were several hard, pea-like nodules, and the glands in the left axilla were considerably enlarged. Similar nodules of scirrhous deposit were scattered over the integument of the neck and right breast; in all places they were of stony hardness, and the seats of acute lancinating pain. She was extremely cachectic, having a rapid, feeble pulse, and complete loss of appetite. There was now little doubt felt as to the malignant character of the disease, and Mr. Simon's diagnosis of it was confirmed at the time of her death, which did not take place until the beginning of February, 1853. At the autopsy, large firm masses of deposit were found in the liver, respecting which, as well as the cutaneous nodules, the microscope afforded conclusive evidence that they were genuine scirrhus cancer.

In connexion with the subject of this notice, it may be interesting to know, that the two diseases,—scirrhus and lobular hypertrophy,—may co-exist in the same breast. This, no doubt, is very rare; but, a few weeks ago, Mr. Simon exhibited, at the Pathological Society, such a specimen, in which a well-marked scirrhus tumour occupied the centre of the breast, while the axillary margin presented several knots of lobular hypertrophy.

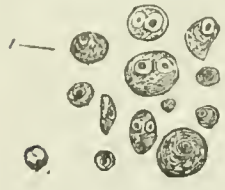
THE LONDON HOSPITAL.

DIFFUSED SCIRRHUS CANCER OF THE BREAST. EXCISION.—RECOVERY.

[Under the care of Mr. LUKE.]

Maria Board, aged 45, unmarried, stout, and of lymphatic temperament, was admitted January 23rd, 1853. She stated that she had not for a long time enjoyed robust health, having been subject to severe dyspepsia. A maternal aunt had died of cancer of the axilla subsequently to removal of the breast for that disease. On December 22nd, 1852, she had noticed for the first time that her right nipple was retracted, and that beneath it was a small, hard, and painful lump. This rather rapidly increased in size, and occasioned her a good deal of darting pain, which, however, did not cause her much loss of sleep.

She became more sallow in complexion, and got somewhat thinner. Mr. Luke found, on examination, numerous scattered nodosities, having more or less connexion with each other, in the substance of a large and very fat mammary gland. The growth was attached only to the nipple, being freely movable on the parietes of the chest. On February 10th, excision of the whole gland was performed. After its removal, Mr. Luke carefully examined the contiguous parts, and, detecting several portions of condensed structure, dissected them out. Some of these showed the deposit of small cancerous masses in the fat; others were merely the hardening and thickening of that tissue, either antecedent to such deposit or in which it was present to so small an extent as not to be visible A section of the mass showed a considerable and well defined portion immediately beneath the nipple, and growing from this were several offshoots, which passed through the structure of the gland into the surrounding fat. In many parts it was difficult to assign the exact boundaries of the disease, it was so mixed up with the natural structures, and, as it were, infiltrated, amongst them. The cut surface of the larger portions, in every instance, contracted, and assumed a cup shape; it yielded a creamy juice, which, when mixed with water, showed under the microscope the appearances here delineated. The cells are, we suppose, tolerably good(a) types of those of scirrhous cancer.



The patient is progressing very favourably, and the wound is fast healing.

MIDDLESEX HOSPITAL.

SCIRRHUS OF THE BREAST.—ILLUSTRATING THE UNUSUAL DURATION OF THE DISEASE.

[Under the care of Mr SHAW.]

Not the least singular feature in the following two cases is, that in neither was the patient at the commencement of the disease very advanced in years. When cancer of the breast happens to very old women, in whom the vital processes are declining in activity, it not unfrequently lasts for a long time and does not seem to exercise any very evil influence on the general health or to shorten life materially. For a patient to be attacked with cancer at 35, however, and to live for sixteen years afterwards is, we believe, a very rare occurrence. Both women are still inmates of the cancer ward at this hospital, and no opportunity has occurred for microscopic examination of their tumours; no doubt, however, can exist on the minds of any who have seen them as to the true nature of the disease.

Case 1.—*Scirrhus Mammæ of Sixteen Years' Duration.—Once Excised.*—Sarah Ady, aged 51, states, that sixteen years ago she first noticed a small, movable, very hard tumour in the outer part of her left breast, which became painful, increased in size, and was excised by Mr. Coulson two years afterwards. Soon after its appearance, her health, which had previously been excellent, began to give way, and she has ever since suffered much from dyspepsia and general nervousness. At the time of the operation, the swelling was as big as a walnut and not attached to the skin; from her description it would appear that but a very small portion of the gland was removed with it. The wound made soon cicatrised, but the scar was very painful; it soon indurated, and about a year afterwards formed an ulcer, which has never since healed. The ulceration is now about the size of the palm of the hand, surrounded by tuberculated edges and nodules in the adjacent skin. During the last year, after repeated attacks of erysipelas, which spread across the chest, the right breast has become hard and adherent to the skin, with retraction of the nipple. Very severe pain of a lancinating character has marked the whole course of the disease. *History.*—Is unmarried, and menstruated regularly until a year or two ago; is of a dark complexion, moderately stout, but pale and rather sallow. She thinks that she has not lost much flesh, but has for several years been prevented by pain from following her domestic employments. She is not aware of having ever received an injury to the part, but believes that the disease commenced spontaneously. One of her maternal first cousins died of cancer of the breast. Since admission the treatment has chiefly been directed to the improvement of her digestion and the relief of pain. On one occasion, the application to the ulcer of a bag of ice and salt, according to the plan of Mr. James Arnott, gave great temporary relief. She is commonly well enough to be out of bed, and there are no present indications of an approaching fatal termination.

Case 2.—*Scirrhus Mammæ of Twelve Years' Duration.*—Ann Johnson, aged 67, of tolerably healthy appearance, but somewhat pale, the mother of four children. Menstruation ceased when aged 51, and until 12 years ago she states that she enjoyed very excellent health; about that time she accidentally received a severe blow on the right breast, and soon afterwards noticed in it a small hard lump. For a considerable period it caused her no pain, and she took no notice of it; but, four years ago, its size induced her to consult a surgeon, who told her it was cancer, and proposed an operation. In the course of another year the skin had ulcerated, and sharp lancinating pains had begun to occur. The ulcer has never bled, but has continued to increase in size. Six months ago, sloughing of a large portion of the tumour near the axilla took place, having been preceded by acute inflammation and excessive pain. A large excavation was the consequence, the surface of which, after a time, cleaned, the cavity contracted, and cicatrisation took place to a considerable extent. For many successive weeks the breast continued quiet; afterwards, a second attack of acute inflammation, attended by sloughing, took place. The sore has now again cleaned, and she is in a comparatively comfortable condition, able to sit up all day, and be about in the ward. She has now been in the hospital for a year, during which time it has, excepting at the times of inflammation above mentioned, seldom been necessary to administer narcotics; she has had very much less pain than is usual, and thinks that she has lost neither flesh nor colour, in any perceptible degree, since the commencement of her complaint. No history of hereditary predisposition can be made out.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST.

Secondary deposits of cancer in the lungs, although tolerably frequent, very rarely simulate the later stages of consumption. They usually occur either as nodosities of various sizes, or as a general infiltration of the whole organ, which may proceed to such a length that the entire lung becomes one solid malignant growth. In which ever form the deposit occurs, it is, however, inept to soften and break down, and death usually cuts short the series of pathological changes before that process has commenced. Hence it is, that although the stage of tubercular disease in which loss of respiration and dulness on percussion are the main phenomena, is often imitated very closely by cancer, yet in regard to the more advanced

(a) We wish to draw the readers attention to a very important characteristic feature of the cancer-cell, which is well seen in both these engravings, *i.e.*, the well-defined nucleus, and its large, dark, blotched-looking nucleolus. As it regards the size of the cells, we must plead guilty to having fallen into a very constant fault of those who draw from the microscope, viz., of *selecting* specimens. The young observer must not be disappointed if he fail at first to discover such appearances as he is accustomed to see figured in books. Such illustrations consist usually of chosen features, and are seldom or never true portraits. The greater part of the cells, in this case, were not larger than that marked (1); and it was only after long search that we hit upon the larger ones. With this explanation, we hope not to lead astray. Some excuse should also be made to the fact, that it is extremely difficult to avoid in delineations a definiteness which is beyond the strictly truthful. According to our custom, a blood-cell has in each instance been introduced as a standard of size.

symptoms, pectoriloquy, gurgling, etc., the physician is rarely called upon to diagnose between the two affections. That such difficulty may occur, however, is evidenced by the following case:—

SCIRRHUS OF THE BREAST.—MULTIPLE CANCER OF THE SKIN.—DEPOSITS IN THE LUNGS, PRODUCING ALL THE SYMPTOMS OF PHTHISIS.—AUTOPSY.

[Under the care of Mr. HILTON.]

Jane Jacobs, aged 34, of very dark complexion, and much emaciated, was admitted May 21, 1852, on account of a scirrhus tumour in the right breast, attended with severe difficulty of breathing. The tumour was the size of a large fist, nodulated, and of stony hardness; it adhered to the walls of the chest, and involved also the superjacent skin, which had assumed a stretched and glistening appearance, and was, around the remains of the retracted nipple, commencing to ulcerate. It was subject to acute lancinating pains, which often kept her awake at night. On auscultingthe chest, bronchial breathing, bronchophony, and gurgling were heard beneath each clavicle, being most pronounced beneath the right. Pulse 88, soft and feeble; tongue red and fissured; lips dusky; face pale and sallow. She stated, that, as far as she knew, all her family had enjoyed good health, and none of them had suffered from either cancer or phthisis. She was married, and the mother of one child, now aged 15. Menstruation had been always regular. In youth she had been very stout, robust, and healthy, with the exception of being subject to attacks of dyspnœa and cough, which left her in the intervals quite well. These had during the last three years increased in severity; and for the last year she had never been free from shortness of breath, and had, on one occasion, spit up a small quantity of blood. The tumour in the breast had been first noticed a year ago, and had been painful only for four months.

From the evidence of advanced pulmonary disorganisation, the idea of attempting any operation on the tumour could not be entertained; and the treatment was accordingly directed solely to the relief of pain. During the following months, the condition of her chest was very frequently examined. She suffered every few weeks from paroxysmal attacks of extreme dyspnœa, during which the inspiratory murmur was very feeble, while expiration was prolonged, and attended by loud sonorous rhonchus. On these occasions, which usually lasted two or three days, the application of turpentine to the skin, and the internal use of a mixture of ether and laudanum, commonly afforded much relief.

During the few days immediately following the attacks of dyspnœa above alluded to, the amount of expectoration usually was much increased; at these times the gurgling heard beneath each clavicle became louded and better marked. In the intervals of the attacks, when the breathing was more comfortable, the expectoration was much less in quantity, and these mucous râles became proportionably diminished, but were never absent. Percussion over the lower portions of each lung gave a very clear note, but around both apices it was much duller than natural, being completely so in the right scapular and supra-scapular regions. Between the second and third ribs of the right side, anteriorly, an obscure bruit de pot fêle was elicited. The sputa were thick and adhesive, of a light yellow colour, streaked with white, muco-purulent, and possessing no offensive smell. As we have seen, they varied in quantity with the severity of the pectoral symptoms, being at times very profuse. The tumour in the breast increased to a very large size, and extended itself along the chain of absorbent glands into the axilla; its surface ulcerated in large patches, which were smooth and tawny, and surrounded by raised and very hard borders.

In June there began to appear in the surrounding skin a crop of distinct scirrhus tubercles, which, in the course of time, spread over the whole surface of the front chest, the shoulders, and base of neck. At first about the size of split peas, they gradually increased until several were as large as half-crowns, and raised from an eighth to a quarter of an inch above the level of the skin. Their edges were abrupt, and surfaces flat, smooth, and glossy, presenting in the centre a stretched whitish appearance, and at the borders a pink and more vascular one. They were of stone-like hardness, but not very painful, and did not extend any deeper than the true skin. In some parts they occurred in almost confluent clusters, whilst in others they were quite solitary. Ulceration commenced in one of the largest ones a little while before death.

The exhibition of cod-liver oil in one-drachm doses three times daily appeared for a time to improve her strength, but the pain increasing, her nights, in spite of the free use of opiates, became more and more sleepless, and her constitutional powers gradually failed. The right arm having become much swollen, probably rom pressure of the growth on the axillary vein, added much to her sufferings. In the middle of October, several rather copious hæmorrhages from the ulcerated surface took place, which seemed to weaken her a good deal, and she died on the 24th.

Some suspicions were entertained that the case might prove to be one of the concurrence of phthisis and cancer; the physical signs of lung disease were exactly those of tuberculous cavities; there was the history of increasing difficulty in breathing, and of hæmoptysis prior to the appearance of the tumour in the breast; and, lastly, this tumour was schirrus, a form of cancer which, when present in the lungs, rarely or never softens down into cavities. By the naked eye, at the *post-mortem* examination, these suspicions were confirmed rather than otherwise. The upper halves of both pleural cavities were obliterated by extremely tough bands of adhesions. The apex of the right lung was so much disorganised, that, in attempting to remove it, the fingers readily lacerated its texture; an excavation, capable of containing a large egg, was seen in the front part of its lower portion. Numerous other smaller ones existed in the upper portion, and the intervening lung tissue was consolidated, partly by chronic inflammation, and partly by the infiltration of a greyish-white deposit much resembling tubercle. The same condition, in a less degree, existed also in the upper half of the left lung. The cavities were for the most part destitute of anything like lining membrane, their walls being ragged and composed of condensed pulmonary tissue. In no part were the masses of deposit larger than a pea, but they frequently joined so as to circumscribe a portion of the natural structure. Although mostly opaque, some of the smaller points were firm and semi-transparent. The lower lobes of both lungs were crepitant, and their anterior surfaces extensively emphysematous. Numerous small and isolated masses of deposit were scattered through their lobules. In all parts of the lungs, but much more marked in their upper halves, were places in which the pulmonary pleura was depressed, and as if puckered in, and, on cutting down over these, small masses of extremely hard, earthy substance were found. These lumps were more like solid dry bone than chalk, and varied in size from a millet-seed to a large pea. The bronchial glands were not enlarged.

The heart was twice its natural size, its walls being thick, and the cavities dilated.

The abdomen was not permitted to be opened, but, from a very hurried manual examination, no disease of its viscera was detected, and none certainly existed in the liver.

The tumour of the breast was a good example of scirrhus; it was very hard, and cut with a crunching sensation; its section was pale, fibrous-looking, and yielded, when scraped, a creamy juice. A microscopic examination removed all doubt as to the nature of the deposit in the lungs; it showed abundance of large caudate cells of various shapes and sizes, each containing from one to three large distinct nuclei.

This case affords another instance of the association of cancer with long-standing emphysema of the lungs. The degree in which both the symptoms during life and the naked eye *post-mortem* appearances simulated those of phthisis was most deceptive. At the autopsy, not only were there large ragged cavities and deposits in all parts of the lung, resembling tubercle in all respects, excepting in that they were more succulent, but numerous cretaceous concretions were also found. We have frequently seen examples of the degeneresceence of cancer into chalk, not only in the lungs, but in other parts. In a case of Mr. Quain's, at University College Hospital, a half-bony mass was found in the middle of a large encephaloid growth from the lumbar glands, removed from a patient who had died after excision of the testis. The chalk has generally appeared to be harder and less friable than that resulting from tubercular transformation.

The series of Scirrhus Cancer cases will be resumed next week.

PRESERVED MEATS FOR THE NAVY.—Government, after the various specimens they have had of contract meats, have at length, we are informed, wisely decided to supply henceforth from their own resources, instead of by contractors, as hitherto, salt beef for the Navy, in order that implicit reliance may be placed on the good quality of this article of consumption. Thirty bullocks have for the last four or five weeks been slaughtered weekly at the Royal Clarence Victualling-yard, Gosport, and the beef there carefully cured under the vigilant and zealous superintendence of Mr. John Davies, R.N., the master attendant of thatestablishment. An order for the supply required for the vessels about to proceed to the Arctic regions was completed at this yard on Thursday, the beef being of prime order, and far superior, both in quality and curing, to that heretofore obtained

SCIENTIFIC LECTURES.

HUNTERIAN LECTURES ON THE ANATOMY AND PHYSIOLOGY OF FISHES AND REPTILES.

By RICHARD OWEN, F.R.S.,
Hunterian Professor to the College.

This Afternoon, March 26.—[Lectures III.] and IV.—Skull of Fishes; its modifications in cartilaginous and semi-osseous fishes exemplify stages of cranial development in higher animals. Skeleton of Lepidosiren. Bones of the head in osseous fishes; large proportional size of the skull, and its firm connexion with the trunk; its general form and manifold functions; prevalence of the squamous form of suture. Principal prominences and cavities of the skull; classification of its bones; those of the endo-skeleton arranged in segments; the segments defined. Neural arches, with intercalated sense-capsules. Hæmal arches and appendages; their special modifications and denominations as the "palato-maxillary," "tympano-mandibular," "hyoidean," and "scapular arches." The splanchnic branchial arches. Modifications of the pectoral and ventral fins; their special and general homologies. Ichthyological abbreviations and formulæ of the fin-rays explained. Advantages of symbols in anatomical description.

Tuesday, March 29.—Lecture V.—Dermal bones of the skull illustrated by that of the Sturgeon. Relations of dermal bones to mucous duets. Homologies of the opercular bones. Dermal bones of the trunk. "Lateral line." Structure and Development of scales of fishes; their kinds, and the orders of fishes in the system of Agassiz defined. Relative geological age of Cycloids, Ctenoids, Ganoids, and Placoids. Embryonic characters of primæval fishes. Development of fins; permanent arrests of its stages in extinct fishes. Teleology of the skeleton of fishes, or its prospective relation to their sphere of life. Adaptation of the gristly skeleton of the Shark and Sturgeon to their respective habits. Final purpose of the large head of fishes. Continued growth of cranium, how adjusted to restricted growth of brain. Advantages of the absence of a sacrum, and of the restricted development of the homologues of arms and legs. Functions of the different fins.

Thursday, March 31.—Lecture VI.—Myology of fishes. General disposition of their muscular system in segments, or "myocommata," corresponding with the vertebræ. Modified myocommata of the head. Muscles of torpedo. Muscles of the pectoral fins and of the ventral fins. Characters of the myonine or muscular tissue in fishes. Red myonine in warm-blooded Scomberoids. Action of the muscles of fishes in swimming, leaping, flying, and wielding their various weapons.

Saturday, April 2.—Lecture VII.—Neurology of fishes. Simple neural axis of Lanceolet. Natural division into "brain" and "spinal marrow" in other fishes. Characters of medulla spinalis or "myelon," myelonal ganglia and canal. Four primary segments of Brain:—*Epencephalon*, including the medulla oblongata and cerebellum; *Mesencephalon*, including the third ventricle, optic lobes, hypoaria, hypophysis, and conarium; *Prosencephalon*, including cerebral crura and hemispheres; *Rhinencephalon*, including olfactory lobes and their crura. Membranes of the neural axis. Homology and physiology of the primary divisions of the brain.

Medical Times & Gazette.

SATURDAY, MARCH 26.

MEDICAL REFORM.

The thanks of the Profession are unquestionably due to the Royal College of Physicians for the liberal contribution made by that distinguished body to the cause of Medical Reform; and we may take occasion to congratulate the College, not only upon the lofty position which it holds among the scientific corporations of the present day, but also for the graceful manner in which it has yielded its ancient prerogatives to the demands of the medical public, and has accommodated its principles to the advancing spirit of the age. Not many years have elapsed since we regarded the College in the light of a West-end club, and little more; its portals being opened to the *alumni* of Oxford and Cambridge, where medical knowledge could not be obtained, and closed against the pupils of other seats of learning, where medicine was flourishing in meridian splendour. At the time of which we write, the entrance into the College was little else than a formality to the favoured few; while no amount of learning was thought to compensate for the want of academic *prestige* in the rest of the Profession. We have gradually seen a better spirit presiding over the affairs of the College; its honours have been opened to all who were competent to pass the necessary examinations; and the examinations themselves, to which all candidates have alike been subjected, have been such as to uphold the dignity of the College itself, and to promote and encourage the advancement of medical science.

The step which the authorities of the College are now about to take in procuring a new charter from the Government, will, we think, still farther justify the commendation we have just expressed. If this measure should take effect, the constitution of the College will be entirely altered,—instead of being merely a College of London practitioners, it will become a great national institution of Physicians, and we have no doubt that all those physicians who have not yet joined the College will be happy and proud to do so.

But while thus giving due honour to the College for the course which it is now pursuing, and wishing it success in its future and more enlarged sphere of operation, we cannot omit asking ourselves the question, What is to become of the General Practitioners in the new order of things?

We have formerly expressed our opinion, that the Profession might very conveniently be divided into two great classes, as is done in most countries except our own, namely, Physicians, who practice only medicine, and Surgeons, who devote themselves more particularly to those diseases and injuries requiring manual interference; and we might state further, that we could wish the dispensing of drugs to be altogether taken away from the department of medicine and surgery, and handed over to the pharmaceutists. But a somewhat extensive field of observation and experience has led us to the conclusion, that, whatever may be our own views of the matter, the practice of the great mass of the Profession in supplying the drugs which they prescribe, is in accordance with the wishes of the public. This system of combining the prescribing and dispensing departments has been vigorously denounced by most of the authorities who preside over the destinies of the Profession, and is, in fact, encouraged by none; nevertheless, conventional usage has sanctioned the custom, the public are satisfied, and the Profession must necessarily accommodate itself to circumstances.

But, like some other conventional usages, the kind of practice to which we allude is capable of being defended upon rather strong grounds. In the first place, considering the past and even present condition of the pharmaceutical business, the public are very naturally inclined to intrust the preparation of medicines to those who have afforded some testimony of their professional education, rather than to those who have afforded none whatever, and whose chief claim to confidence rests upon the display of some red and green bottles in their shop windows. We must here be considered as intending no disrespect to the members of the Pharmaceutical Society, whose efforts we have formerly had occasion to notice with approbation; but the position of that Society and of the trade in general is not yet so firmly established as to invalidate our argument.

In the next place, there are a large number of persons among the middle orders of society, and we may say the whole of the lower classes, who are unable or unwilling to pay for medical advice and also for medicines, and to whom the practice of receiving medicines from the hands of those who prescribe them is both convenient and economical. If this practice were to be abolished, the medical man must sacrifice a large proportion of his income, which would thereby fall into the hands of the chemists and druggists; and we cannot say that we think that this change would be beneficial except to those who would be directly interested in a pecuniary point of view.

Thirdly, it is clearly impossible, in many localities, and

at certain times, to separate the supply from the prescription of medicines. Whatever may be the facilities afforded for the division of labour in the Metropolis and the great provincial towns, in the country districts it is imperative upon the medical practitioner to send his medicines, otherwise much valuable time must be lost in sending backwards and forwards many miles to the chemist and druggist, even if we suppose that one could be found.

In the last place, we may mention, that the custom of employing practitioners who dispense their own medicines is by no means imperative upon the public. There is no law to compel practitioners to supply drugs, and no corporate authority even to recommend their doing so. There are numerous practitioners who confine themselves to prescribing, and to whom the sick may resort if they think proper; and we need hardly remind our readers, that any person may practise as a physician or a surgeon, with or without a qualification, who chooses to do so, without any fear of consequences; the public are at liberty to employ any such person if they please; and in this free country it has been even laid down from the judicial bench, that if any person, however ignorant, administers poisons to still more ignorant patients, no penalty is incurred, even if death should ensue.

Thus we find, that there is pretty nearly a free trade in medicine; and we confess that we are among those who think that in this respect the "trade" is a little too free. The new Charter of the Royal College of Physicians will, we hope, restrict the free trade, so far as concerns that body; will make the title of doctor or physician a really respectable and honourable one, and will afford a guarantee to the public that they will be supplied with the best article in the chief department of the Profession.

But as we believe that the General Practitioner will still hold his ground in public estimation, and that his services will as heretofore be required by the great bulk of the community, we have a right to demand that *he* also should be as highly educated as circumstances will allow. We shall therefore adhere to those principles which we have ever professed and steadfastly maintained. Those principles may be summed up in a few words; namely, that the lower classes have as much claim to be efficiently attended in their ailments as the higher ones; that the practitioners whose lot is cast in the provincial towns and villages should be as competent to treat disease as their more favoured brethren in the Metropolis; that therefore the General Practitioners should be *well and efficiently educated;* and lastly, and most emphatically, that in any reforms concerning this section of our fellow-practitioners, THE CONDITIONS OF SUCH REFORMS SHOULD BE DETERMINED BY THEMSELVES.

THE OUT-PATIENTS AT HOSPITALS.

THERE is no medical subject of such paramount interest to the public or to the Profession, and yet of which so little is generally known, as the management of our public hospitals. Men who have been educated in them know little enough and care little enough about the matter, but the public —positively nothing. Time-honoured abuses have grown round some like ivy round a church tower; they are thought to be almost ornamental. True, Hercules lived not in every age, nor can we now expect the Augean stable to be cleaned out in a day; but a little frequent sweeping here and there may, we trust, accomplish part of the task in time.

The first point to which we would especially call the attention of the "authorities," as well as the public, is the management of the out-patient department. The system of giving relief to out-patients is one of the utmost importance; it doubles the capacity of the institution for relieving suffering, while it affords the most favourable opportunities for acquiring knowledge of the treatment of many affections not generally admitted into the wards,—affections, moreover, which constitute the bulk of those that fall under the hands of the practitioner. In the out-patients' rooms the student ought to study the means of checking incipient disease; while in the wards he studies how to treat the same disease in its advanced and aggravated forms. Practically, however, but little use is made of this department of the hospital. The attendance of the student is never required there, seldom given, and always irregular. At some hospitals, obstacles have been even thrown in the way of the medical attendant; and the estimation in which this department is held by "authorities" may be gathered from the observation dropped by a Governor of a Royal Hospital at a General Court, viz., that a physician might "do very well" for the out-patients who was not at all qualified for the responsibility of a ward! And how is it with the patients themselves? Many come long distances to some of the hospitals at an hour so early as to be in danger of suffering from the morning chill, and they do this at the risk of being unattended to, even after admission and waiting many hours, or of being handed over to the care of students who are debarred by "Regulations" from prescribing anything beyond "domestic medicine." Ought this to be? Surely the course that should be pursued is plain enough. If the number of applicants be greater than the officers of the charity can attend to, the admissions should be limited. Instead of this, however, numbers are allowed to accumulate merely to swell the incredible figures in the annual speech of some self-congratulating treasurer. Or the working staff might be increased to perform the duties thoroughly, instead of being diminished in number or jealously restricted. But, perhaps we are wrong. The healing of poor sufferers may be of less importance than the convenience of the apothecary, the sound of eloquence, or the jealousy of officials.

THE VACANT EXAMINERSHIP AT THE UNIVERSITY OF LONDON.

THE Examinership in Materia Medica and Therapeutics left vacant by the lamented decease of Dr. Pereira, is shortly to be filled up by the Senate. We understand that there are several candidates in the field, and among those who are mentioned we find the names of Dr. Royle, the Professor of Materia Medica at King's College, who is well known for his valuable researches into Indian botany; Dr. Garrod, the Professor of Materia Medica at University College, whose contributions to chemical and microscopical pathology, as well as his pharmaceutical productions, have earned for him a well-deserved reputation; Dr. Robert Dickson, the author of the articles on Materia Medica and Therapeutics, in the "Penny Cyclopædia;" and Dr. Ballard, a distinguished *alumnus* of the University, whose work on Materia Medica (in conjunction with Dr. Garrod) has become a text-book in the schools, and who is further known by a very accurate and elaborate work on the Diagnosis of Abdominal Disease. Where the merits of all the candidates are so great, the Senate will have no difficulty in making a choice which will be acceptable to the Profession, as the appointment of any one of the gentlemen named would do no discredit to the Metropolitan University; nevertheless, we must venture to hope, that the claims of the University Graduates will

not be overlooked, and to suggest that, where other things are equal, the balance might very fairly be made to turn in favour of those who have already won honours at their Alma Mater, and who, from being students, may reasonably aspire to the places of dignity and emolument which the Senate has in its power to bestow.

FAREWELL ADDRESS OF DR. TODD
ON HIS
RESIGNATION OF THE PROFESSORSHIP OF PHYSIOLOGY AT KING'S COLLEGE,
March 21st, 1853.

Gentlemen,—When, in October last, I concluded the Introductory Address with which I opened the medical session on behalf of my colleagues, with the remark, that it was not likely I should ever again appear before you in the same capacity, I did not anticipate that in so short a time I should have been led to resign the chair which it has been my privilege to hold in this College for seventeen years; but having, during the session now nearly concluded, experienced many impediments in the performance of the duties of my chair, from engagements which I could not reject or put aside, I felt that the time was come when it became a duty to withdraw from a post involving great responsibilities, and demanding for the efficient discharge of the obligations it imposes a large expenditure of time and strength.

With these feelings I have placed my resignation in the hands of the Council of the College, and it has been accepted from the end of the present winter session. I hold office, therefore, only until the end of the present month.

I have asked you to meet me here to-day, that before I lay aside my Professor's gown, I may explain to you the cause of my retirement, and give some account of the stewardship which for so long a time has been committed to my charge.

You know, gentlemen, that there is none of the natural sciences which, for its successful cultivation, needs more personal examination and research than physiology. In the necessity for close and careful observation it stands second to none; not even to chemistry. The work of the chemist is, in many respects, of an easier and less absorbing kind. He may, indeed, employ another to do a great deal of it for him; but the physiologist must see with his own eyes, and, in many instances, he must dissect with his own hands; to satisfy himself thoroughly upon disputed or doubtful points he must perform his own experiments, often not the most agreeable, or at least he must witness their performance, and his time will often be largely drawn upon to watch their results with the necessary care.

No man, you may be assured, has any pretension to teach this great and most important science, who has not for some time previously studied it in the manner I have described, and who is not prepared to devote himself to it in the same way, more or less, whilst he continues to teach it. Moreover, there are now so many good workmen in the field of this science, scattered over all parts of the world, whose contributions are daily increasing the vast stock of facts already accumulated in it, that the teacher of physiology must lose no opportunity of keeping up his knowledge of the current literature, while he takes care not to overlook the writers of a former age.

You will, I think, admit, that labours such as these cannot easily be pursued amid the distractions of practice, as well in public as in private. I need not explain to you, that a candidate for public favour as a practising physician or surgeon in a great town must be accessible at all times, and must be prepared to leave his most cherished pursuit, or the most interesting investigation, to obey the summons of a patient in distress. The more liable one is to interruptions of this kind, and the more engrossing are the details of the ordinary daily routine of attendance upon the sick, the less time and opportunity will there be to devote to scientific pursuits.

In a word, gentlemen, such has been my lot. Each succeeding year has brought with it increasing demands upon my time and attention in one direction, and with them has created fresh obstacles to pursuits in the other direction. Nor have I been insensible to the growing difficulty of continuing in my position; but I have been reluctant to yield to its pressure until I felt perfectly certain that I could no longer do full justice to you. This feeling has been greatly strengthened during the session just ended, and has induced me to take the step which leads me to address you to-day for the purpose of severing my connexion with you as your Teacher of physiology.

Whatever opinion you may form of the justice of the views I have expressed to you on this point, I am sure you will agree with me, that, when one, who holds an important public position, feels that, from any cause, he is unable to fulfil the duties of that position to his satisfaction, it becomes incumbent on him to retire from it. You will readily believe me when I tell you, that it was not without considerable reluctance that I yielded to a conviction of this kind, and resigned a position at once of honour and of dignity, rendered peculiarly agreeable to me by associations of the most pleasing kind, which had extended over a long period of years. And I was slow to take this step for this additional reason, that I felt sure that my retirement from the chair might open questions upon which there would probably arise differences of opinion which it would be desirable to avoid, and which might create difficulties. I have every reason, however, to believe, that all questions arising out of this step will be solved without difficulty by the disinterested judgment and the good sense of those eminent men, members of the Council, who take the most lively interest in the affairs of our medical school.

And, gentlemen, if you will bear with me for one minute more, while I speak of *self*, I will add an additional argument, which had great weight with me, with the justice of which I hope you will coincide.

It appears to me, that when a man proposes to devote himself to the practice of an honourable profession, he has a twofold duty to perform; first, to fit himself to the utmost of his ability for the practical duties of that profession; and, secondly, having done so, it is incumbent on him to divest himself as far as possible of every engagement which may interfere with his bending his thoughts and attention to the various anxious, difficult, and often perplexing questions which are continually arising in the course of his professional practice. Every member of a liberal profession should keep it constantly in view that he exercises his calling not simply for his own personal benefit, but for the public good, and for the good of his profession at large. So every practising physician or surgeon, whether the sphere of his labour be within wide or narrow limits, should bear in mind, that in the successful application of his art by fair, honourable, and truthful means, is involved the repute and estimation in which his profession is held by the public at large. Let each of us act under the feeling, that to himself specially is committed the keeping of the honourable character and the scientific credit of our common profession, and he will have the strongest motives, not only to eschew everything that savours of charlatanical pretence, but to seek for and ensure the highest means of moral and intellectual culture.

For two-and-twenty years, gentlemen, I have assiduously employed myself as a teacher of anatomy and physiology, and, during the greater portion of that time, of clinical medicine. I felt that the best road to practical knowledge was through those sciences which all admit to be its true basis, and that, in cultivating these subjects with a view to teaching others, I should pursue them under circumstances the most favourable to enable me to apply them to practice. In learning to teach others, and in teaching others, I felt that I was gaining the best instruction for myself, and acquiring the best education for the practical duties of my profession. Having, then, passed through this earlier ordeal, the time has now arrived when I should devote my attention and my time to the practical duties of my profession, whether they be exercised in behalf of the poor in a public hospital, or in private practice.

But, in pursuing this course, I have done no more than imitate, at a great distance, and as a very humble, though sincere and earnest, follower, the example set by the greatest men who have adorned our profession,—whose names and actions should always be held up as beacons to guide those whose lot is cast in the same walk of life. But let me add, that, in taking for my guide the examples of the Hunters, and Baillies, and Abernethys, and Coopers, of former days, and of the Brodies, and Brights, and Lathams, and Greens, and Watsons, of the present day, I was not led by an ill-regulated ambition to imagine that I could reach the high

position attained by those distinguished men. I was content to feel, that, in following the path which they had trodden, I could not go astray, although my weakness should compel me to stop very far short of the pinnacle which was easily attained by them. Let me add, that it is by such a course as this that you must seek for eminence in your profession; and, as my eye wanders over this theatre, it lights on the familiar faces of many who have already afforded the highest promise of future professional distinction.

Gentlemen,—The chair which I have had the honour to hold for so long a time in this College, and which I now publicly resign, was first founded in 1836, and I was myself its first occupant. It was no unimportant matter for science, that a special chair of physiology and general anatomy—or, as I should myself prefer to designate it, of physiological anatomy and physiology—should have been founded in a great Institution like this. The establishment of such a chair afforded the means of directing the attention of young men to a subject at that time very imperfectly taught, and, from the actual state of the science, invested with infinitely less interest than it can command at the present day. The period which has elapsed has been productive of some of the most important results and of the brightest discoveries in physiological science—both in this and other countries—and the literature of the science, both at home and abroad, has increased to an extent truly surprising, to which I suspect there is no parallel as regards any of the other branches of natural knowledge.

In that space of time the science of minute or microscopical anatomy has been almost created. Our knowledge of the intimate structure of most of the tissues had made but little advance since the time of Leuwenhoek and of Fontana, both of whom flourished in the 18th century; yet now there is scarcely a tissue or organ of the body of which the teacher cannot describe and demonstrate the anatomy in the most satisfactory manner. It may be stated with perfect truth, that no part of the animal body has been left unexplored within that period; and, although many parts have as yet baffled the laborious scrutiny that has been directed upon them, a wonderful mass of facts has been brought to light. Not very long antecedent to the year 1836, the attention of many anatomists in this country and on the continent was directed to the use of the microscope in the investigation of minute structure. The instrument was still in a very imperfect state, but the little progress which had been made stimulated opticians to increased exertions to improve it, both optically and mechanically.

Already, with imperfect instruments, Dr. Sharpey had made his interesting and valuable observations on ciliary movements, and Dr. S. Boyd on the mucous-membrane of the stomach; and in Germany Von Baer and Wagner had employed it for examining the ovum, and Purkinje and Deutsch had made some progress in investigating the structure of cartilage and bone. But with the improved construction of the instruments there sprang into activity a host of observers, who quickly changed the face of science, and converted the chaotic state in which it then existed into its present well arranged and orderly condition. And I am sure you will forgive me if I yield to at least a pardonable weakness, and here mention that, among this host of observers, I find the names of many who were once distinguished members of the physiological class of King's College. Of those whose names are best known by their contributions to science are those of Bowman, Tomes, Simon, Smee, Inman, Johnson, Brinton, the two Salters, and Beale.

Now, let me not be misunderstood. I do not claim for myself, or for the chair of which I have been the unworthy occupant, any share in the merit which belongs to those beautiful observations which have so clearly demonstrated the minute structure of voluntary muscle, nor of those still more important researches which have unravelled the minute structure of the kidney to the perfect satisfaction of all subsequent observers.

Nor do I claim any share in those admirable investigations into the structure of the teeth which have given to their author an European fame; nor in that classical monograph on the structure of the Thyroid and Thymus, which most deservedly carried off the highest prize for physiology which this country affords. But I do console myself with this reflection, that whatever the authors of these well-known researches may have heard from me, either *ex cathedrâ*, or in our more private communications, they found nothing to divert them from physiological pursuits, nor did they derive anything from their connexion with me but the fullest encouragement to follow the natural bent of their genius.

And I may add, that, had there been no chair of physiology here; had it been otherwise than that that subject received special attention in this College, may it not be considered probable, that the turn for original investigation which my much-valued friends so early exhibited might have been directed into some other channel, and have produced results less valuable for science?

There are those, I know, and some for whose opinions I entertain the greatest respect, who regard the establishment of a special chair of physiology as an unnecessary refinement, and uncalled-for for the purposes of medical education.

But in this view, I need scarcely say I cannot concur, nor do I think it can be held by any one who does full justice to the great extent and importance of physiological science in the present day. To be taught effectively, physiology must be taught in intimate union and connexion with anatomy; and, so extensive are the details of that minute anatomy which is especially physiological, that it must be separated from the coarser or the topographical anatomy, or that which has particular reference to the mechanics of the body, and to the operations of surgery. Physiological anatomy is indispensable to a knowledge of physiology, and lies at the root of all exact pathological science. I cannot better illustrate this than by referring to the striking manner in which the discovery of the true structure of the kidney, and of the exact relation of its blood-vessels to its secreting portion, has led the way to a vastly-improved knowledge both of the pathological anatomy and the pathology of the kidney, for which we are largely indebted to my friend Dr. George Johnson. And I may likewise refer to the gradual and remarkable change which is coming over our views of the pathology of cerebral apoplexy, which has hitherto been looked upon as a sthenic disease of hyperæmia, but which may now be regarded, in a large proportion of cases, as one of asthenia and anæmia.

And, when I look around me, and see how many men have gone forth from this College into active life well grounded in the principles of physiology, and, through them, in those of pathology,—men, it may be, a large proportion of whom are and will be unknown to fame,—yet each of whom will exercise, in his own sphere, an influence in the promotion of sound views of practice,—I cannot but feel myself at liberty to affirm, that the establishment of a chair of physiology in this College has contributed its quota to the promotion of medical science in this country, and aided in giving an impulse to the zealous cultivation of minute anatomy. Doubtless, it would have done more in this respect, had its first occupant been endowed with greater powers, or used those which he possessed more sedulously; but I may freely state, without any fear of contradiction, that, during the last five years, the efficiency of the chair has been greatly enhanced by the association of Professor Bowman in it.

But let me do justice to other institutions. Simultaneously with the establishment of the chair of physiology here, a similar chair was instituted in University College, which, filled as it has been by the ability and learning of Dr. Sharpey, has given a great impulse to physiological research. It is remarkable that these two chairs in the rival colleges should have been the first of the kind instituted in England. Some years afterwards a similar chair was founded at St. Bartholomew's Hospital, of which my friend Mr. Paget is now the worthy and efficient occupant. Chairs of physiology had existed in the Universities of Edinburgh and of Dublin under the title of "Institutes of Medicine," being, in fact, the application of physiology to pathology. And there are many now engaged in the active duties of their profession who will gratefully acknowledge their obligation to the valuable lessons of the able and excellent Dr. Alison,—a man not more distinguished by the depth and soundness of his views of physiological science than by every good quality and excellence which can adorn the character of the Christian physician and philanthropist. And I am glad to acknowledge my own obligations to the similar chair in the University of Dublin, filled then by my distinguished friend Professor Graves, well known throughout Europe by his contributions to physiology and clinical medicine. From him I first imbibed a taste for physiological inquiry; and under his guidance and direction my first studies upon that subject were pursued.

How much more should I have rejoiced to make this public acknowledgment, as I have often done privately, were my friend able to hear it! But, alas! this day's post has brought me the sad intelligence of his too early removal,—no longer ago than at noon yesterday,—from science and from a large circle of sorrowing friends. No physician ever earned a high reputation more justly and more honourably than did Dr. Graves; no man bore himself more correctly in all the relations of life; and, from the narrative of an intimate friend, no man ever quitted life with a calmer resignation to the will of God, or a more thorough reliance on all that the Christian holds most dear.

Gentlemen, in looking back over the long period during which I have filled the chair of physiology in this place, I am bound to acknowledge—and I do so with unfeigned thankfulness—how much I have been indebted to the kindness, good feeling, and forbearance of your predecessors and yourselves. I am deeply conscious how many have been my shortcomings; but I hope you will permit me to say, in my own behalf, that they were those of the head and not of the heart. When I have fallen short, it has been from the defect of natural powers, or from a failure of strength and energy, not from the want of the most earnest desire to use my best exertions in your behalf, and to promote your welfare. Indeed, in this respect, I will not readily yield to any one. Intimately connected as I have been with medical students during the greater part of my life, no one has had better opportunities of knowing their needs, no one has more zealously laboured to increase their facilities for education and study.

Gentlemen, I wish that it were possible for me to collect here before me all who have ever occupied these benches as pupils during my tenure of this chair. I could then address myself to each and all, and assure them of the feelings of cordiality and gratitude with which I can never cease to think of them. Let me regard you as the representatives of those who have gone before you, as well as in your personal capacities; and let me beg of you to receive, for them and for yourselves, my warmest, most cordial, and most grateful thanks.

Happily for myself, Gentlemen, my secession from the chair of physiology will not separate me from you completely. Retaining as I do, in concurrence with the kind and unanimous wish of the Council, my office of physician to the Hospital, I shall continue to work with you at Clinical Medicine, and shall have abundant opportunity of assisting in your instruction and promoting your best interests.

One word you will doubtless expect from me in reference to my successor. Would that I could say that that successor will be no other than my dear and valued friend who has so long been conjoined with me in physiological pursuits and in this chair. But, Gentlemen, as I always anticipated, the public have early learned my friend's great and valuable qualities; and the professional employment which is his gain, and in no less degree that of his patients, will, I fear, deprive you of his assistance, at least for the whole session. But I cannot doubt that the authorities of this College will continue to avail themselves of his services for a portion of the course, and that the vacancy created by my retirement will ere long be filled by one who, in conjunction with Mr. Bowman, will speedily increase and extend the reputation of the chair.

Mr. Shorthouse, of Carshalton, and the Charge of Perjury against Ann Duff.—Our readers will doubtless remember this case, the main facts of which are briefly these:—A few weeks since the defendant, Ann Duff, summoned Mr. Shorthouse for the funeral expenses of her illegitimate child, alleging that he had seduced her while under the influence of chloroform, and that the infant, which only survived its birth a few weeks, was the result of the connexion. From want of sufficient proof, however, the magistrates dismissed the case; and Mr. Shorthouse then prosecuted Ann Duff for perjury, the girl being sent for trial at Kingston, but allowed to remain at large upon her own and her father's recognisances. At the opening of the Court on Tuesday, the 22nd inst., the trial was called on for hearing, in due course, before Mr. Justice Coleridge, when the counsel for the plaintiff stated, that the prosecution would be abandoned, as he did not think there was sufficient evidence to convict the prisoner.

PROVINCIAL CORRESPONDENCE.

SCOTLAND.

[From our Edinburgh Correspondent.]

MEDICAL DOINGS IN THE NORTH.

Words would scarcely suffice to convey an idea of the excitement into which the medical world here has been thrown by my last epistles. One worthy Professor, on whom I have sought to confer a little of the notoriety he so much covets, has ever since the appearance of the first, been in a state which renders his friends not altogether without apprehension on his behalf. Determined to discover the writer, he has, if report say true, been guilty of sundry indiscretions, which have done him infinitely more harm than any allusion I ever made to him. Fortunately, he fixed on one as the perpetrator of the offence whose shoulders are broad enough to bear the burden, and who has, I believe, been amusing himself not a little at the expense of the indignant gentleman who thus unexpectedly stumbled against him.

I am rather at a loss to conceive what particular part of my effusions has so roused his ire. Perhaps a reference to the source whence he has borrowed some of his *original* discoveries. This is delicate ground. Let him beware; I have more of such discoveries in reserve. *Sat verbum sapienti.*

The great subject of medical interest during the past week has been the trial of Mullar *versus* Syme, which took place yesterday. The part which your journal has had in the matter may make a reference to it of more interest to your subscribers.

The case was tried before a jury, the court being presided over by the Lord Justice Clerk. When the former case, "Lizars *versus* Syme," was tried, the superior judge, the Lord Justice-General, presided. With some disregard, as is thought, to taste, the inferior judge had intimated at an early stage of this trial, that, had he presided on a former occasion, he would not have admitted a great deal of the evidence which had been brought forward on the other trial. Acting on this, he rigidly prevented the counsel for the defendants from entering on the question of the several publications, and thereby saved the necessity for a great deal of that kind of evidence which, on the former occasion, excited so much surprise, and certainly did not tend to elevate the character of the Profession.

The case went before the jury in the shape of two questions, which they were called on to decide.

First, Whether Mr. Syme, having represented Mr. Lizars "as long placed beyond the pale of professional respect and courtesy," and then having called Dr. Mullar "his assistant," he did thereby "falsely, calumniously, and injuriously represent the pursuer (Dr. Mullar) as the assistant and associate of a person who is described as having been long excluded from, and unworthy of, the respect and courtesy of the Medical Profession generally, and of his fellow practitioners therein."

Secondly, Mr. Syme having stated, "In estimating the value of my operation you proceed upon the supposition that the allegations of Mr. Lizars and his assistant, Dr. Mullar, are well founded; but in fairness to your readers, if not to myself, you should have mentioned that the statements of these persons, in so far as they attribute bad effects to the operations which I have performed for the remedy of stricture by division, have been declared by me to be all utterly devoid of truth," the jury were called on to decide "whether that represented Dr. Mullar 'as being united with Mr. Lizars in joint medical publications, and in the culpable propagation of false statements regarding diseases and medical operations of great importance to the health and lives of individuals.'" The case was most ably conducted for Dr. Mullar by the Dean of Faculty, who did all that legal ingenuity could do to convince the jury; who, however, after a very brief consultation, found unanimously for Mr. Syme.

Of the substantial justice of this decision there is, in the opinion of the Profession here, no doubt whatever. The verdict in the former trial, Lizars *versus* Syme, excited much surprise, and was thought to be rather a measure of scrimp justice to the former; but why an assistant should complain because his master is insulted, it is difficult to understand, and it seemed to require some considerable legal ingenuity to make the kick at the master reach the integuments of the man.

The question, however, is settled as far as a court of law can settle it; but it may well be asked, what advantage has either party gained? Mr. Syme has proposed a new operation, and has insisted that it can be performed without danger, and with next to the perfect certainty of a cure. On the other hand, Dr. Mullar publishes certain cases seen by himself and by Mr. Lizars, where

the cure was imperfect, and the immediate consequences severe and dangerous; the operation in one, if not two, of these cases being performed by Mr. Syme. Dr. Mackenzie has published one case operated on by him, which terminated fatally. Mr. Millar reports a case which he attended jointly with Professor Syme, where the constitutional effects of the operation were most severe. What are we to believe? Surely these are questions which among honourable men might easily be settled?—not, again, it is to be trusted, in jury courts, where, for the credit of our Profession, we trust seldom to see its members, and whose decisions can never have much weight, but in a manner which shall satisfy the medical intelligence of the country.

And, surely Mr. Syme, though victorious in these actions, may have learned from them a salutary lesson. His acknowledged position of eminence in the Profession, his possession of high talents, the success which has attended his career—all these should make him less sensitive to the opinions of others. Let him be less intolerant of criticism, more candid to his opponents, and, above all, less irritable, and fond of quarrel, and, if he cannot heighten his professional reputation, he will secure a larger measure of esteem, and pass through the remainder of his days with a less ruffled serenity. That he has been often unfairly treated we willingly allow, but this is one part of the price which he must pay for the greatness he has achieved, and the more the exaction is resented, the more is it usually insisted on. Let his journal, too, show a less exclusive spirit, and not condescend to be the vehicle of personal animosity and party hate. Could Mr. Syme achieve all this he would do more to win for his Profession a higher kind of medical reform than were he to secure for them the adoption, by the Legislature, of all the admirable suggestions which his pamphlet on that subject contained.

Some interesting discussions on mesmerism are reported to have taken place in the Royal Medical Society, occasioned by the reading of a series of papers on that subject by Mr. Braid, of Manchester. Not being possessed of ubiquity, I can give you no detailed account, further than that Professor Gregory attended to defend clairvoyance in this students' Society, and that Dr. Bennet, even on the report of one not likely to view him with favourable eyes, is said to have refuted the mesmeric Professor in a most masterly way.

A meeting of the Royal Physical Society was held on the 12th instant. The most interesting paper was one by Mr. Rhind, on the laws regulating the distribution of rivers and their principal water-sheds. The paper was an extremely interesting one, though, perhaps, scarcely professional enough for even an abstract in your columns. Mr. Rhind pointed out, that there existed a designed harmony of arrangement between the zone of the greatest deposition of moisture, and the distribution of the water-sheds which regulate the river courses, and showed to what a state of desolation the earth would have been reduced had a reverse arrangement existed. He further noticed that, with the exception of those rivers on the north side of the great northern water-shed, a large majority of the rivers of the earth flow in a south or south-easterly direction. The Nile being almost the only exception.

An interesting note was read by Mr. R. F. Logan on the exuviation of the chydorus sphæricus, as observed by him under the microscope.

In some of the Scottish Universities, the election of a Lord Rector affords an annual opportunity to the students of displaying their political sentiments in the choice usually of one of the leading statesmen. When the office was conferred on Sir Robert Peel at Glasgow, soon after the passing of the Reform Bill, the memorable banquet given him on that occasion formed a sort of rallying point for the Conservatism of Scotland, and these elections have ever since been invested with an importance which they do not intrinsically possess.

Edinburgh is free of the very questionable benefits attaching to such an office, but the students here have been doing their best to supply the deficiency, and get up a small amount of excitement. Certain debating societies have long had the privilege of meeting in a room in the College, and hence have received the designation of the "Associated Societies,"—the only ground of association being the possession of a common room, and their having an open meeting annually, at which delegates from each attend for the discussion of some of the great questions of the day. These bodies have resolved to choose an annual president, in the person of some distinguished statesman or author, that the students of Edinburgh might participate in the excitement of an election.

D'Israeli, Lord Campbell, the Duke of Argyle, and others, were applied to, but all declined, and last night Sir Edward Bulwer Lytton was elected without opposition.

I send you by this post copies of the *Melbourne Argus* of the 13th and 16th of November last, in which there appears an amusing medical trial, which you may publish in a condensed form for the edification of your readers. The defendant in the case, Mr. Alexander Hunter, is a Fellow of the Royal College of Surgeons of Edinburgh, and brother-in-law to Dr. Handyside. He enjoyed a somewhat unenviable notoriety here as a teacher of anatomy and a practitioner, and, I doubt not, this further episode in his career will be interesting to his Edinburgh friends. His opinion of Professor Syme cannot fail to be gratifying to that gentleman. Our only fear in printing it is, that, taken along with the result of the trial here, such fame achieved at once in the Jury Court of Edinburgh and of Australia may prove too intoxicating for the "Clinical Professor."

Mr. Hunter conducted his own case, and, in reply to one of his questions, the witness, a Dr. Thomas, says, "I don't know Syme." Mr. Hunter: "He's a Colossus, Sir,—a Colossus. Syme I worship, Sir. He's a small man." Dr. Thomas: "Small, Sir, but plucky. He kicked you out of the Royal Infirmary." Dr. Hunter: "Right again, Sir, right again," (with a low bow). Dr. Thomas: "Saw Crichton, of Dundee, perform"— Dr. Hunter (interrupting him): "Crichton, of Dundee, Sir! Johnnie Crichton, Sir, is my dear friend." (Much laughter.)

The forensic talents of Mr. Hunter will not surprise those who remember his Hunterian Orations in the College of Surgeons here. On this occasion, however, he had the gratification, which many a bad advocate enjoys, of gaining his case.

GENERAL CORRESPONDENCE.

THE HULL MEDICAL PROTECTION ASSOCIATION.

[To the Editor of the Medical Times and Gazette.]

Sir,—Before complaining of the unjust and ill-advised strictures on the Hull Medical Protection Association made by one of your Contemporaries, I must first make a few prefatory observations. The town of Hull, like all other large towns, is unfortunately troubled with numbers of persons who gain a livelihood by the practice of medicine, whose only qualification to practise seems to be their own ignorance and impudence. Stimulated by the success of these illegal practitioners, and most probably by the inactivity of the law to put down such practice, the druggists have in a great measure usurped the place of the general practitioner, and visit, prescribe, and send medicines with all the dignity and confidence of a legally-qualified member of our Profession. Indeed, it is the boast of a druggist, that his daily visiting list is larger than that of many a junior practitioner whose education has been all that could be desired, and whose qualifications to practise are undeniable. Then there are a few also in the town who hold but one qualification; some that of the Royal College of Surgeons, London, whose limited examination never inquires into the more important branches of medical science; and these few, in defiance of all honour, attend scarcely any else but cases which are strictly medical. These individuals, who, up to the present time, from mere courtesy, have been countenanced by the doubly-qualified members of our Profession, have now declared their right to practise medicine, on the tenable ground that they have passed a partial examination in surgery, but have not subjected themselves to any test as to their capabilities or fitness to act as apothecaries. Encouraged, puffed up, even complimented by the "leaders" in the *Lancet*, these half-qualified gentlemen have lately become so cock-a-hoop as really to suppose that the Editor for them will do everything.

That these crying evils should be remedied, that these abuses of our noble Profession should be rectified, there can be but one opinion. It is much to be desired that no person should be allowed to practise any branch of the Medical Profession without having first obtained a legal qualification. If a person be a member of the Royal College of Surgeons, let him practise surgery; if a member of the Apothecaries' Hall, let him practise medicine; if a member of both, let him practise medicine and surgery as a general practitioner. To accomplish these objects, to cause those who have no qualification whatever to desist from practising medicine, to maintain the interests of the Profession, to promote fair and honourable practice, are the earnest wishes of a number of the oldest and most respectable practitioners of the town, who have formed this Medical Protection Association. I beg to enclose a copy of our Rules for your perusal.

Having introduced to your notice the objects of the Association, let me now take a glance at a few of the arguments made use of by the *Lancet* in opposition to Rule 11, which states, "that any person practising as a general practitioner, with a

diploma of the Royal College of Surgeons only, shall have six months' notice given him to qualify as an apothecary, or to desist from practising as such:" and then let me demonstrate the injustice, the unreasonableness of the effusions of the Editor against this rule. In vain have I sought for any valid argument. The whole of his reasoning vanishes into "thin air," and leaves this impression on the mind, "that it is wrong to prosecute a professional brother if he has any qualification at all; that if he has obtained, by a partial examination, a diploma to practise one particular branch of his profession, he has a perfect right to practise all; and that the Apothecaries' Company have no right to prosecute any member of a College of Surgeons for practising as an apothecary without their licence." Then, after a long and verbose tirade, as diffuse as the number of pages over which it spreads, he says:—"We admit the fact, that the apothecary is the only legal general practitioner, and, consequently, only he should be allowed to practise generally." Wonderful judge! Again:—"We admit, that the examination of the College merely tests the ability of the candidate as to his competency to meet 'the common exigencies of surgery;' still, we contend, that the mere apothecary has no right to place himself in a higher position as a practitioner, even in a legal sense, than the mere surgeon." Most learned judge! Does all this argument give the mere surgeon a right to practise as an apothecary? I trow not, save in the pages where it first appeared. The Editor then says: "But the Hull Association, with a strange notion of the requirements of the age, have actually commenced a crusade against a member of the College. Their first shot has been fired against a professional brother, in the shape of a notice for him to 'qualify as an apothecary,' or retire from practice." Gently, Mr. Editor, you write too unadvisedly when you say, "the first shot has been fired." We have only snapped off a "cap," which you have thought fit to place on your own head. A little percussion from our Society may probably have the effect of enlightening your mind and opening your eyes to the fallacy of entertaining views, which, if carried out, would be so detrimental to the interests of the Profession. Our "first shot" has not yet been fired. The time has not yet come, but come it will, when the *Lancet* and the offenders will not think the Hull Association "too far north"

The *Lancet* has given particular prominence to the fact, that the Apothecaries' Company will not prosecute any member of the College of Surgeons for practising as an apothecary. This opinion has been gaining ground of late with medical students, whose desire is simply to pass an easy examination at the College of Surgeons, and leave the rest to the chapter of accidents. Compare the pass-lists of the College and Hall, and you will see that the College has a majority. Mr. Gibson, in his letter, pointed out to the Editor that he was mistaken in supposing that the Apothecaries' Company would not prosecute a member of the College; but the editor coolly assures Mr. Gibson, "that the law gives them the power, and a sense of justice has taken away the inclination." Sense of justice! to allow a person to practise that part of his Profession for which he has shown no competency, no guarantee that he is at all qualified! The Editor should have written, the *non*sense of justice. However, as the Editor would not give credence to Mr. Gibson, perhaps he will believe the Apothecaries' Company. The following quotation is from a letter received by me from the Apothecaries' Hall, in answer to a question put by the Hull Association, requesting the view the Company entertained respecting the institution of proceedings against individuals who have obtained the diploma of the College of Surgeons for penalties for practising as apothecaries without legal qualification:—"If the Society's attention is called to a case of unqualified practice as an apothecary, the fact of the individual complained of being qualified to practise as a surgeon, would not prevent the Society sanctioning the institution of proceedings for the recovery of the penalty; and it is obvious, that, if the Society were to allow of any exception in favour of the members of the College of Surgeons, they would virtually be repealing the Act of Parliament as regards such individuals,—a step which, they are satisfied, would be as mischievous as regards the public, as it would be in excess of the Society's powers, and in opposition to their matured conviction." The Editor will now, perhaps, think this *quæstio vexata* settled; at least as far as regards himself.

After expressing emphatically his disapprobation of the course being pursued by the Hull Association, the Editor, with a touch of the pathetic, cries, "Shame, then, upon the Hull Association for their unworthy proceedings in this matter!" As Gratiano said, "A second Daniel come to judgment. I thank thee for teaching me that word!" Does the Editor of the *Lancet* think it just that a person with only one qualification to practise, and that a surgical one, should practise every other branch of his Profession? Does he think that he who has only obtained one talent should take the same position and professional standing as he who has obtained five or ten talents? Does he think it morally wrong for the Apothecaries' Company to protect its members from the encroachments of individuals who set its laws at defiance? Does he think it consistent to advocate the claims of those who form but a small, refractory portion of our Profession,—whose aim is to get into that Profession with the smallest amount of medical acquirement, and by this means lower the *status* of the medical man? To those who are not in the secret, it really appears astonishing what an interest the *Lancet* seems to have taken in the defence of three or four half-qualified practitioners in Hull, and what an unprovoked antipathy he has shown towards the Hull Association from its very commencement.

Apologising for the length of my remarks, but hoping to address you again on this subject, I am, &c.

HENRY MUNROE,
Hon. Secretary to the Hull Medical Protection Association.

[Without coinciding in the spirit of some parts of this letter, we, nevertheless, think that it deserves a place in our columns. We have taken the liberty to expunge some personal allusions.—ED. *Med. Times and Gazette.*]

MR. TOYNBEE ON DEAFNESS.

[To the Editor of the Medical Times and Gazette.]

SIR,—I beg to make a few brief observations on Mr. Morss Churchill's letter published in the last number of your Journal:

1. *On the Closed Condition of the Eustachian Tube.*—As the paper on this subject is now under consideration at the Royal Society, I am precluded from entering more fully into the facts in proof of the view I have advanced, viz., that the guttural portion of the Eustachian tube is closed, and the air in the tympanic cavity does not communicate with that in the fauces, except during the momentary act of deglutition. I can, therefore, only state, that, from the experiments cited in the published abstract of my paper, from others detailed in the paper itself, as well as from the dissection of the ears of animals, there can remain but little doubt of the accuracy of the fact. It must, however, be borne in mind, that, although the guttural portion of the Eustachian tube is open only during the act of deglutition, it is of great importance that, during this act, its muscles should have the power to open it, so that mucus may escape from the tympanum, and air may be allowed an ingress and an egress. In cases of obstruction in the tube, the muscles are no longer able to open it, mucus collects in the cavity of the tympanum, the air within ceases to be of the same density as that without, the membrana tympani is deprived of its natural degree of mobility, and the power of hearing is consequently diminished.

2. *On the Supposition that the use of an Artificial Membrana Tympani is a Modification of Messrs. Tod and Yearsley's plan of inserting Lint and Cotton-wool into the Meatus.*—Having arrived at the conslusion, that for the function of hearing to be perfect, it is requisite that the tympanum, whose walls are so perfectly adapted to the production of resonance, should be a closed cavity, so that the sonorous undulations which reach it may be concentrated upon the membranes of the labyrinth, it occurred to me, that in cases of perforation of the membrana tympani the defective hearing power depended upon the circumstance, that these undulations were no longer confined to the tympanum, but were allowed to escape into and be expended in the meatus; it consequently suggested itself to me, that the function of hearing might be restored, by again rendering the tympanum a perfectly closed cavity. I, therefore, resorted to the use of an artificial membrana tympani, composed of a fine layer of vulcanised india-rubber or gutta-percha, and which answered my expectations completely. The paper on the use of the artificial membrana tympani is still before a Committee of the Académie des Sciences of Paris, and I purpose soon to publish it in a separate form. From the quotation made from the work of Mr. Tod, in Mr. Churchill's letter, it is evident that there is no analogy between the plan suggested by him and that by myself; and the following observations from Mr. Yearsley's pamphlet, entitled, "On a new Mode of treating Deafness when attended by partial or entire loss of the Membrana Tympani, associated or not with Discharge from the Ear," shows that his use of cotton-wool is on quite a different principle from that of the artificial membrana tympani. Mr. Yearsley writes:—"A small piece of wool, differing in size according to the case, and fully moistened in water, is introduced through the speculum to the bottom of the meatus, and adjusted superiorly, inferiorly, anteriorly, or posteriorly, according to the situation of the perforation and other circum-

stances connected with the case; but care must be taken that the entire opening be not covered, otherwise the experiment will not succeed." He also states, "It is far from my wish to discourage the attempts of others 'to place aright these magical bits of wool;' but truth compels me to add, that, simple as it would appear, it is an operation requiring the most delicate tact to manipulate with success, which great experience only can confer." The object of the cotton wool is subsequently stated by him to be "to support the remaining portion of the membrana tympani or the ossicula."(a)

3. *On the Regeneration of the Fibrous Laminæ of the Membrana Tympani.*—The conclusion to which I have arrived on this subject is, that the fibrous laminæ are not regenerated, but that a small aperture may be filled by cellular membrane, or by the dermoid layer, or even the epidermis, being prolonged over it.

18, Savile-row. I am, &c. JOSEPH TOYNBEE.

MR. PRETTY'S TOURNIQUET BANDAGE.

[To the Editor of the Medical Times and Gazette.]

SIR,—As a remark of Mr. Hovell's, in your Number of the 12th of February, may convey an erroneous impression of my uterine compress, I beg, with your permission, to notice it. Mr. Hovell states, that Mr. Harvey's plan of arresting *post-partum* hæmorrhage, by means of a basin and bandage, "involves the necessity of severe and even painful pressure, in order so thoroughly to effect the incarceration of the uterus as to preclude the possibility of its relaxing, and giving rise to hæmorrhage. Mr. Pretty's tourniquet bandage is open to a similar objection. The pressure is unmitigated." Now, one advantage that my compress has, is, that the pressure can be so easily regulated, the turning of the handle of the tourniquet either increasing or diminishing it at pleasure; whereas, in Mr. Hovell's truss, the pressure from the spring of it must be always the same.

Dr. Murphy writes:—"When a patient is bound up in this manner, (with a bandage and linen compresses,) she suffers no small inconvenience when she is recovering from the tightness of the bandage; there is the greatest possible desire to take out a pin or two to get relief; and, if so, the compresses are all deranged, and perhaps the hæmorrhage may be renewed. Several contrivances have been suggested to prevent an inconvenience of this kind, and at the same time to regulate the amount of pressure more accurately." Dr. Murphy then states, that the object of my compress is, "to maintain pressure on the uterus laterally as well as above the fundus, and to increase or diminish the pressure by means of the tourniquet; thus you may cautiously relax the pressure, or again increase it to any extent, without disturbing the abdominal bandage."

I should imagine in practice that the spring of Mr. Hovell's truss would be in the way if cold were needed to be applied to the vulva, and also in removing and applying napkins, to ascertain exactly the amount of the hæmorrhage. The supposed advantage is, its yielding with the movements of the abdomen in respiration, to allow of which the pressure cannot be sufficient in very severe flooding, and its doing so must endanger the uterus escaping from the pad, either superiorly or laterally. Certain it is, that there are no means of regulating the pressure, whether the hæmorrhage be severe or not. The spring of the truss cannot equal the great pressure that can be obtained by my compress; and, in severe cases, I am sure the utmost pressure that can be obtained by it is not too great.

Practical men now, I believe, rely chiefly upon pressure to arrest flooding; the question to be decided is, the method of applying it. The principle should be that of applying the greatest amount of it without pain to the patient, which can only be effected by its being equable and diffused, imitating in this respect the action of the abdominal muscles, without the yielding of them; and this, I believe, my compress effects. I should fear inflammation succeeding Mr. Harvey's plan of the basin and bandages, from its edge being pressed forcibly backwards. Mr. Hovell states, that the pressure of his truss "is direct against the promontory of the sacrum," which would not to me be an argument in its favour. Mr. Hovell further remarks:—"I have several times applied the truss, and directed the nurse to remove it in the event of its causing pain, or after the lapse of one or two hours, as the case may be." When severe hæmorrhage has occurred, the patient is not safe for hours afterwards, and until sleep has ensued. If the truss, then, cause pain, the pressure cannot be diminished, and the remedy is, the removal of it; whereas, in my compress, the nurse has only to keep the patient in a proper position to prevent the compress slipping, and to turn the handle of the tourniquet either way, according to circumstances; and, in the absence of the accoucheur, might be able to arrest the flow.

My compress might easily be made more perfect by having the tourniquet fastened to the pad and thigh-straps from it to the belt behind. These additions, however, would complicate the adjustment of the compress, which is now very simple; and if the patient be placed and kept in a proper position, they become unnecessary. Occasionally hæmorrhage will occur that no pressure over the uterus will arrest. A few years since I was present at an all but fatal case of hæmorrhage, in which the uterus was thoroughly well-contracted, and yet a discharge occurred, not in gushes but in a continued flow, as in venesection, and the blood was received in small basins. It was arrested by compression of the aorta, by means of a small book padded, and a tourniquet and straps out of an amputating case. The cause of the hæmorrhage here, I believe, was from laceration of the cervix uteri. If the uterine compress be employed in such a case, an additional pad, such as a pair of folded stockings would make, must be applied over the aorta to compress it.

31, Bayham-terrace. I am, &c. JOHN R. PRETTY.

(a) *Provincial Medical and Surgical Journal*, August 8, 1852.

TREATMENT OF YELLOW FEVER.

[To the Editor of the Medical Times and Gazette.]

SIR,—As doubtless it would be interesting to the Profession to know, after the melancholy intelligence which has been conveyed by every ship from the West Indies during the past few months of the ravages committed by the most fearfully malignant form of yellow fever which has appeared in that part of the world for many years, the symptoms, etc., of that dreadful disease, I beg to offer for insertion in your very valuable journal, should you deem them worthy, the results of my practice during a residence there, with the treatment I found most highly successful.—I am, &c.

DAVID LAKE FINLAY, L.R C.S.I., Surgeon.

Royal Mail Steam-ship Orinoco, Southampton.

During the prevalence of yellow fever in the West Indies, towards the end of last, and the commencement of this year, I was surgeon to the Royal Mail Steam Packet Company's Steamship, Great Western, stationed intercolonially, where I had ample opportunity afforded me of studying that fearful disease, and of arriving, in some measure, at the most appropriate treatment for it. We had been several times to Demerara during its prevalence there, and I had observed that it attacked chiefly the crews of the ships in the river, *i.e.*, in proportion there were more of the sailors attacked than of those resident ashore, several of the ships having been left without a single man. The same was the case as the disease travelled through the different West Indian islands, etc., etc.

The disease, as I have witnessed it, invariably made its appearance, without any premonitory sign, the patient appearing to be regularly struck down at once by it. I have, myself, seen them in some instances, eat a hearty breakfast, and two or three hours afterwards been called to see them, and found them labouring under a high state of fever, evidently showing the great malignancy which accompanied it.

The first symptom is a severe rigor, which, after a short time, passes away, and gives place to a most painful degree of heat, often causing the patient to cry out, "Let me have air, or I shall suffocate." Severe headache, confined to the forehead and eyeballs, sets in, with intense pain in the back and limbs; the latter has been frequently described to me as of the most excruciating character. The unfortunate patient writhes about in the greatest agony; the thirst is intense; the tongue covered in the centre with a white fur, and red at the tip and edges; the pulse 100 to 130; the bowels constipated, with, from the very first, suppression of urine; the face is flushed; the skin hot and dry, and the eyes have a most peculiar and indescribable appearance, which, in fact, I consider as quite diagnostic of thed isease. These symptoms last for an indefinite period (if not promptly treated.) The stages, however, laid down in books I have not found true in practise. The prostration of strength is excessive from the first; this I look upon as another good diagnostic sign. I have seen men struck down from perfect health to such an extent as not to be able to raise their heads from their pillows, in six hours from the commencement of the attack. In the course of from twenty-four to thirty-six hours the conjunctiva presents the characteristic yellow tinge, which gradually extends down the alæ nasi and corners of the mouth, and at about the third day (if the patient lives so long), becomes general over the body. The irritability of the stomach is excessive; the vomiting at first consists of bile, but afterwards merely the ingesta are expelled. The act of vomiting greatly resembles that of cholera—*i.e.*, takes place without any

apparent exertion on the part of the sufferer, or without any warning, as sickness of stomach, or otherwise. Delirium also sets in at a very early period, which, when it takes place (for I have seen many cases in which it did not appear), is generally of the "*ferox* character." As the disease hastens on to a fatal termination, the patient becomes very restless, constantly endeavouring to get out of bed. The face presents a most painfully anxious appearance; the eyeballs, all along much swollen, look as if about to start out of the orbits; the headache and pains in the limbs disappear, and the sufferer appears to be actually worn out from exhaustion. There is a constant disposition to toss the arms above the head, and he sinks down in the bed; and in three or four hours before dissolution the characteristic "black vomit" takes place, which is often expelled in almost incredible quantities, (and with great force, the bulkheads, in one case, of the cabin having been spattered all round with it; I have myself been covered from head to foot by it whilst standing by the side of the berth); it is also passed by stool if the patient remain conscious; if not, it is passed involuntarily. Hæmorrhage from the nose and gums also comes on, as also in large quantities from the bowels; and if a blister has been applied during the course of the attack, the raw surface pours out blood very plentifully. The powers of life every moment become weaker, and at length, after some short convulsions, the poor sufferer ceases to exist. As to the *post-mortem* appearances in this frightful epidemic, I cannot say anything from actual observation, as I never had an opportunity afforded me of making one, as on board ship, but more particularly in "passenger-ships," the thing would be altogether impracticable.

The treatment that I adopted in this fearful visitation may, at first sight, appear to those not accustomed to witness disease in a tropical climate, rather strange; however, I wish to be understood as not intending to lay down any rule of practice which ought to be pursued in all cases; I merely give the results of my experience and treatment; and, from the number of cases I have witnessed, both afloat and ashore, I think I am entitled to have an opinion on the subject. I have met some practitioners in the West Indies who have disagreed with me in my views; however, their disagreement I look upon as nothing, as the results of my practice prove, beyond a shadow of doubt, which was the best.

My treatment may be briefly summed up in the following:—

Directly I was called to see a man labouring under the symptoms already enumerated,—viz., rigors, intense pain in the head, back, and limbs, with a pulse ranging between 100 and 130 in a minute, with a peculiarly injected eye, etc.,—I immediately ordered his feet to be placed in hot water—sometimes, according to the violence of the symptoms, into a mustard bath—for twenty minutes, (a regular warm bath would have been better, had I had the means of giving one,) and gave calomel and quinine, aa. gr. xx., with five grains of James's powder; then had him wrapped in blankets until I could provoke a moisture on the skin generally. If the symptoms had not abated in three hours, I repeated the calomel, and quinine, and bath, following up the dose, two hours after, with ol. ricini ʒiij. If the symptoms still remained undiminished, I repeated the calomel and quinine in three hours after; and I never, in the great majority of my cases, found it necessary to repeat the large doses after the third, the symptoms invariably having yielded, the pulse falling gradually to 80, a gentle moisture, and in some cases a profuse perspiration, appearing over the entire surface of the body, the headache diminished, the bowels well acted upon, and a good flow of urine taking place. I found it always necessary, however, to continue the quinine for some time, though in diminished doses. From the first, I never allowed my patients to die of starvation, giving them frequently small quantities of strong chicken soup, and during the dawn of convalescence a liberal allowance of wine. For the suppression of urine, which always occurs, and which is the least manageable symptom, I have given acetate of potass in broth, as also sp. æth. nitros. I have also applied mustard cataplasms over the region of the kidneys, but, sad to say, with very little effect, as not a drop of urine was secreted. I have never, in a single instance, seen quinism produced, though I have frequently given so much as 130 grains, with the same amount of calomel, in 36 hours, but they produced no unpleasant effect; salivation only took place in two cases which proved favourable, though the bowels were not much acted upon, evidently showing the virulence of the disease to require such apparently poisonous remedies to check it. Hæmorrhage took place in almost every instance from some part or other, chiefly from the nose and gums; though in one case the patient lost a considerable quantity by the bowels; notwithstanding, he afterwards recovered. Great pain is also complained of in the epigastric region: this I always found to yield to mustard plasters. The number of cases of true, genuine yellow fever which occurred on board the Great Western, amounted to twenty. However, the cases of fever on board during the prevalence of the epidemic amounted to forty-six in number, all of which, presenting, as they did, doubtful symptoms, I treated alike, as I could not be certain of the moment the type might change. Of this number, only four cases proved fatal under treatment; a fifth, a little boy, in the momentary absence of his attendant, went overboard through the port, and was not seen afterwards. Notwithstanding that I have administered such large doses of quinine, yet it never was attended with a single unpleasant result, either as to deafness, dimness of vision, or otherwise, plainly exhibiting the malignancy of the disease. I have not the slightest doubt on my mind, that, had I treated all those cases differently, I should, in all human probability, have had a much greater amount of mortality. I have been spoken to by some medical men, who said to me, "Surely you did not give quinine at the first onset of the disease, when the fever was so high, etc. You ought to have given calomel, and withheld the quinine till a remission took place." To which I replied, "I always give quinine at the first, directly I see the patient, and the greater the amount of fever the larger I make the dose, as, according to my views, from actual observation, I have found it to act as a perfect sedative, the pulse falling under its administration, and a perspiration coming out over the body." I have been told by some, "I have no faith in calomel, as I have tried it, and found it invariably fail." I asked, "In what doses do you administer it?" and was told, in five to ten grain doses, and with quinine in the period of remission. Now, from what I have seen of yellow fever, I never saw a case in which if I had withheld treatment till a remission took place, I would not have waited till death, the "long remission," took place. For the irritability of stomach I gave a draught—Sp. æth. reeti ʒij., sp. ammon. aromat. ʒj., aquæ, ʒss., M.; and with great success, the stomach remaining tranquil for an hour or so afterwards, thereby giving me a chance to give the medicine, and of having it retained.

As to the contagious properties of yellow fever, I must say, from what I have seen and believe, that it is not personally so; that it is locally I will allow; but I must say that, from what have been the results of my strict observation on the subject, I have not the least hesitation in affirming, as my opinion, that it is not personally so. Furthermore, I feel convinced that many deaths were put down as having resulted from yellow fever which were not yellow fever at all, but which were mistaken for it, merely because the epidemic was raging at the time. I have known, also, instances myself where I feel convinced the disease was caused through sheer fright, and in which the individuals have given themselves up for lost from the moment they were seized. That the disease could exist, much less originate, in a cold climate, I feel convinced to be utterly impossible, as I believe it requires an exalted temperature for its existence; and, also, I have myself seen the very favourable change caused by the thermometer falling even four or five degrees as we got into a milder degree of heat. However, this is a subject which requires a much greater investigation before we can arrive at a proper conclusion on the matter.

I might add a great deal more on the subject, but, having written what I consider the most important particulars of this fearful scourge, with the treatment that, under the blessing of the "Great Physician," I found so successful, I will conclude by saying, that I sincerely trust that the foregoing observations may act in some measure as a guide to those whose fate may lead them to the West, and who may be obliged, (notwithstanding all their reading,) as I was, to learn practically for themselves, as books and treatises, though certainly useful, and by no means to be disregarded, fall short of explaining what ought (in each individual case) to be their proper mode of proceeding at the bed-side.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Dr. Copland, President, in the Chair.

The President, on assuming the chair, addressed his thanks to the Fellows for the honour they had conferred upon him, and assured them that he should endeavour to discharge his duties with urbanity, and he hoped also in a manner conducive to the welfare and prosperity of the Society.

Mr. Hodgson proposed that the thanks of the Society should be given to the retiring Secretary, Mr. De Morgan, for the efficient manner in which he had discharged the duties of his post, and for his zealous endeavours to advance the interests of the Society during the period of his secretaryship.

Mr. Arnott seconded the proposition; which was put in the usual way from the chair, and carried with acclamation.

A paper was then read, entitled

RESEARCHES ON THE PATHOLOGY OF OBSTRUCTION OF THE VEINS, AND THE NATURE AND PROXIMATE CAUSE OF PHLEGMASIA DOLENS.

By F. W. MACKENZIE, M.D. Lond.

The following is an abstract:—The author observed, that the facts brought forward by Dr. Davis (Vol. XII. of the "Transactions"), with reference to the important relations subsisting between certain lesions of the crural veins and the general phenomena of phlegmasia dolens, had been generally recognised, and fully substantiated by the investigations of various pathologists; but that the conclusions drawn from them had not been accepted with the same unanimity, for, while many concurred with Dr. Davis, that the affection of the vein was the proximate cause of the disease, others believed it to be of secondary importance, and estimated it rather as an effect. It was the design of the present communication to inquire more particularly into the correctness of these respective opinions. After noticing the general characteristics of the disease, as defined by Callisen and Hall, he stated, that the local manifestations were characterised by two principal conditions—first, by a persistent and peculiar swelling of the affected limb, with a degree of tension, heat, firmness, and elasticity, not common to ordinary œdema; secondly, by an impairment of the nervous and muscular functions of the limb, indicated by pain, tenderness, and loss of motor power. The author then details a series of experiments to determine how far these conditions could be produced in parts where the veins had been artificially inflamed. The experiments consisted of three series:—1. The application of ligatures to the iliac veins, followed by observation of the results at certain definite periods after the operation. 2. Chemical and mechanical irritation of the lining membrane of the iliac veins. 3. The effects of sustained compression of the femoral veins by metal plates. Then followed a full description of the experiments, which were made on dogs; and the state of the limb, the constitutional symptoms, and the dissection after the animal had been killed, were in each instance carefully recorded. The principal facts elicited by the first series of experiments—viz., ligature of the iliac veins—were, that the constitutional disturbance was very transient, and referable rather to the extensive wound necessary to expose the vein, than to the operation of the ligature. The morbid effects of the ligature were, slight thickening of the coats of the vein, and a loose, black, non-adherent coagulum, at the immediate spot of the ligature. In forty-eight hours, there was increased opacity, thickening, and vascularity at the seat of ligature, and ulceration of the coats of the vein. In seventy-two hours, the coats were nearly ulcerated through, and the vascularity and thickening, both above and below the ligature, became greater. In ninety-six hours, the vein was completely divided by the ligature, and the parts above and below highly vascular, infiltrated, and swollen. A coagulum extended downwards, and was slightly adherent at the point of division. On removing the coagulum, a shreddy, patchy appearance was left, occasioned by its partial adhesion to the lining membrane. The author thought that these consequences of crural phlebitis, induced by ligature, differed very widely from those observed in phlegmasia dolens. The constitutional symptoms were more transient, and the local symptoms trifling as compared with this latter disease. But while the morbid effects of ligature of the vein did not altogether accord with the phenomena of phlegmasia dolens, they, on the other hand, were identical with such as have been observed from time immemorial in connexion with wounds, injuries, and operations upon these vessels. The author next proceeded to detail the results of irritation of the iliac veins by chemical and mechanical agents. He employed strong solutions of nitrate of silver, and solid pieces of bougie fastened within the vein. Inflammation, localised to the seat of the experiment, was in each case produced; but in this series neither the local nor constitutional symptoms were those characteristic of phlegmasia dolens; and if the foregoing experiments possess any value, they indicate that this disorder was not producible by inflammation or obstruction of veins, however rapidly induced. In all these experiments there was an absence of constitutional fever; the swelling of the limb was neither elastic nor abiding, but simply œdematous, and there was no impairment either of its sensory or motor functions. With such facts demonstrated, the author was of opinion that the affection of the veins was not the sole or even essential lesion, or the proximate cause of the complaint. The problem then to be solved was, what were the specific causes or conditions which can simultaneously affect the sensory, the motor, the secretory, and the vascular organs of the affected extremity, so as to give rise to the concurrent phenomena by which phlegmasia dolens is characterised. Were they local or constitutional? and in what did they respectively consist? The author then directed attention to the pathology of venous obstruction, and pointed out the contradictory opinions expressed in regard to it. He showed that phlebitis might exist in a variety of ways, and yet not induce phlegmasia dolens, although many writers had somewhat vaguely asserted the former to be a necessary precedent condition. In relation to this branch of the inquiry, the subject of irritation and injury of the external coat of veins, as connected with the causation of venous obstruction, next engaged attention. Experiments were detailed, in each of which the external coat was either mechanically injured, or irritated by the free application of some corrosive or chemical irritant. Others followed, in which the internal coat was similarly treated, to illustrate the causation of venous obstruction. In these last experiments, it was attempted to ascertain how far could be reconciled the conflicting opinions on the one hand, that phlebitis was primarily induced, and that effusion of lymph, and coagulation of the contained blood, was the subsequent cause of obstruction; or, on the other, that the blood was first coagulated by the irritant, and that phlebitis and obstruction followed. In these experiments the vein was first emptied, and a space included between two ligatures. Chemical irritants were applied to the lining membrane, and the blood subsequently permitted to flow through. The agents employed were, solutions of the bichloride of mercury, sulphate of zinc, and nitrate of silver. Veins thus treated contained only some traces of fibrinous-looking matter, having no analogy to coagulable lymph, and evidently deposited upon rather than exuded from the vein. The author thought that veins were not ordinarily obstructed by the effusion of such lymph, although it was not his intention to affirm that this never took place. He next offered some observations on the obstruction of veins from spontaneous coagulation of the blood consequent on extreme vital exhaustion, as well as upon its coagulation from the direct action of morbid secretions. Upon the latter branch of the subject, reference was made to the papers on the Pathology of Phlebitis, by Mr. Henry Lee, and to the opinion of that gentleman, that the admixture of pus and other morbid animal secretions with the blood caused coagulation whenever these fluids were received into the veins; and that from the coagulum so formed a pellicle was separated, which became vascular, and finally firmly united to the circumference of the containing vessel, so as to become inseparable from it; but, upon reference to direct experiment, the author was unable to verify these conclusions. The foregoing investigation led the author to the following deductions:—1. That inflammation of neither the iliac nor femoral veins would account for or give rise to phlegmasia dolens. 2. That the extensive obstruction of the veins met with in this disease is not producible by merely local causes, such as injury or inflammation of these vessels. 3. That irritation of the lining membrane of veins, independently of such local injury or inflammation, will alone give rise to obstruction of these vessels, to an extent commensurate with that of the irritation which may have been excited within them. 4. That extensive irritation of the lining membrane of veins, giving rise to obstruction, and all the phenomena of phlebitis, may be excited by the presence of various unhealthy matters in the blood, circulating within this fluid, and determined upon particular portions of the venous system. 5. That the origin of the disease is, therefore, to be sought for rather in a vitiation of the circulating fluid than in any local injury, inflammation, or disease of the veins. The author then referred to the causes capable of giving rise to an unhealthy condition of the blood; these were either local or constitutional; unhealthy secretions, suppuration, and discharges, belonged to those favourably circumstanced for re-absorption; and he proceeded to consider how far these deductions were supported by the clinical history of phlegmasia dolens. To determine this, he had carefully analysed and arranged, in a tabular form, the principal facts of 100 cases, reported in special treatises, or in the periodical journals. These tables contained the particulars of sixty cases, which occurred in connexion with child-bearing, and of forty arising from other causes. The former class contained twenty deaths and forty recoveries, the latter, twenty deaths and twenty recoveries. The inference to be drawn from these cases was, that the disease was essentially a blood disease; that it had the same general laws, similar tendencies, and required the same principles of treatment as other blood diseases; and that the affection of the veins, like that of the nerves, the lymphatics, and the areolar tissue of the limb, was essentially secondary to, and dependent upon, an antecedent vitiation of the circulating tissue. The results of clinical experience thus harmonised with those of physiological research, and the author hoped that this investigation might not be altogether unimportant in its application to practice.

Mr. Henry Lee observed, that, as the author had alluded to

some experiments instituted by himself a few years ago, and had stated that the results of his own observations did not quite accord with those which he (Mr. Henry Lee) had put forward, he might perhaps be pardoned if he offered a few remarks relative to the subject thus brought forward. The author had stated, that the pathological conditions observed in phlegmasia dolens could not depend on the obstruction of a large vein by the presence of a coagulum, because no such conditions resulted if the vein was simply tied. But it appeared to him that the analogy between a tied vein and the obstruction met with in phlegmasia dolens did not hold good, for in phlegmasia dolens several venous trunks were choked by coagulum, whereas, by the application of a ligature, only one was obstructed. The author had declared that deligation of a vein was not capable of occasioning a rapid coagulation of the blood moving within it, and that he had observed, on several occasions, after a vein had been tied, that the blood remained for some time fluid on each side of the ligature. This statement he (Dr. Henry Lee) could confirm, for, in experimenting on asses, he had noticed that when the jugular vein had been plugged by a coagulum the tissues on that side of the neck fell into a state of general œdema, very similar to that observed in phlegmasia dolens. No such appearances, however, followed the application of a ligature to the jugular vein. Inflammation of veins, indeed, followed with great rapidity after stagnation, but was not so readily set up by deligation. With reference to the influence of pus when injected into the veins, the results of the author's extensive experiments did not differ so widely from those noted by himself as might at first sight be supposed. Since the performance of his first experiments he had instituted others to elucidate this point, and had found that the changes induced in the blood by the injection of pus into the veins varied according to the quality and source of that inflammatory product. Thus pus from an acute abscess would certainly produce immediate coagulation of the blood, but pus from a chronic abscess was not followed by the same effects, but only by a separation of the blood into its component parts—viz., liquor sanguinis and blood-corpuscles, while decomposing putrid pus set up neither of these changes, but merely converted the blood into a black, grumous, semi-fluid compound. It had been stated by the author, that a simply irritated condition of the lining membrane of a vein, unaccompanied by any alteration of structure, such as abrasion or impairment of smoothness, was sufficient to establish coagulation of the blood flowing in its channel, and to account for many of the pathological conditions observed in phlegmasia dolens. But the experiments which he (Mr. Henry Lee) had performed led him to believe that lymph was not effused from the lining membrane of a vein, unless that tunic had undergone some previous impairment, and he thought it quite as likely that the morbid material which ultimately coagulated the blood did so by first altering the structure of the lining membrane, and that this tunic re-acted on the blood, as that the plugging resulted from an alteration in the quality of the blood, which irritated without impairing the internal tunic.

Mr. Arnott considered the author's paper entitled to great praise, both for the laborious industry with which it had been worked up, and the patient analysis to which the materials composing it had been subjected; and inasmuch as many of the important parts of the paper, especially those bearing on the pathological question, had been omitted in the reading of the paper, he rose with some hesitation to express the doubts he entertained respecting some of the author's conclusions—conclusions which, for the reasons he had mentioned, might not have been so clearly established as the author had wished. The experiments adduced were, in his opinion, insufficient to support the doctrines based upon them. Physical injuries of various kinds had been inflicted on the veins of the lower animals, and because their results did not accord with the phenomena of phlegmasia dolens, the author considered the disease in question resulted from a morbid condition of the blood, which operated by irritating the lining membrane of the veins. Now, he thought this conclusion not sufficiently established by the author's experiments. He should hesitate to admit that the veins were only liable to one species of inflammation, because mechanical injuries inflicted on them, in the lower animals, had hitherto produced only one kind. We should not argue thus in other pathological questions. The skin was liable to various diseases and various inflammations; but because one was observed more frequently than the rest, we should not be justified in denying the possibility of the others. The various forms of counter-irritation, such as moxas, setons, blisters, etc., were undoubtedly generally followed by a purely local, circumscribed inflammation; but no one would therefore deny that a spreading inflammation could follow the employment of these agents. A large number of wounds might be inflicted, and all be healed, without the supervention of erysipelas; but the possibility of erysipelas, under circumstances of injury, would not on that account be questioned. In the same way he conceived, that though numerous injuries might be inflicted on veins without setting up a spreading inflammation of their tunics, yet that such an inflammation might on certain occasions follow their application; and spreading inflammation of veins might, he thought, be induced by the application of chemical irritants to their tunics, although such a consequence did not generally ensue. The author had entered minutely into the question concerning the first morbid changes which terminated in phlegmasia dolens. Did these changes commence in the blood or in the coats of the veins? The author referred them to the blood, and believed in the existence of a general contamination. He (Mr. Arnott) thought that the coats of the veins were most frequently the first to suffer, and he felt indisposed to admit the general contamination, for the absence of secondary deposits from the morbid anatomy of phlegmasia dolens furnished the strongest evidence for its being a purely local affection. The clots by which the veins plugged might be formed in consequence of inflammation of the venous tunics, or from contamination of the blood; either condition was, he thought, adequate for their production.

Mr. Hodgson did not consider phlegmasia dolens to be a blood disease, according to the common acceptation in which that term is used. He considered it to be owing to an obstruction in the pelvic, iliac, and femoral veins, arising from the passage into those veins of putrid and irritating matters derived from the uterus after parturition. Other diseases were capable of producing the same condition; and he had seen it caused, as he believed, in a similar manner from the absorption of putrid matter from ovarian cysts after tapping in cases of carcinoma of the uterus and rectum, extensive chronic abscesses about the hip and perinæum and in the upper part of the thigh, and a similar condition from the like cause in various other parts of the body. The irritating matter, having entered the large veins, excites inflammation in them, and an effusion of plastic lymph upon their internal surface; to this the fibrine of the circulating blood becomes attached, and a plug is formed, which fills up the vessel. If the blood throughout the body were contaminated, if phlegmasia dolens, as it is called, were a blood disease, why were these particular veins the sole seat of the affection, as in almost all instances they are? Why did not the morbid condition of the blood affect other and more remote parts? Moreover, the symptoms which attended this condition were, except in extreme cases, those of a local, and not of a general or systemic affection. Phlegmasia dolens, in most instances, was not a disease dangerous to life, and patients generally recovered from it. For these reasons, he was unable to admit that this disease depended upon a general disorder of the blood. He regarded it as a local affection, arising from the reception of irritating matters into the veins, producing phlebitis and consequent obstruction of their cavities, with its usual consequences. That the coats of the veins were, in most instances, the seat of active inflammation was, he thought, proved, not only by the effusion of plastic lymph intimately adherent to the lining membrane, but also by effusions of pus, which are frequently found intermixed with the plugs by which the veins are obstructed.

The President had seen several cases of phlegmasia dolens, and thought the pathological phenomena presented by them bore no analogy to the results of the author's experiments. He did not indeed believe that phlegmasia dolens could be imitated by experiment on the lower animals. It was, as Mr. Hodgson remarked, a local affection, and depended on several causes. An assemblage of morbid conditions combined in most instances to constitute it, each of which might be singly produced in other affections; thus the white swelling or general œdema depended principally on obstruction to the lymphatics, and might follow after cancer of the groin or within the pelvis, and after the obstruction of these vessels the veins might become secondarily affected, so that a condition similar to phlegmasia dolens would then be set up. He had seen an instance in which the disease originated in inflammation of the nerves of the thigh; and although there was no doubt that the blood was contaminated locally, yet there were no sure grounds for believing that such contamination had pervaded the whole circulation.

Dr. Locock remarked that the interval which elapsed between parturition and the commencement of phlegmasia dolens furnished an argument in favour of its being a local disease. There were very few cases in which it showed itself before a fortnight after parturition, and a week was the shortest interval with which he was acquainted. He was inclined to believe that there was an hereditary predisposition to phlegmasia dolens in certain families. The following instance seemed to prove it:—A nobleman had four daughters; they all married young, and all had phlegmasia dolens after their first pregnancy, and the nobleman himself had suffered from the same complaint.

Dr. Mackenzie said: In proceeding to reply to some of the observations which had been made in the course of this discussion, he would wish to state at the outset, that it did not appear to him that any fact or circumstance had been mentioned which was not strictly reconcilable with the principles affirmed in his paper, and that, should such appear to be the case, it was due to the fact, that a portion only of it had been heard, that the whole of the pathological part of the inquiry had been omitted, and that that relating to the experimental investigation into the nature, origin, and causes of obstruction of veins had been only partially and imperfectly brought before the Society. Nor did he complain of those omissions; for, from the length of the paper, and the number of details which it was felt necessary to adduce in support of the several propositions affirmed, he felt that its entire reading would have been impossible within the period of an ordinary meeting of the Society. In undertaking this inquiry, it was his especial object to elucidate the pathology of phlegmasia dolens, and, in doing so, he could not overlook the important relations which subsisted between it and certain lesions of the crural veins, nor the theory which regards such lesions as its proximate cause. Accordingly, his first investigations were directed to a determination of the nature of those relations, and to ascertain how far inflammation and obstruction of the crural veins were capable of giving rise to the phenomena of the disease, and the results of such investigation clearly show that the disease was not thereby producible. Believing, however, that an inflamed and obstructed condition of the crural veins, although thus shown not to be the proximate cause of the disease, was yet an important pathological constituent of it, he (Dr. Mackenzie) proceeded in the next place to investigate how such lesions could be produced concurrently with the other phenomena of the disease; and this necessitated a general inquiry into the nature and pathology of venous obstruction, the general results of which may be thus stated. That while inflammation of the veins, however induced, failed to give rise to anything like those extensive obstructions which are met with in phlegmasia dolens, that they may be readily produced by injecting irritating fluids into the blood, or, in other words, by vitiating this fluid, and this in the absence of any injury or inflammation of the veins; and it should be added, that this was as clearly demonstrated experimentally as was the fact, that such changes are not producible by exciting inflammation of the venous tissues. He was thus led to conclude that phlegmasia dolens, as well as the extreme obstruction of the veins met with in the disease, depend rather upon an abnormal condition of the blood than upon inflammation of the veins, or any other organ or structure of the affected extremity; and this brought him to the observations of Mr. Henry Lee, as to the mode in which a vitiated condition of the blood gave rise to the phenomena of obstructive phlebitis. Now, that gentleman, as he understood, appeared to regard all the actions which ultimately tend to its production as originating in the blood, and being in the first place limited to this fluid; that all morbid agents received into the veins immediately produce coagulation of the blood, irrespectively of any action of these vessels; that from the coagulum so formed lymph is exuded and organised, in virtue of certain vital properties possessed by the blood; and that it is only in the course of the organisation of such lymph that the venous coats become engorged, and take on increased or inflammatory action. Now, with reference to these opinions, he (Dr. Mackenzie) would first observe, that there was a source of error in the experiments upon which they were founded, which had not been sufficiently attended to—viz., that in all cases in which irritating fluids were thrown into the veins, their action must be simultaneous both upon the blood and their lining membrane; and that, therefore, any resulting phenomena cannot be referred exclusively to either. But, further, he would oppose to the accuracy of these views the two following series of facts recorded in his paper. First, that if the lining membrane of a vein is irritated, the blood having been previously excluded and subsequently re-admitted, it will be found, after a time, to have coagulated throughout the entire length of the vein which had been irritated; and, secondly, that if an irritating injection be thrown into a vein, and the state of the blood and the vein shortly afterwards examined, it will be found, not that the entire column of blood in the vein has been coagulated, but that portion only which had been in contact with its lining membrane: facts which clearly showed, that this membrane, when irritated or excited, had the power of producing coagulation of the blood, and that this took place in virtue of some impression made upon it by the lining membrane of the vein when thus irritated or excited. Mr. Arnott appeared to consider the extensive obstructions of the veins met with in phlegmasia dolens as rather dependent upon some specific form of venous inflammation, than upon any primary morbid condition of the blood. He suggested, that, notwithstanding the ordinary causes of inflammation applied to a vein failed to excite more than trivial consequences, he could not doubt the occasional occurrence of some more specific form of inflammation from the operation of the same causes; and he observed that, because wounds and other injuries of the skin may fail in fifty cases to excite more than healthy inflammation of that organ, that he will not be persuaded that they may not, in the fifty first, excite an erysipelatous or some other unhealthy inflammation. Now, with reference to this observation, he (Mr. Mackenzie) would wish to inquire whether it does not, in reality, concede the whole question; for upon what can a specific inflammation depend but upon some specific or peculiar condition of the blood? Again, with regard to the veins, suppose that, in a million cases, the ordinary causes of inflammation applied to them failed to excite extensive obstruction of these vessels, whereas in the millionth and one such resulted, should we be justified in regarding the one case as the rule, and the million cases as the exception? Was it not rather probable that the peculiarity in the exceptional case was rather dependent upon some peculiar condition of the blood than upon any disposition on the part of the vein to develope such specific inflammation, in the absence of such case? This view, he submitted, was at least rendered probable, when it was considered how latent and insidious are some of the causes which tend to impair the normal condition of the blood. With regard to the observations of Mr. Hodgson, it did not appear to him (Dr. Mackenzie) that the facts he had mentioned were at all at variance with the principles affirmed in the paper. The blood, he need scarcely observe, was liable to become diseased or contaminated in a variety of ways, and of the causes productive of such results, some are of a local and some of a general character. Now, the circumstances Mr. Hodgson had referred to—viz., cancerous diseases—constitute some of the more important local causes, for they tend sooner or later to give rise to suppurative or unhealthy discharges; and these, on being absorbed into the system, tend not only to vitiate the blood, but to produce irritation or inflammation of the vessels through which they are transmitted, whether these happen to be absorbents or veins. As to the particular veins which are liable to become inflamed from a general vitiation of the blood, he (Dr. Mackenzie) believed that in the majority of cases we may recognise the operation of certain determining causes. This question, moreover, he had fully considered in the pathological part of the inquiry, and he regretted that the time of the Society would not now enable him to enter upon it. The facts stated by Dr. Locock were not only of extreme interest in themselves, but highly important to the present inquiry; indeed, in the whole course of his (Dr. Mackenzie's) experience or reading, he had never met with such strong testimony to the correctness of the opinion, that phlegmasia dolens was a constitutional disease; for hereditary diseases are, in the strictest sense of the word, blood diseases; and if, as stated by Dr. Locock, phlegmasia dolens did really occur as an hereditary affection, we may deduce a strong argument from the fact in favour of its being a blood disease. He (Dr. Mackenzie) did not know that any other points had been raised in this discussion which required to be noticed, and was unwilling to occupy the attention of the Society at greater length. He extremely regretted that the number of details which it was necessary to introduce into his paper, in order to substantiate the several propositions affirmed in it, were such as to have prevented its being brought fairly before the Society. When, however, hereafter, it should be published entire, and the facts and inferences contained in it fairly weighed and considered, he ventured to believe, with confidence, that the judgment of the Profession would be given in favour of the principles he had affirmed, and the conclusions he had arrived at.

MEDICAL SOCIETY OF LONDON.

Dr. Forbes Winslow, President, in the Chair.

Dr. Webster proposed, that the thanks of the Society should be given to Mr. Bishop, the late President, for the able and zealous manner in which he had discharged the duties of his office during the past year.

Mr. Chippendale seconded the motion, which was carried unanimously.

The thanks of the Society were subsequently accorded to the various gentlemen who had filled its various offices during the past year.

The President read an inaugural address, and warmly thanked the Society for the honourable distinction they had conferred upon him in electing him to a chair, which, since its establishment, had been filled by some of the most eminent men who had

adorned the profession of medicine by their talents, or improved it by their industry.

Mr. Dendy then read a paper on

PSYCHOTHERAPEIA.

We quote the commencing passages as the psychological basis of the essay:—"When Plato wrote these words, '*Nec totum corpus* (*curabis*) *sine anima*,' he recorded a truth which few probably will deny, but the principle of which, in the practice of medicine, has been constantly blinked or set aside. This error has been committed, not only from deficient appreciation of the influence of mind, and especially that one of its faculties which we term volition, but also from a notion that the psychologist speaks and writes of intellect as an abstraction, and not as that intimate blending of mind and matter which has laid the basis of modern psychology, and especially of the theory of insanity. What the blood is to a secreting gland, the spirit is to the brain. The gland forms its especial product from the blood; the brain acting with spirit produces mind." While dwelling on the pathological influence of mind on tissue, the author thus traced the course of a simple thought:—"The sensations it often induces are those which, if in higher degree, or more permanent, would become symptoms or indications of disorder. What is a chill (as of fear) but a rigor, like that of ague—its cause cardiac congestion? What a throb, but that exalted innervation, which, if protracted, might produce cardiac hypertrophy? What the flush, but that hyperæmic condition which might terminate in inflammation?" The physiological, prophylactic, and therapeutical influence of the mens sana was next referred to, and especially the principle of psychical antagonism opposing, for instance, the effects of anxiety, fear, melancholy, remorse, etc., by devotion, hope, cheerfulness, self-control, etc. The principle of mesmerism, and its prototypes, was entirely psychical, and should not be blinked by medical philosophers, who thus apathetically permit the mercenary impostor to gain the ascendant. Even the organic functions dependent on special and ganglionic influence may be mentally excited. Even peristaltic action, the salivary and spermatic secretions, may be induced by peculiar studies and thoughts. The depressing effects of grief and fear may be influential in checking hæmorrhage, or in removing acute neuralgia, as inflammatory toothache, etc., and the effect of shame, by derivation, in relieving the condition of internal hyperæmia, etc. Mr. Dendy referred to the extraordinary effects of terror in the case of the previously speechless son of Crœsus, who, on the uplifting of an assassin's arm, exclaimed, "Slave! kill not Crœsus," and to others. Hope is not only felt in the heart, but is synchronously the cause of a vigorous circulation. The pulse, respiration, and powers of a soldier during an inglorious retreat, were contrasted with those of the victorious pursuers. In the hospital also of a defeated army the healing process is far more slow and imperfect than in that of the conqueror. The very interesting accounts of scorbutics in Lord Anson's voyage, and the pious fraud of the Prince of Orange at the siege of Breda, were apt illustrations of the effect of confidence and hope. To prove the intense effect of joy, Mr. Dendy related the case of a young lady, who had been long afflicted with complete hysterical aphonia, whose vocal organs were brought for a moment into play by a promise of one of the costly jewels in the Exhibition, if she would pronounce its name. She gained the prize. Mr. Dendy next alluded to that prevalent error of human nature, automania, or wrong notions of self. Several interesting cases were adduced from the author's practice, from De Boismont, etc., as illustrations of the potent effect of diversion or abeyance of the mind as a remedy for maladies which would perfectly resist the materia medica. If the current of morbid innervation be intercepted, the mind would forget the malady, which, according to the theory of Berkeley, would then cease to exist. This is a subject really of practical importance. In allusion to other cases of *maladie imaginaire*, one melancholy instance was mentioned of a medical gentleman under the author's care, in whom, in the intervals of extensive practice, the automania that syphilis was corroding his osseous system, at length terminated in suicide. The notion was perfectly groundless, and γνωθι σεαυτον would have saved him. Congested lung, when instinct fails in its duty, must be relieved by voluntary effort: we must not forget to breathe. The consequent collapse of the air-cells will not only increase congestion, but even favour the development of tubercle. By the due expansion of cells, the granule or germ in the pulmonary parenchyma may be subdued and kept down. The cases of Bateman and John Hunter might have formed fatal illustrations, had not the one been almost incessantly roused from slumber, and the other set himself to the voluntary inflation of his lungs. On this principle, sleep may be sometimes perilous in pulmonary disorder, as it withdraws volition. Probably this may have been the *causa mortis* in old asthmatic persons who, having long endured a sort of chronic atalectasis, have been discovered dead in their beds. The paper concluded thus:— "The basis of my remarks is this proposition,—A mere thought instantly induces a physical change, it may be, even in the crasis of the blood. By the directing or averting such thought to or from disordered structure or function, we may constantly avail ourselves of a valuable auxiliary in the practice of our intricate science."

Dr. Crisp agreed with many of Mr. Dendy's views, but he thought that little practical knowledge was afforded by his paper. There was no proof that blood was oxidised or de-oxidised by mental influence, and many cases of patulous foramen ovale, in which the mental functions were properly performed, proved that the brain could discharge its duties, although the blood was imperfectly oxidised. He doubted the instances of sudden change in the colour of the hair, consequent on a powerful mental emotion, the evidence by which such instances were supported being, in his opinion, questionable.

Mr. Chippendale differed from Mr. Dendy in believing that oxidation of the blood could be accomplished by the agency of a thought, and considered that there was no proof that the blood was affected in its characters by the mental processes. The sympathetic system, indeed, exercised a control over the blood-vessels, but not over the blood. He also believed that no well-authenticated instance of a sudden change in the colour from grief or other mental emotions was on record.

Dr. Druitt must re-assert the great influence possessed by the emotions of the mind over the nutrition of the body. Whatever doubts might prevail about a sudden transition in the colour of the whole hair from grief, there could be no doubt about the hair becoming grey from prolonged mental anxiety, and he felt certain that emotions of the mind frequently brought on attacks of disease in delicate persons. He was acquainted with cases in which unhealthy discharges and other signs of uterine disease were brought on or greatly aggravated by depressing emotions. It was a very difficult question to determine by what means the mental processes might be rendered available for the cure of disease, and equally difficult to say what medicinal agents were competent to relieve mental affections.

Dr. Crisp did not at all doubt the influence possessed by prolonged mental emotion in disordering the processes of nutrition, but only transitions of the colour of the hair, which the author had alluded to.

Mr. Hinton observed, that one instance at least appeared sufficiently authentic. Montesquieu, in his private letters, stated, that his hair changed to grey in a single night, after the receipt of distressing news respecting his son. He himself was acquainted with the instance of a boy in whom the hair underwent a sudden and complete change of colour without obvious cause.

Mr. Pilcher was anxious to know what proofs could be advanced of change in the characters of blood from the influence of thought. He wished also to hear some explanation from Mr. Dendy of the meaning attached by him to the word "spirit," as employed in his paper. He (Mr. Pilcher) considered that the connexion of the mind with the brain was, in a great measure, material,—in fact, that the mental processes bore the same relation to the brain as the bile did to the liver, or the urinary secretion to the kidneys.

Dr. Snow thought that some explanation of the influence exerted by the mind over the functions performed in the body might be found in the dependence and relationship which subsisted between all the great organs. He then alluded to the great influence exercised by strong efforts of volition and powerful emotions in deranging the functions of the body, and observed, that examples of the latter might be met with in the lower animals. He could easily believe that the hair might change quite suddenly from one colour to another, because he considered that individual hairs did not become grey by slow and progressive alteration, but by a rapid and almost sudden transition.

After some remarks from Dr. Camps, Dr. Daniell, and Dr. Radcliffe,

The President called on Mr. Dendy to reply.

Mr. Dendy thanked the Fellows sincerely for the kindness with which they had received his paper, and said he had very little to say in reply, because the most of the doctrines advanced in his paper seemed undisputed. He believed that the influence of the mind on the heart was immediate in its effects. He did not wish to trespass on theology or advert to topics which were foreign to the intentions of a medical discussion, but he believed that the spirit became mind when it was blended with the brain, and the

mental operations were material in so far as they depended for their proper performance on the integrity of a material organism, to which they appeared to him to bear the same relation as the secretion of bile did to the liver, or the urinary secretion to the kidneys.

ENGORGEMENT OF THE MAMMA, FOLLOWED BY FORMATION OF MILK.

Dr. Cormack related to the Society two cases in which engorgement of the mamma followed, in one instance, by formation of milk had been produced by the action of stimulant applications, viz., in one of the cases, by a bran poultice; and in the other, by a sinapism, which, having been placed on the upper part of the chest, accidentally slipped over the breast during the night. Dr. Cormack observed, that, some years ago, Dr. M'William and Mr. Patterson laid before the Profession some interesting particulars respecting the action of the leaves of the castor-oil plant and of the physic-nut in producing engorgement of the breast and lactation in young unmarried females. These gentlemen had observed, that the native women inhabiting the islands of the Indian Archipelago applied the leaves of these plants to their breasts for the purpose of producing lactation, and succeeded in obtaining the desired result. Since the publication of these singular observations, it had been generally imagined that the leaves in question exerted a specific action on the mammæ by virtue of some peculiar constituent; but, from some facts which had fallen under his notice, and more especially from the two cases he had mentioned, it appeared to him improbable that the properties ascribed to these plants were the result of any special principle resident in their leaves. They belonged, as was well known, to the order *Euphorbiaceæ*, whose most characteristic quality was acridity. Now, this quality alone was, in his opinion, sufficient to account for the congestion of the mammæ and the subsequent lactation; and he believed that all acrid substances possessed a similar power in a greater or less degree,—a view which the action of the sinapism and bran poultice in the cases he had brought forward confirmed. A knowledge of the consequences thus obtained from local stimulation to the mammæ might be rendered available in practice. Sinapisms, bran poultices, or other applications of a similar nature, would form useful derivatives in cases of suppression of the menses, whether inflammatory or anæmic. It would of course be necessary to treat the anæmic form with other remedies, as derivation alone would not suffice to relieve it. Sudden cessation of the lacteal secretion, whether arising from cold or other causes, might be advantageously treated in a similar way.

Some conversation relative to this subject ensued, in the course of which Dr. Druitt remarked, that he witnessed the employment of the treatment advocated by Dr. Cormack in some cases of suppression of the menses, and in one suppuration took place in one of the ovaries, which could be referred to no other source than to the application of a sinapism to the breast.

Dr. Snow Beck read a paper on

SUBACUTE INFLAMMATION OF THE UTERUS IN VIRGIN FEMALES; ITS SYMPTOMS, DIAGNOSIS, AND TREATMENT.

The author stated, that the symptoms accompanying this disease were seldom referred to their real cause, in consequence of being seated in parts of the body apparently remote from the affection, and from the menstrual function not being otherwise affected than by the increasing pain which attended it. The disease usually came on slowly and gradually, being indicated by pain in the lumbar region, sides of the abdomen, and inside of the thighs, which at first only existed during the presence of the catamenia, then became increased in degree, and finally existed permanently in these situations, being greatly increased at the menstrual periods. The catamenia appeared regularly, were not increased in quantity or in duration, nor were they preceded or followed by vaginal discharge. After a time, varying according to the individual constitution, the general health became affected, the patient became nervous and languid, with pain at the top of the head, bad sleepless nights, frightful dreams, waywardness of temper, depressed spirits, impaired memory, great irritability, considerable derangement of the digestive organs, and frequent palpitation of the heart, whilst the pulse was not accelerated. The pains attending this disease were frequently considered "an attack of spasms," whilst at other times they simulated disease of some distant organ, and were then known by the name of the disease thus simulated with the word "hysterical" prefixed. These simulated affections of the brain were especially referred to, and one marked case quoted. A young lady consulted him for severe pain at the top of the head, with a feeling of the eyes as if they would start out of the head She had been ill for some length of time, and had, also, much pain in the lumbar region, sides of the abdomen, and inside of the thighs; the general health was also much disturbed. The pain in the head became greatly increased, was aggravated on lying down, which caused her constantly to maintain the sitting posture, the head being supported by pillows; the head was hot; the light very disagreeable; the pulse accelerated; much thirst; no appetite; she "wished for nothing, only to be quiet;" and constantly pressed the lumbar region and sides of the abdomen with her hands "to relieve the severe pains." She became insensible; was incapable of being roused; the urine and motions passed involuntarily. Bleeding, calomel, and other remedies were employed with only temporary relief. There was, on her own part, great repugnance to the application of leeches to the uterus, but the continued suffering, and another approaching state of insensibility, overcame her prejudices. The leeches were applied, and much relief afforded, both in respect to the state of the head and the pains in the lumbar region and abdomen. Their repetition became necessary, sometimes preceding but especially following the catamenial periods, and under this treatment the young lady recovered her health in a few months. The diagnosis was considered with regard to dysmenorrhœa. This, with other appellations, as amenorrhœa, menorrhagia, etc., was considered as only expressing a prominent symptom, and not as being a disease. For this reason the author would gladly see these terms expunged from the nomenclature of uterine pathology.

Ulceration of the Virgin Uterus.—The author was convinced that no such disease had ever been shown to exist, whilst the statements concerning it he believed to be simply a clever trick to gain notoriety. He considered it a painful instance where the whole Profession had been disgraced for individual advantage.

From Ovarian Inflammation.—The existence of this disease had been greatly overrated; the pain in the erroneously named ovarian region being seated in the walls of the abdomen, and not in that body. This was shown by gentle pressure increasing the pain, but when continued deep into the pelvis, so as to affect the ovary itself, the organ was found to be in a healthy state.

From Inflammation of the Vagina.—This was shown by contrasting the previously detailed symptoms with those indicative of inflammation of the vagina, which were stated to be, pains in the sacral region, round the hips, down the outside of the thighs, behind the pubis, and in the groins; increase in the quantity, and prolonged duration, of the catamenia; vaginal discharges; fullness, throbbing, or shooting pains in the vagina; tenderness in sitting down; pain in passing the motions; and the sensation called "a bearing down."

The chief *cause* was considered to depend upon the social habits of our females, who, instead of separating from the world during the menstrual periods, entered into its gaieties as usual, and thus, by disturbing the balance of the circulation, laid the foundation for further disease.

In the *treatment* much stress was laid upon the importance of ascertaining (a), whether the uterine disturbance was the result of a derangement of the general health, or (b) whether the general condition of the health was the sequence of a uterine affection which still persisted. In the former, nourishing diet, mild stimulants, gentle exercise, and preparations of iron, would be beneficial. In the latter these remedies would be detrimental, by increasing the inflammation, and this especially with reference to the preparations of iron, which appeared to exert a decidedly stimulant effect on the uterus itself. Mild cases might be treated by rest, absence from excitement, regulation of the bowels, and an alkali, with hydrocyanic acid. But, in more severe cases, the application of leeches was indispensable. The leeches might be applied through a small tube, for it was of little practical importance whether they took on the uterus itself or on the upper part of the vagina. The author had not found either calomel or bichloride of mercury of much service; but, after the acute stage was subdued, the preparations of gold, combined with Indian hemp and camphor had proved of great advantage. Local applications he considered valueless, whilst nitrate of silver or other escharotics, he believed, only created further disease, instead of relieving what had previously existed.

A rather personal discussion followed, in the course of which Mr. Clark, Dr. Murphy, Dr. Tyler Smith, Dr. Crisp, and Dr. Barnes expressed their strong disapprobation of the language employed by Dr. Snow Beck with reference to the practice of those gentlemen who believed in the occurrence of ulceration of the os uteri, and who, if they were mistaken, were certainly actuated by honourable motives, and did not deserve to be charged with upholding a 'charlatan trick."

EPIDEMIOLOGICAL SOCIETY.

Dr. Babington, F.R.S., President, in the Chair.

The nomination of officers for the ensuing year took place at this meeting, the election being deferred till April.

A paper was read by Mr. Richardson on scarlet fever, and afterwards another, communicated by James Bower Harrison, Esq., on the same subject.

SCARLET FEVER.

The following is an abstract of Mr. Richardson's paper:—The author commenced by stating, that he should confine himself to the consideration of matters of fact in relation to scarlet fever. The types of scarlet fever had a brief notice. There could be no doubt that the disease showed a variety of types in individual cases; but in great numbers of cases such types became indistinct; and it would be much to the interests of science if medical men would cease to call the disease by different names, and would employ the one term, "scarlet fever," to express every form or shade of the disease. The occurrence of scarlet fever at the different periods of life came next under notice. A law might be laid down on this matter, viz., that up to the age of ten years, the liability to scarlet fever is very great; but that after ten, the liability rapidly decreases. A record of 402 cases from the report-books of the author and of three other gentlemen showed, that 310 of these cases occurred in children under ten years, and only 92 in the after-periods of life. The same law might also be shown by the Registrar-General's returns; and the attention of the Society was directed to a table derived from these returns, in which it was illustrated, that, out of 31,744 deaths from scarlet fever, 21,469, or more than two-thirds, occurred in patients under five years of age; 7756 at five years and under ten; 1755 at ten and under twenty years; 552 at twenty and under forty years; and only 212 in the after periods of life. A percentage table on the same subject was also exhibited. In reading over the various works on scarlet fever, the author had found more than one eminent writer (among others Withering) stating, that children under two years and babes at the breast were not subject to attacks of scarlet fever. This statement of time would describe a remarkable fact. It was not true, however; for in 212 cases of which he (Mr. Richardson) had notes, no less than 14 occurred in infants under two years of age. The returns of the Registrar-General indicated, that out of 12,902 deaths from scarlet fever in patients under five years of age, upwards of 7000 took place before the expiration of the second year. The same returns also showed, that in 3795 deaths from scarlet fever, 410 were in the first year of life, 1797 from the first to the third year, and 1588 from the third to the fifth year. These results were illustrated by tables. The greater prevalence of the disease in early life does not arise from any physiological peculiarity, but from the facts, that recurrence of the disease in the same person is contrary to the general rule, that most persons are subject to the influence of the disease, and that that influence is constantly present in a greater or less degree. The occurrence of scarlet fever in the two sexes was also discussed by the author. Up to the present time, every writer on the subject had asserted that the disease was more prevalent among females than males. The reports of the Registrar-General overturned this opinion, and showed that scarlet fever made no selection in the sexes, but attacked more males or females according to the relative number of males or females susceptible to its influence in any district where it might be epidemical. Three extensive tables were employed for elucidating this point. The manner in which the seasons influence scarlet fever was referred to at considerable length; and it was shown, by reference to the general observations of numerous authors, and by extensive statistical data, that the disease was most prevalent in the three last months of the year; next so, in the months of July, August, and September; next so, in January, February, and March; and least so, in May, April, and June. Mr. Richardson here took occasion to observe on the false statements which are apt to occur from making statistical tables out of small numbers of cases. *The Recurrence of Scarlet Fever.*—That scarlet fever might occur twice in the same person there could be no doubt; and, in addition to the written evidence brought forward in support of this fact, the author gave instances in which he had seen the disease recur, and stated, that he himself had suffered from it twice severely, and a third time mildly. He believed, however, that recurrence was rare, and that the disease never proved fatal in second attacks. *The Mortality of Scarlet Fever.*—This question, as far as it related to age, sex, and season, had been discussed already, incidentally; but there yet remained to be considered the mortality of the disease in various localities, and its relative mortality to other epidemic diseases. As regarded locality, the author was only able, he said, to speak of the disease as it occurred in this country; and he then went on to show, by tabular reference, that nearly twice as many deaths occur in towns as in rural districts; and also that the disease did not fall on the whole country at once with an equal degree of severity, but was at similar periods absent to a great degree in one locality and extensively present in another. The subject of the relative mortality of scarlet fever possessed much interest; and the author had taken great pains to illustrate it copiously by tables, derived from the Registrar-General's Reports. In one of these tables, the calculations were based on not less than 462,227 cases of death from seven epidemical diseases; and the results in all showed that scarlet fever was second only in its rate of mortality to typhus fever, as an ordinary epidemical disorder. After these observations on the mortality of scarlet fever, Mr. Richardson briefly summed up the various conclusions to which he had been led by his investigations, and finished by remarking, that if those conclusions exhibited differences from the usual opinions held on the subject, such differences arose solely out of the mode of inquiry that had been pursued; while, on the contrary, if it should be thought that some matters well known already were restated, those restatements had been based on particular evidence instead of general observation, and that—

> "Truth can never be confirmed enough,
> Though doubts did ever sleep."

The Society adjourned at the usual hour.

LAWS OF THE HULL MEDICAL PROTECTION ASSOCIATION.

1. *Objects of the Association.*—The principal objects of this Association are to support the respectability and maintain the interests of the Profession; to promote fair and honourable practice; and to use all lawful means to suppress illegal practice in the town of Hull and its neighbourhood.

2. *Qualification of Membership.*—Any legally qualified medical practitioner resident in Hull, or within ten miles of the town, in the county of York, who was engaged in practice before the year 1815; or who possesses a diploma from a Royal College of Surgeons in Great Britain or Ireland, practising as a pure surgeon; or a licence from th eApothecaries' Company, and practising as a general practitioner; or a degree in medicine from any legally constituted corporation of Great Britain or Ireland, and practising as physician, shall be admitted a member of this Association, in pursuance of the following laws.

3. *Subscription.*—Every member shall pay to the treasurer the sum of 5s. on entrance into the Association, for the purpose of defraying the general expenses of the Association; and any further expenses incurred by prosecutions of illegal practitioners shall be equally borne by each member of the Association according to agreement. Any member neglecting to pay his subscription one month after it has become due, shall have notice given thereof by the secretary; and if the subscription continue in arrear for six months longer, he shall be considered to have withdrawn from the Association, but may be re-admitted on payment of all arrears.

4. *Admission of Members.*—Any medical practitioner, qualified according to 2nd law, desiring hereafter to be admitted a member of the Association, shall be proposed by a member at any committee meeting previous to the general quarterly meeting, and shall be ballotted for at the next general meeting: one black ball in five of the gentlemen present shall exclude any candidate.

5. *General Meetings.*—A general meeting of the Association shall be held on the first Wednesday in July, October, January, and April, notice of which shall be given to each member by the secretary three days before such general meeting can be held.

6. *Annual Meetings.*—The annual meeting of the Association shall be held in the month of July, when all accounts of the receipts, disbursements, and proceedings of the Association for the past year shall be laid before the members.

7. *Election of Officers.*—At the annual general meeting a president, vice-president, two secretaries, and four other members shall be selected from and by the Association. The body thus chosen shall form a committee until the next annual general meeting.

8. *Duties of the Committee.*—The Committee shall meet on the last Wednesday in each month, to collect evidence, to fill up any vacancy which may occur, and to carry out the

objects of the Association. The secretary shall enter all proceedings of the Committee in a book expressly provided for that purpose, which shall be open for reference, at all convenient times, to any member of the Association.

9. *Special General Meetings.*—A special general meeting of the members of this Association shall be called by the Committee whenever they deem it necessary; but no other business shall be entertained at such meeting than that specified in the resolution of the Committee.

10. *Illegal Practice.*—Any cases of illegal practice, coming under the notice of any member of the Association, shall be reported, with full particulars thereof to the secretaries, who shall bring such evidence before the Committee at their next meeting, and report the same at the next general meeting of the Association.

11. *Prosecution of Illegal Practitioners.*—Any person practising as a general practitioner with a diploma from the College of Surgeons only, shall have six months' notice given him of the intentions of the Association, before any prosecution shall be instituted; and no prosecution shall be instituted without the consent of two-thirds of the members present at a general meeting of the Association.

12. *Prosecution of Unqualified Persons.*—Any other person, not mentioned in law 11, practising as a general practitioner, contrary to the Apothecaries' Act of 1815, shall be served with a notice from this Association to desist from so doing, prior to a prosecution being instituted.

13. *Alteration of Laws.*—No alteration of the laws shall take place excepting at a general meeting of the Association, of which proposed alterations four days' notice shall be given to each member in the circular convening the meeting.

MEDICAL NEWS.

Royal College of Physicians—At the usual quarterly meeting of the Comitia Majora, held on Monday, the 21st inst., the following gentlemen, having undergone the necessary examinations for diploma, were admitted members of the College:—

Armitage, Dr., Upper Charlotte-street, Fitzroy-square.
Bristowe, Dr., North Addington-street, Camberwell.

Also were admitted Extra Licentiates,—

Bayes, Dr., Marine-square, Brighton.
Holmes, Dr., Great Torrington, Devon.
Somerville, Dr., Walsall, Stafford.
Thompson, Dr., Newark-on-Trent.
Tuke, Dr., York.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, 17th March, 1853:—

Arnison, George, Allendale, Northumberland.
Death, Robert.
Evershed, Charles Lambert, Billingshurst, Sussex.
Liddon, Edward.
Sylvester, John Henry.

Apothecaries' Hall.—We understand that the Court of Examiners have determined to discontinue the practice of requiring students to register their lectures at the termination as well as at the commencement of the term. They will henceforth be required to register their lectures and hospital practice only at the beginning of each term, and the signature of the lecturers will be considered sufficient evidence of the attendance upon the respective courses. This step has been taken, we are informed, in consequence of the inconvenience to which students state they have been subjected by being compelled to attend the second registration.

APPOINTMENTS.

Military.—67th Foot: Assistant Staff-Surgeon Michael Fenton Manifold to be assistant-Surgeon, vice Edward William Bawtree, M.D., who retires upon half-pay. 1st West India Regiment: Walter William Harris, gent., to be Assistant-Surgeon, vice Cross, appointed to the Staff. Hospital Staff: Staff-Assistant-Surgeon Robert Cooper to be Staff-Surgeon of the 2nd Class, vice M'Bean, deceased; Assistant-Surgeon Philip Henry Enstace Cross, from the 1st West India Regiment, to be Assistant-Surgeon to the Forces, vice Cooper, promoted; Charles Thompson Abbott, gent., to be Assistant-Surgeon to the Forces; Assistant-Surgeon William Stewart James Horne Munro, M.D., has been appointed from the 93rd Foot to the 83rd Regiment, and not to the 82nd, as appeared in the *Gazette* of the 11th inst.

Yeomanry. — Queen's Own Royal Regiment of Staffordshire Yeomanry Cavalry: Thomas Dicken, gent., to be Cornet, vice Knight, resigned.

DEATH.

Graves.—It is our melancholy duty to announce the demise of Dr. Robert James Graves, of Dublin, who died on the 20th inst., at Merrion-square, aged fifty-six years. By his death, the Irish school has lost one of its brightest ornaments; one whose labours had made his name familiar in every European and American school. Dr. Graves was M.D. of Dublin University, 1823; late Professor of the Institutes of Medicine in the School of Physic; one of the physicians of the Meath Hospital, and of Sir Patrick Dun's Hospital; F.R.S. and M.R.I.A.; and member of many learned societies of Europe and America; author of "Clinical Medicine:" Honorary and Corresponding Member of the Royal Medical Society of Berlin, of the Imperial Medical Society of Vienna, and of the Medico-Chirurgical Societies of Hamburg, Tuhingen, Bruges, Montreal, etc.

Royal Institution.—At a meeting held on Friday evening, March 18, a lecture was delivered by Sir Charles Lyell, upon the coal strata of Nova Scotia, which Sir Charles had visited last autumn. The section of the coast which formed the special subject of the lecture extended about three miles, and consisted of a great number of strata lying in a very much inclined position, and presenting a great number of fossil trees placed at right angles to the strata, and which originally were, of course, in the erect position, the strata having been deposited around them, and being subsequently upheaved by subterranean agency. Sir Charles had ascertained that a great number of these trees, which belonged to the genus *Sigillaria*, were continuous with the roots of *Stigmaria*, thus confirming the view that these two genera were really the same. The chief feature in Sir Charles Lyell's investigations was the discovery of a fossil reptile lying in the hollow of one of the trees, and to which he had proposed to give the name "dendrerpeton," from its situation. This was the first discovery of a fossil reptile in the American coal-strata, and established the fact previously announced, that reptiles appeared in an earlier period of the geological history of our planet than was generally supposed. The lecture, which was the last of the weekly discourses before Easter, was warmly applauded by a numerous audience, including some of the most distinguished *savans* of the day.

Hunterian Society.—At the annual meeting of this Society, Mr. Hilton was elected to the office of President for the new Session; Dr. Ridge, Dr. Munk, Mr. John Birkett, and Mr. Poland, as Vice-Presidents. The gentlemen elected to the Council were, Drs. Greenwood, Little, M'William, Thompson; Messrs. W. Adams, Blenkarne, Cleveland, Curling, Law, Roberts, Solly, Walne. The Orator for the new session is Dr. G. Owen Rees; the Treasurer, as heretofore, Dr. Cooke; Librarian, John Birkett, Esq.; Honorary Secretaries, Dr. Habershon and Dr. Ramskill.

Society for Relief of Widows and Orphans of Medical Men in London and its Vicinity.—We beg to call the attention of our readers to the Annual Dinner of this Society, which is advertised to be held at the Freemasons' Tavern, on Saturday, April 2.

Surrey Medical Benevolent Society.—At a meeting of this Society, held at Reigate on the 16th of March, it was determined to subscribe, from the funds of the Society, 2000*l.* towards the endowment of the Medical Benevolent College, on condition that the Surrey Medical Society should have the perpetual right of nomination to certain exhibitions in the school. The Surrey Medical Society was originally established to relieve the wants of the widows and children of its members, and it has appeared to the promoters of the Society that they could not more effectually secure the objects desired than by obtaining for the children of members, at a cheap rate, the excellent education which they will receive in the Medical Benevolent College.

Hospital for Sick Children.—From the First Annual Report, just published, we learn that 143 children have been admitted as in-patients, and 1250 as out-patients, during the ten months that the hospital has been open. The number of beds open for in-patients is thirty. The total amount of donations and subscriptions received to December 31st was 4614*l.* 13s. 1½d.; the total amount expended was 2655*l.* 2s. 11½d.; so that the hospital has a balance in hand of 2169*l.* 9s. 3d.

Royal Medical Society of Edinburgh.—The Annual

Dinner of this Society, now in the hundred and sixteenth year of its existence, took place in the Waterloo Hotel, on Thursday last. Dr. W. Murray Dobie, Senior President, occupied the chair, and Doyle M. Shaw, Esq., Pres. Ann., officiated as croupier. In addition to a very large attendance of ordinary members, there were present the Presidents of the Royal Colleges of Physicians and Surgeons, several of the Medical Professors of the University, and other distinguished members of the Profession in Edinburgh. The Chairman stated that he had received letters from the Very Rev. Principal Lee, the Rev. Geo. Coventry, Professors Alison, Christison, Balfour, and Goodsir, and other gentlemen, expressing regret at being unable to attend the dinner.

Mortality Notabilia.—The effect of sudden changes of temperature does not immediately become perceptible to its full extent in the register of deaths. A period of more genial weather succeeded the low temperature that marked the month of February, and the mortality at length appears to have yielded slightly to its influence, for the deaths in London, which had continuously risen during six weeks till they numbered 1436, fell, in the week that ended last Saturday, to 1274. How far the sudden severity, that changed the character of the weather last week, has affected human life remains to be seen in future returns. The following are the principal meteorological facts of last week:—On Sunday, 13th instant, the highest temperature was 60·5°, the mean was 48·8°, or 7·6° above the average. The mean daily temperature was below the average on the three following days; and on Thursday the highest temperature was only 34·8°; the mean was 29·2°, or 12·6° below the average. On Friday, the mean was 28·5°, or 13·3° below the average; on Saturday, it was 10·2° below the average. The lowest temperature of the week occurred on Saturday, and was 24·2°, showing a range of temperature in the week of 36°. The mean dew-point temperature was 30·1°. In the ten corresponding weeks of the years 1843-52, the average number of deaths was 1095, which, if raised in proportion to increase of population, gives a mortality for last week of 1205. The 1274 deaths actually registered last week therefore exceed the estimated amount by 69. Fatal cases, arising from zymotic diseases, decreased from 244 in the preceding week, to 229 in the last, though the mortality of hooping cough, which is considerable, remains at nearly the same amount. Phthisis decreased from 167 to 131; other diseases of the respiratory organs, from 391 to 332. In the latter class are included bronchitis, which declined from 233 to 174, and pneumonia, which was fatal to 101 persons, or about the same number as in some previous weeks. In St. George, Bloomsbury, at 3, Russell-mews, on 15th March, the daughter of a servant, aged one year and nine months, died of "diarrhœa some months since, and subsequently broncho-pneumonia." With regard to this case, Dr. Richards writes, that "it was treated homœopathically, under which system the complaint was allowed to progress, and he was called in just at the finale to witness a life lost, in all probability from want of active treatment."

DEATHS *in the Metropolis for the week ending Saturday, March* 19, 1853.

Causes of Death.	March 19. 0	15	60	All Ages.	Sum of Ten Weeks.
All Causes	588	394	291	1274	10951
Specified Causes	585	393	291	1270	10908
1. Zymotic (or Epidemic, Endemic, and Contagious) Diseases	176	39	14	229	2026
Sporadic Diseases:					
2. Dropsy, Cancer, and other Diseases of uncertain or variable seat ...	5	23	22	50	468
3. Tubercular Diseases	73	111	5	189	1981
4. Diseases of the Brain, Spinal Marrow, Nerves, and Senses ...	73	37	42	152	1306
5. Diseases of the Heart and Blood-vessels	2	27	30	59	387
6. Diseases of the Lungs and of the other Organs of Respiration ...	155	88	89	332	2129
7. Diseases of the Stomach, Liver, and other Organs of Digestion...	29	25	18	72	610
8. Diseases of the Kidneys, etc. ...	...	7	4	11	122
9. Childbirth, Diseases of the Uterus	...	3	...	3	113
10. Rheumatism, Diseases of the Bones, Joints, etc.	1	6	1	8	86
11. Diseases of the Skin, Cellular Tissue, etc.	1	2	...	3	15
12. Malformations	6	...	...	6	25
13. Premature Birth and Debility ...	25	1	...	26	255
14. Atrophy	20	2	6	28	188
15. Age	...	...	57	57	663
16. Sudden	4	3	1	8	159
17. Violence, Privation, Cold, and Intemperance	15	19	2	37	345
Causes not Specified	3	1	...	4	43

TO CORRESPONDENTS.

Ingrowing Toe-nails.

[To the Editor of the Medical Times and Gazette.]

Sir,—Since I addressed you on the subject of "Onychia," I have tried the experiment of removing the fleshy fungus at the side of the ingrowing nail by the application of pure nitric acid (in the liquid form). In the one instance, I have so far succeeded, that a considerable portion of the scarf-skin has been gradually destroyed and cut away with the scissors, so reducing the level of the flesh to that of the nail. In the other case, that of the left toe, the application of the nitric acid caused far greater pain, and perhaps burned too far down, inasmuch as inflammation has since supervened, and at present there is a small suppurating sore, attended with some pain. To this suppurating sore the nitrate of silver has been applied once, but without forming an eschar. The sore, though less painful, is still open; and I would ask you whether you would advise a fresh and repeated application of the argenti nitras., or leave nature to herself? The sore is now simply dressed with dry lint; poultices are generally objectionable as softening the part too much. The eschar formed by the nitric acid around the sore is very large, and will doubtless soon separate. The adjacent fleshy part of the toe (not touched by the acid) is slightly swollen and inflamed.

An answer will oblige in your Notice to Correspondents.

I am, &c. Philo-Chirurgus.

Case of Triplets.

[To the Editor of the Medical Times and Gazette.]

Sir,—A short time since I was in attendance on a poor woman who was delivered of three children: the first-born is alive and doing well, and had its own separate and distinct placenta; the other two were still-born, having been dead some five or six days. I should think. They were attached to a double placenta. The mother is doing well. I am, &c.

Sidney-square, Mile-end. C. S.

[To the Editor of the Medical Times and Gazette.[

Sir,—The enclosed I found at the house of a patient, they having been thrown into the hall. Since then I have discovered that this Mr. Dodd has advertised his "Pulmonic Cough Syrup" in the "Lambeth Gazette."

Any comment upon my part is needless, well knowing how you usually exert yourself in chastising such offenders.

I am, &c. A Subscriber.

I enclose my card.

"Pulmonic Cough Syrup, a safe and effectual cure for coughs, colds, shortness of breath, influenza, and all complaints of the chest and lungs.—In consequence of the variable climate of England, few persons escape during the winter months from severe cold and coughs, which, from want of early and due attention, lay the foundation of alarming and often fatal disease, neglected cough being the forerunner of consumption. Formidable as coughs and colds frequently prove to be, the proprietor of this medicine feels perfect confidence in stating, that if it is taken as directed, a speedy cure will be the happy result. Prepared, and sold in bottles, price 1s. 1½d., by Mr. Dodd, surgeon and accoucheur, 91, Westminster-bridge-road. Mr. Dodd may be consulted, mornings before eleven, and after six o'clock in the evening. The diseases of women and children receive particular attention. The only warehouse for Bolton's camphorated plasters for the chest, also Bolton's opiate essence for the toothache."

A Memoir of Dr. Graves is in hand, and will be presented to our readers next week.

W. B. M.—We regret that we are unable to find room for the paper on "Sympathetic Derangement of the Brain." It is left with our publisher.

G. B., Ipswich.—Mr. Stringfellow's address is Chard, Somersetshire.

An M.B. Lond., and a Constant Reader, is certainly entitled, by courtesy, to the designation of doctor.

An Aspiring Student.—Question 1. Ramsbotham and Rigby; they may be procured of Mr. Churchill or any other bookseller. Q. 2. We think he is by no means warranted in applying for such a situation. Q. 3. From thirty to forty pounds a year. Q. 4. Hardly, if unqualified. His being an Irish gentleman would, however, prove no obstacle to his obtaining such a situation.

A Subscriber will find his inquiry answered in our Medical News for this week.

S. E. R. B.—Hall's Algebra, Simpson's Euclid, De Morgan's Elements of Arithmetic, Chambers's Educational Course on Natural Philosophy, or the work of Dr. Golding Bird; Fownes' Manual of Chemistry; Latham's English Grammar; Keightley's History of England; Schmidt's History of Rome; and on the other subjects any good school books.

Obstetricus.—We would rather not publish your letter. The advice it contains has been already given without any avail to the headstrong practitioner alluded to. We can give a man arguments, but it is impossible to find him brains to understand them.

Dr. Cooke's paper shall be inserted at our earliest convenience.

L. M.—Arthur Henfrey, Esq., is the editor of the Journal alluded to.

The "Botanical" Quacks.—In a recent number of a penny sheet issued by these gentry, the triumphant acquittal of their confrère at the Old Bailey is loudly announced. The same publication bestows unqualified approval upon Mr. Justice Maule for his conduct at the late trial, and the learned Judge must no doubt be highly gratified by the praises coming from such a quarter.

R. C. Kersey, Littlebourne.—The address is No. 8, Russell-place, Fitzroy-square.

A Subscriber shall receive an answer next week.

COMMUNICATIONS have been received from—

Dr. Todd, King's College Hospital; Dr Ramskill, St. Helen's-place, Bishopsgate-street; Henry Munroe, Esq., Hull; J. L. Levison, Esq., Brighton; Philo-Chirurgus; John W. Wilkins, Esq., South-square, Gray's-inn; J. C. Brown, Esq., Fort Pitt, Chatham; Dr. Collins, Wanstead; Jas. Yearsley, Esq., Savile-row; A General Practitioner; A First Year's Student; C. Sturges, Esq., Sidney-square, Mile-end; Dr. Sheridan Muspratt, Liverpool; Alfred M'K. Millman, Esq.

ORIGINAL LECTURES.

CLINICAL LECTURE

ON

CASES IN WHICH PUS IS FOUND IN THE URINE, (a)

DELIVERED AT

King's College Hospital.

By ROBERT B. TODD, M.D. F.R.S.

Physician to the Hospital.

Gentlemen,—The occurrence of such a product as pus in the urine is in itself a formidable and an alarming sign, and it is most important that you should be able to determine the exact source whence it comes; and you ought to have your minds well made up as to the conditions which are apt to give rise to purulent urine. I propose to bring this subject before you in this and my next lecture.

We have at present in the hospital two very interesting cases of this nature. One is the case of a man named Rickman, in Sutherland Ward; the other is that of a young woman, named Jenkins, in Lonsdale Ward. Both these persons are passing pus in their urine, but under very different circumstances. The presence of pus, however, in the urinary secretion is the prominent feature in both cases. We speak of pus in the urine generally, just as we speak of blood or of albumen in urine; and we find that the presence of either of these substances must be regarded not as the essence, but as an important symptom of the disease.

These two cases resemble each other only in the fact of the presence of pus in the urine; they differ from each other in the nature of the malady under which the patients are suffering, for in each case the pus is derived from a different source, and under conditions which require each a different plan of treatment.

But before I go further, let me say a few words on the means at our command for detecting the presence of pus. Suppose a specimen of urine is brought to you in which pus is suspected to exist, how do you proceed to detect the pus? and how can you distinguish it from other deposits which we know to the naked eye present appearances not unlike those of pus? The remarks which I shall make on this point will apply to those cases in which we have a fair amount of pus present,—a quantity, in fact, sufficient to form more or less of a deposit evident to the unaided eye.

Urine containing pus, then, generally exhibits a certain cloudiness or muddiness, so that when you hold it up to the light you cannot see through it; the clear, transparent appearance of the healthy secretion is absent. If you have an opportunity of inquiring into the circumstances under which this urine is passed, you will find it has been muddy from the moment when it was passed, and that it had not become so after standing for some time. This constitutes another distinctive character of urine containing pus, and enables us to distinguish it from lithate of ammonia, which sometimes forms a deposit that exhibits much of the general appearances of pus; for the urine from which the lithate of ammonia is deposited is always perfectly bright and clear when first passed, and becomes turbid only after it has cooled, the lithate of ammonia being perfectly soluble in the secretion while warm. Hence you should always be particular to ask the patient if his urine is clear when passed, unless you have an opportunity of seeing and testing it yourself; but this we are frequently prevented from doing, and it becomes important, therefore, to gain as much information as possible with reference to this very important symptom. If the urine be clear when passed, and becomes muddy only after standing, we may lay it down that the turbidity depends upon lithate of ammonia, and not upon the presence of pus.

Purulent urine, besides possessing this muddiness, has also this character,—that after a time a deposit from it collects at the bottom of the vessel, and forms a layer, varying in thickness, (according to the quantity of pus present,) of a yellowish green material, which has a creamy consistence. This deposit leaves the supernatant fluid more or less clear, according to its greater or less completeness; but frequently the urine continues to hold a certain quantity of pus in suspension, which leaves a certain amount of turbidity or milkiness in the supernatant fluid. If the urine be allowed to stand for some time, this greenish layer of pus undergoes certain changes, by which the decomposition of the urine is brought about; and the fluid soon becomes alkaline, owing to the presence of carbonate of ammonia, which is caused by the decomposition of the urea. At the same time, the alkali, thus developed, re-acts in a peculiar way on the pus, which is observed to become thick, viscid, and ropy, and to lose its minutely granular appearance, becoming more or less transparent, and forming what has long been described as glairy mucus. It has been found that potash (and I believe the observation was first made by Dr. Babington) also re-acts in this manner upon pus, and, in consequence, it becomes a valuable re-agent to enable us to detect the presence of this substance.

Here I take a specimen of urine exhibiting the general characters which I have just described as being characteristic of purulent urine. You see there is an abundant creamy-looking deposit; and if I pour off the supernatant fluid, and add a little of this liquor potassæ, you will perceive the change occur which I have just mentioned. As I shake the vessel, you observe the deposit becomes tenacious and glairy, so that, when I attempt to pour it into another vessel, it does not drop, but runs off in a viscid stream, very like uncoagulated white of egg; indeed, many persons might mistake this glairy mass for white of egg. Pus altered in its character in this manner by the carbonate of ammonia, set free in consequence of the decomposition of the urea, was, until late years, ordinarily considered as a deposit of glairy or ropy mucus; but it has since been shown that mucus never assumes this particular form of a ropy sediment, which sinks to the bottom of the vessel; nor does it ever exist in the urine in such quantity as we frequently find this altered pus.

I have said that purulent urine is always muddy; but this is not a character by which we are enabled with certainty to say whether a given specimen contains pus. Urine may be muddy from other causes; I mean, urine may exhibit a muddy appearance as soon as it is passed from the presence of other deposits besides pus. Phosphatic urine is also muddy, and often much resembles purulent urine; but generally it appears paler than the latter. After phosphatic urine has been standing for some time, a deposit is always found just as occurs in purulent urine; but, in the former, the deposit is usually white instead of being yellow, and is flocculent and light instead of being thick and heavy. We also observe this very important difference between these two forms of deposit, that the addition of a little acid renders the phosphatic urine perfectly clear, while it increases the turbidity of the other. This re-action will always enable us conclusively to distinguish between a specimen of urine muddy from the presence of pus and one which is rendered turbid by the precipitation of phosphates. Phosphatic deposits are all readily soluble in dilute mineral acids, and are precipitated again from the acid solution by ammonia. Purulent deposits are not dissolved by dilute acids; but frequently the turbidity is increased, owing to the precipitation of a little albumen from the liquor puris. Another distinctive character of urine containing a considerable amount of phosphate is, that it is usually, though not always, alkaline; while purulent urine more frequently exhibits a slightly acid re-action, at least when quite fresh, or it may be neutral; but we do not frequently meet with urine of this description of a strongly acid re-action, unless the patient is taking large quantities of mineral acids at the time. Then, as I mentioned to you just now, we have in alkalies a most excellent and easily-applied chemical test, which will enable us with certainty to discriminate between these deposits; and liquor potassæ has been found the most convenient alkali which we can use for the purpose, as it will keep well, and requires no great profundity of chemical knowledge in its application; and, so far as I know, is not open to any sources of fallacy.

There are other points distinctive of urine containing pus. If we apply heat to the clear fluid after the subsidence of the deposit, it will coagulate, and the amount of coagulation which takes place will be in direct proportion to the quantity of pus present. This will take place if the urine be acid; if it be alkaline, you must acidulate it before heating it. The albumen is derived from the liquor puris, and hence purulent urine is always albuminous, and it is albuminous because purulent.

(a) Lecture XXXVII., reported by Dr. Beale.

For an additional and unequivocal test of pus, you must look to its physical constitution. Pus consists of two essential parts, *the liquor puris*, and *the pus globules* which are held in suspension in the former, just as the blood-corpuscles are suspended and float about in the liquor sanguinis. The *pus globules* or *pus cells* are to be recognised by the microscope. If a specimen of urine contain albumen, it may be derived from the liquor puris, and may, therefore, be indicative of the presence of pus, or it may be due to the escape of serum only, as occurs in Bright's disease and in nephritis. This point may be at once settled, as regards the presence of pus, by examining a drop of the turbid urine under the microscope, when we shall not fail to recognise the pus corpuscles if pus be present in the urine. These particles are somewhat larger than the red corpuscles of the blood, and differ from them in shape, being globular, while the latter are biconcave discs. They much resemble the colourless corpuscles of the blood, but appear darker and more highly granulated than the latter. This granular appearance seems to be owing to the presence of numerous highly refracting molecules in the pus corpuscle, which are doubtless of a fatty nature; and to them, most probably, the change which occurs on the addition of liquor potassæ is due, the fatty matter being converted into a soap by the alkali. When treated with acetic acid, the pus corpuscles exhibit two or three circular bodies in the centre, having much the appearance of oil globules. Some corpuscles are found to contain three or four of these bodies; others two; and in some, only one can be detected. The presence, then, of particles like these will enable you to distinguish pus from all other deposits which occur in the urine.

We have also to distinguish the pus deposit from deposits of mucus. Mucus seldom forms a distinct stratum, like pus; if viscid, it is so when acid; but pus exhibits the glairiness, which renders it liable to be mistaken for mucus, only when it is alkaline. If we examine mucus under the microscope, we shall not fail to detect more or less of epithelium, and the so-called mucus particles in small numbers, which, doubtless, are incipient pus corpuscles. Mucus, again, does not re-act, like pus, with solution of potash, and it is soluble, to a great extent, in acetic acid.

Having considered the more prominent features of deposits of pus as they occur in the urine, let me say a few words upon the various sources from which the pus which is found in the urine may have been derived, and the circumstances which may give rise to its formation. The pus may have been developed from the lining membrane of any of the surfaces over which the urine would flow as it passes from the kidneys, or in contact with which it would come. It may come from the urethra in the male; and in the female it is often derived from the mucous membrane of the vagina. When we examine the urine of a female, and find pus present in it, we should always be careful to inquire if leucorrhœa be present, and in very many cases this will be found actually to be the case. It therefore becomes important to keep this in view, for I have known many persons much puzzled, from this simple circumstance. They have found pus in the urine, and have been unable, from the absence of other symptoms, to draw any conclusions with reference to its origin. Pus may likewise come from an adjoining abscess which has opened into one of the urinary passages. An inflammatory state of the mucous membrane of the bladder is one of the most common causes of the presence of pus in the urine; and inflammation of the ureter, and of the pelvis of the kidney (*pyelitis*) will also give rise to it, and, though last, not least, suppurative inflammation of the kidney itself.

When the quantity of pus discharged is considerable, I do not know of any particular feature, either of it or of the urine, by which it may be determined whether the pus comes from an abscess in the kidney, or from some of the surfaces over which the urine passes, as the pelvis of the kidney, the ureter, or the bladder.

One point in reference to this matter, which will be very important if future investigation will confirm it, is due to my friend, Dr. Beale, who thinks that, in those cases in which the pus is derived from the bladder, ureters, or pelvis of the kidney, triple phosphate is almost invariably present; but in those instances in which the pus is due to an abscess in the kidney, or to the presence of an abscess situated external to the urinary passages, and communicating with them, the crystals of triple phosphate are almost always absent.

This difference exists in a very marked manner between the two cases which are now in the house. The woman Jenkins, in Lonsdale Ward, has been passing large quantities of pus for some months, in which the triple phosphate cannot be detected; and, from other signs, we should be disposed to infer that the matter comes from an abscess of the kidney. On the other hand, in the urine of the man (Rickman) in Sutherland Ward, we have always observed a considerable quantity of the triple phosphate, and there can be no doubt that he is labouring under an inflammatory state of the mucous membrane of the bladder, and that that membrane is the source of the large quantity of pus which is found in his urine. When mucous surfaces are highly irritated, we find they have a great disposition to secrete phosphate, and this may account for the great quantity of triple phosphate we usually meet with in cases of irritation of the mucous membrane of the bladder or pelvis of the kidney. Abscesses formed in the neighbourhood of the urinary passages, and opening into them, may furnish pus to the urine. Thus a prostatic abscess may burst into the urethra, or a lumbar abscess may open into the ureter.

I shall now beg your attention to one of the cases which have led me to take up this subject. It is that of the man named Rickman in Sutherland Ward.

I may here state, *in limine*, that Rickman appears to me to be labouring under gouty inflammation of the bladder. Gout may occur in the bladder, as it does, undoubtedly, in the stomach; and the symptoms of gout in the hollow viscera are highly interesting, and deserve your attentive consideration.

Now, the history of the first part of this patient's illness (who is 44 years of age) is very much the same as that of all those who, in common phrase, "earn the gout for themselves." He was in early life a butler, and accustomed to drink freely of ale and gin. He subsequently entered the police force, where he was compelled to draw in somewhat in his potations. He did not remain long in this line of life, and soon abandoned it for the business of keeping cows in the neighbourhood of London. He has been engaged in this vocation for the last five years; and, during that time, he did not live so well as formerly, but still he contrived frequently to drink largely of porter.

He had enjoyed, despite of his bad habits, very good health until ten years ago, when he was seized with his first attack of gout. This came, as it so often does, first in the great toe. It was not, however, confined to that joint, but attacked subsequently the ankles, knees, and wrists, shifting its position from one to the other. In subsequent attacks, of which he had four or five in the course of each year, it would sometimes exhibit this shifting character, and sometimes attack all these joints simultaneously. The tendency to shift is an important feature in the case, for it is where the disease exhibits this proneness to wander that we most frequently find it attacking internal organs, especially hollow viscera, such as the stomach and the bladder. During the last ten years, then, he has been subject each year to several similar attacks. About seven years ago, during a period of intermission between his attacks, after a long walk one day, he was seized with violent pain in the bladder, accompanied with difficulty of micturition, and, when he came to examine the urine which he had passed, he discovered blood in it. He sought immediately for medical assistance, and fomentations were freely used, and he took some medicine, under which the attack subsided in a few days.

What, then, can we pronounce this attack to have been? Was it caused by the sudden entrance into the bladder of a renal calculus, which had previously caused no disturbance? or by a vesical calculus, which now for the first time announced its presence? The fact, that the patient had evinced no previous symptom whatever of either renal or vesical calculus tells very much against this view. The mode of access and the course of the attack comport with what we know of the clinical history of gout, as it affects acutely either joints or hollow viscera. The rapidity or suddenness of its invasion is the most striking feature, and this in a highly gouty subject, whose gout is of the asthenic and erratic kind. Add to this, that the attack was of short duration, and yielded in a few days to medical treatment, and you have another strong point against its being due to the mechanical irritation of a foreign body, such

as a calculus, of the expulsion of which from the bladder there was no evidence. Under these circumstances I am disposed to view this attack as one of gout in the bladder—that viscus being seized suddenly, just as a great toe or any other joint is in the ordinary acute attacks of this disease. The inflammatory state of mucous membrane excited a rapid development of a high degree of congestion of that membrane, some of the vessels of which giving way, gave rise to an escape of blood, and to the hæmaturia which accompanied the attack.

Since this first attack in the bladder, our patient has been subject once a year to one in all respects similar, coming on in the same way and yielding as speedily to treatment, but not leaving the bladder quite unscathed. Were the vesical symptoms due to a mechanical cause, there can be no doubt the attacks of pain in the bladder, etc., would have been very much more frequent.

For the last three years he has been disabled from work by weakness of the knees and ankles, the fibrous structures of which are a good deal thickened, and during this period he has had some severe attacks of gout.

About three months before last Christmas (not having had an attack of gout for six months previously) he was seized with pain in the left lumbar region, which for three days continued very severe, and was accompanied by the discharge of bloody urine, and by pain at the end of the penis and itching along the whole course of the urethra after micturition. From this attack he got quite well under medical treatment, but in February he was again seized with a similar attack, the pain being referred to the loins, and blood being passed with his urine. From that time until his admission into this hospital (May 14, 1851) he has suffered more or less under these symptoms, the blood disappearing from his urine occasionally for a whole week.

On admission we found him complaining of pain in the back, especially in the left lumbar region, slightly increased by pressure, and also of pain in the bladder more severe than that in the back. This latter pain was most severe when the bladder contained urine. The power of retaining the urine was a good deal impaired, due, perhaps, partly to a highly irritable state of bladder, and partly to a weakened condition of sphincter.

The urine had a decidedly smoky colour; its specific gravity was 1012, alkaline, and it contained blood, as ascertained by the microscope, and pus in considerable quantity. The man states positively that he never observed any indication of gravel, and never passed any calculus. The quantity of urine passed in twenty-four hours was about two pints. To relieve the irritable state of the bladder, he was ordered a starch enema, with ten minims of tincture of opium every night, and was put upon dilute nitric acid, beginning with ten minims thrice a day in water.

He had only been two days in the hospital when he was attacked with gout in the thumb of the right hand, and three days afterwards (May 19th) the right knee became affected, and a copious effusion took place into it. Both ankles were also attacked on the evening of the same day. When the articular affection was thus developed, the pain in the back and bladder became decidedly mitigated. The urine, however, still retained the same characters—it was of low specific gravity, alkaline, and contained blood and pus.

Now, the points which we had to determine in this case were these, first, the source of the blood and pus; secondly, the nature of the pain in the back; and, lastly, the actual state of the bladder.

Observe that all the symptoms which this patient exhibited might be caused by the irritation of a calculus in the kidney, or of a calculus in the bladder.

I have already stated to you my reasons for believing the former attacks in the bladder to be due to gouty inflammation of that organ, and not to the presence of a stone in it. The existence of a calculus in the bladder might easily have been ascertained by sounding; but our patient had a very contracted state of urethra at its orifice, and for some distance behind, which rendered it very difficult to introduce an instrument, even of the smallest size. We, therefore, for the present, contented ourselves with relying upon the evidence of general symptoms.

If the view which I took of the bladder affection were correct, it would indicate that the lumbar pain was probably due to a similar gouty inflammation of the ureter, and perhaps in some degree of the kidney, and that it was caused by an extension of the vesical inflammation to the ureter, and perhaps pelvis of the kidney.

Our three points, then, on this view of the case might be thus explained.

First, the source of the blood and pus is, and has been all along, the bladder; perhaps, also, the ureter; secondly, the pain in the back is referable to gouty irritation of the kidney and ureter; and, thirdly, the mucous-membrane of the bladder is in a state of chronic congestion and inflammation, and is the subject of frequent hæmorrhages and secretes pus.

But you will ask, how do I show that the pain in the left lumbar region is not caused by a renal calculus, and that the kidney may not be the source of the pus? The relation of time which the vesical and renal symptoms bear to each other is strongly opposed to the suspicion that a renal calculus has been at the bottom of his illness. The symptoms were distinctly referable to the bladder long before any lumbar pain was manifest. Those annual attacks of gouty inflammation of the bladder were, as you will remember, among his earliest symptoms. Now, these attacks are not to be explained on the supposition of the existence of a calculus in the kidney, more especially in the absence of symptoms pointing to disturbance in that organ. The symptoms of renal calculus, *while it is yet in the kidney*, are generally sufficiently distinct—you will have more or less pain in the back; probably, also, bloody micturition to a greater or less extent, and, when it begins to move down, more or less pain, both in the loins and along the ureter, according to the size of the calculus, and the resistance which its passage encounters, and sometimes sickness, vomiting, and even hiccough. A renal calculus, however, may excite inflammation and abscess of the kidney, and so may cause discharge of pus and blood; but in such case you will not have so complete nor so long an intermission of symptoms as in the present case, nor will you have those symptoms referred solely to the region of the bladder.

A calculus may be impacted in the kidney or ureter, and cause no pain, as long as it is stationary; when it begins to move, the pain and the disturbance begin. If it fix itself again, these symptoms may cease.

You had a good example of this, not very long ago, in a man named Steventon, in Sutherland Ward, who died of phthisis. Some weeks before his death, he complained of pain in the back, and of very marked pain down the course of the ureter on the right side. For some time these symptoms disturbed him a good deal, but subsided altogether three weeks before his death. I diagnosed a calculus in the kidney or ureter on that side; and, after death, we found one, as large as an almond-shell, tightly impacted in the right ureter, about an inch from its opening into the bladder. The ureter and pelvis of the kidney were much dilated above the obstruction, and the kidney was beginning to become sacculated. Now, in this patient there was a slightly irritable state of bladder, no doubt owing to the stone passing down so near to that viscus; but these symptoms subsided when the stone became impacted and quiescent; and you will observe, also, that the vesical symptoms *followed* the lumbar pain and pain in the course of the ureter. It is otherwise with our patient, Rickman; with him the vesical symptoms were long antecedent to the lumbar affection; and, if a calculus exist, (which is quite possible,) it is probably in the kidney, and may have excited a separate inflammation of that organ, distinct from the bladder affection.

The view which I have taken of this case is, I think, confirmed by the subsequent history. The treatment with which we began was persevered in,—the opiate enema, the dilute nitric acid,—which, after a little, was given in decoction of Pareira brava, and the dose gradually increased to 30 or 40 minims. Fomentations were frequently used over the region of the bladder, and counter-irritation was established in the same situation by mustard. The gouty joints were wrapped up in wool, so as to promote sweating, and small blisters were occasionally applied to them. A sedative and sudorific draught was frequently administered at bed-time.

Under this plan, the general gouty state became much diminished, the joints recovered themselves, the irritable state of bladder diminished, and the quantity of purulent discharge was much reduced; still the alkaline condition remained, and the purulent secretion, although in greatly diminished quantity, continued. I attributed this now to

the impediment which existed to the free evacuation of the bladder, by the contracted state of the anterior extremity of the urethra, caused by an inflammation of that part of the canal in his boyhood, and, accordingly, means were taken to diminish and remove this impediment by daily dilating the urethra. By perseverance in this plan, the urine is improving much in quality, and I cannot doubt that, ere long, it will become quite natural.

When you find pus in the urine, and have reason to suppose that it comes from the bladder, it is a point of primary importance that it should have a free exit. Urine retained in the bladder becomes a source of irritation of that organ, by becoming decomposed, and developing carbonate of ammonia. It is in this way that we get ammoniacal and purulent urine in paralysis of the bladder from spinal disease. The retained urine is decomposed, inflammation of the bladder is excited, and pus is generated, which is made viscid by the free alkali of the urine.

I shall continue this subject in my next lecture.

A COURSE OF LECTURES ON ORGANIC CHEMISTRY,

DELIVERED IN THE

Laboratory of the Royal Institution of Great Britain.

By DR. A. W. HOFMANN, F.R.S.
Professor at the Royal College of Chemistry.

Lecture V.

I MENTIONED to you in the last lecture that a mode of verification frequently employed in ascertaining the formulæ of organic compounds, consists in the determination of their specific gravities in the state of vapour. To-day it is my intention to explain to you the manner in which chemists avail themselves of this verification; but, in order to do so, you must allow me to recall to your minds a few facts, elicited in the study of the relations which exist between the equivalents of the elements and their specific gravities in the state of gas or vapour.

In the following table the specific gravities of several elements are compared with their equivalents:—

	I.	II.	III.	IV.
Hydrogen	1·	0·0692	1· or 1×1	1
Nitrogen	14·	0·9713	14·03 or 1×14	1
Chlorine	35·5	2·44	35·26 or 1×35·5	1
Bromine	80·	5·39	77·89 or 1×80	1
Iodine	127·	8·716	125·95 or 1×127	1
Mercury	100·	6·976	100·80 or 1×100	1
Oxygen	8·	1·10563	15·97 or (2× 8)	½
Phosphorus	31·	4·326	62·51 or (2×31)	½
Arsenic	75·	10·37	149·88 or (2×75)	½
Sulphur	16·	2·218(a)	32·05 or (2×16)	½

(a) At 2120° F. (1000° C.), according to recent researches of M. Bineau.

Column I. gives the equivalents of the elements; column II., the specific gravities referred, as usual, to the weight of air, as unit; in column III. you find the specific gravities, the weight of hydrogen being taken as unit.

By comparing the numbers in column III. with those in column I., it is evident that they coincide in the first six substances, and that, in the following four: oxygen, phosphorus, arsenic, and sulphur, the numbers in column III. are double those in column I.

Now, as the numbers in column III. represent the weights of equal volumes—being, as I have stated, the specific gravities—it is evident, that the volume occupied by one equivalent of hydrogen being assumed as unit, the equivalents of nitrogen, of chlorine, bromine, iodine, and mercury, form likewise one volume of gas or vapour; while the equivalents of oxygen, phosphorus, arsenic, and sulphur, respectively correspond to half a volume of gas or vapour.

For the sake of perspicuity, the volumes occupied by the equivalents of the several elements are likewise given in our table, namely, in column IV.

This column exhibits in a striking manner the simplicity of the proportions in which the elements combine with each other. These numbers, which represent the *volumes* in which the elements combine, with reference to hydrogen as unit, are called combining measures, combining volumes, or equivalent volumes, in contradistinction to the terms, combining numbers, combining proportions, and equivalents, which apply exclusively to *weights*.

The combining proportion, or the equivalent of a compound is, as you recollect, obtained by adding the combining proportions or equivalents of the elementary constituents.

The combining measure, or equivalent volume of compounds, is frequently obtained in the same manner.

Thus, the combining volumes of the well-known hydrogen-acids of chlorine, bromine, and iodine, are simply ascertained by summing up the constituent volumes.

The atomic composition of these acids is represented by the formulæ—

HCl HBr HI

If we translate these formulæ into volumes, we have, in the case of hydrochloric acid,

H 1 = 1 volume of hydrogen.
Cl 35·5 = 1 ,, chlorine.

HCl 36·5 = 2 volumes of hydrochloric acid.

The combining volume of hydrochloric acid, then, equals 2 volumes of gas; *i. e.*, the equivalent of hydrochloric acid (36·5) is represented by two volumes; the equivalents of hydrobromic acid (81) and hydriodic acid (128) likewise correspond to 2 volumes of vapour.

Again, the equivalent of cinnabar or protosulphide of mercury is represented by HgS.

Hg = 100 = 1 volume of mercury-vapour.
S = 16 = ½ ,, sulphur ,,

HgS = 116 = 1½ volume of cinnabar vapour.

The combining volume of cinnabar is 1½; *i.e.*, the sum of the combining volume of mercury and the combining volume of sulphur.

It appears, then, that in the case of the four substances just mentioned, and in that of a great many others, we obtain the equivalent volumes simply by adding the constituent volumes.

But it frequently happens, that the sum of the constituent volumes does not represent exactly the equivalent volume. A contraction frequently occurs during the combination of the elements, and the volume of the newly-formed compound is less than the sum of the volumes before chemical combination had taken place.

In such cases, however, we find that the actual equivalent volume invariably bears a very simple relation to the ideal volume, if by that term I may be allowed to express the sum of the equivalent volumes.

Thus we find the equivalent volumes of ammonia (NH_3), of water (HO), and of sulphuretted hydrogen (HS), to be as follows:—

N = 14 = 1 volume of nitrogen.
H_3 = 3 = 3 ,, hydrogen.

NH_3 = 17 = 4 ,, the mixed gases, found by experiment to become 2 ,, ammonia.

H = 1 = 1 ,, hydrogen.
O = 8 = ½ ,, oxygen.

HO = 9 = 1½ ,, the mixed gases, found by experiment to become 1 ,, aqueous vapour.

H = 1 = 1 ,, hydrogen.
S = 16 = ½ ,, sulphur vapour.

HS = 17 = 1½ ,, the mixed gases, found by experiment to become 1 ,, sulphuretted hydrogen.

Experience has proved, that, in all cases which have hitherto been carefully examined, whether the elements combine without change of volume, or whether a contraction takes place during combination, that equivalent weights of compounds, when converted into vapour, occupy a bulk which corresponds to one of the three cases which I have just mentioned; namely, that they fill either 1 volume, like the equivalent of water; or 1½ volume like the equivalent of cinnabar; or, lastly, 2 volumes, like the equivalents of hydrochloric, hydrobromic, and hydriodic acids, and like ammonia. It has been found, moreover, that the rarest cases are those in which the equivalent corresponds to 1½ volume, that those

in which it corresponds to 1 volume are more frequent, whilst those in which the equivalent represents 2 volumes occur by far the most frequently.

This result having been established by a very considerable number of observations, it is evident that the examination of the volume, which the equivalents or formulæ of compounds occupy when converted into vapour, must furnish a very valuable mode of testing the correctness of the equivalents or formulæ in question.

Suppose that we are studying a new compound, that we have ascertained the relative proportions of the elementary atoms of which it consists, by the processes which have been already explained to you, and that we have established the simplest atomic expression of the compound; we now want to determine whether this formula represents the equivalent of the compound. All our attempts to combine the substance with bases or acids have failed, the origin of the compound is unknown, it yields no characteristic products of decomposition. But, suppose that we are able to ascertain the volume corresponding to a weight of the compound expressed by the formula, and that we find this weight corresponding to two volumes of vapour, we admit at once the formula as representing the equivalent; if it corresponds to 1 volume, it may still pass. On the other hand, it becomes doubtful if it corresponds to $1\frac{1}{2}$ volume. But we reject the formula as unlikely to represent the true equivalent of the compound if we arrive at any other number of volumes, such as $2\frac{1}{2}$, 3, or 4, etc.

The question then resolves itself into this, How can we experimentally find the volume which the formula of a chemical compound represents? It is evident that chemists possess a simple and perfectly trustworthy method, in the determination of the specific gravities of the vapours of such compounds. Suppose we refer, as I have done in the above Table, all specific gravities of gases and vapours to hydrogen as unit, instead of air or oxygen, which are frequently assumed as the standards of comparison, we find in such cases that the specific gravities of the substances which have already been named, are represented by the following numbers:—

Hydrogen	1
Hydrochloric acid	18·02
Hydrobromic acid	39·46
Hydriodic acid	64·11
Ammonia	8·61
Water	9·
Sulphuretted hydrogen	17·18
Sulphide of mercury	77·3

What do these numbers represent? Evidently the specific gravities of the gases or vapours in question, but in addition they represent the absolute weights of 1 volume of these gases, inasmuch as we have agreed that 1 (by weight) of hydrogen should also be 1 of hydrogen by volume.

There is now no longer any difficulty in determining the volume corresponding to the equivalent; it is obtained by a simple rule of proportion. Assuming the case of hydrochloric acid, the equivalent of which is 35·5 + 1,

$$18{\cdot}25 : 36{\cdot}5 = 1 : x$$

$$x = \frac{36{\cdot}5}{18{\cdot}25} = 2$$

The specific gravity of the vapour of sulphide of mercury is 77·3, its equivalent being 100 + 16 = 116. The combining volume is obtained by the proportion:—

$$77{\cdot}3 : 116 = 1 : x$$

$$x = \frac{116}{77{\cdot}3} = 1{\cdot}5 \text{ or } 1\tfrac{1}{2}$$

Lastly, in the case of water, both the specific gravity of the vapour and the equivalent being = 9, it is obvious, without any calculation, that this latter corresponds to one volume of vapour.

The rule then would be:—The quotient obtained by dividing the equivalent by the specific gravity of the vapour, (both referred to hydrogen as unit,) represents the combining volume of the compound. This quotient should be 1, $1\frac{1}{2}$, or 2; its utmost excess over one of these numbers ought in no case to be greater than may be fairly attributed to unavoidable errors in the determination of the specific gravity of the vapour.

Let us apply this method of controlling the equivalent—or, what amounts to the same thing, the chemical formula—to the three compounds, the analysis of which has engaged our attention in the preceding lectures. The specific gravities of the vapours of benzoic acid, aniline, and benzol, have been found to be those given in the following Table, which likewise shows the equivalent at which we arrived:—

	Specific Gravity.	Formula.	Equivalent.	Combining Vol.
Benzoic Acid...	61·	$C_{14}H_6O_4$	122	$\frac{122}{61}=2$
Aniline	46·5	$C_{12}H_7N$	93	$\frac{93}{46{\cdot}5}=2$
Benzol	39·	$C_{12}H_6$	78	$\frac{78}{39}=2$

The volumes corresponding to these formulæ are represented by the quotient given in the last column of this Table. It is evident that the equivalents of benzoic acid, of aniline, and of benzol, correspond to two volumes of vapour; and hence the determination of the specific gravities of these substances affords additional evidence in favour of the formulæ, which we established by other means.

But suppose that, in the case of benzol, the true formula of this substance could not have been deduced in the manner in which it has been done; suppose that, unable to trace the origin of benzol, or to form products of decomposition, we had been compelled to verify the original formula (C_2 H) by the determination of the specific gravity of the vapour, what would have been the result of our experiments?

We should have found the specific gravity of benzol exactly as before—39; but, since the weight represented by the formula C_2 H would then have been only 13, the quotient ($\frac{13}{39}=\frac{1}{3}$) would have at once pointed out the improbability of the formula C_2 H. A combining volume $\frac{1}{3}$ not having yet been observed, we should have rejected the formula C_2 H, and should have multiplied by 6, so as to obtain C_{12} H_6, whereby the equivalent would be raised from 13 to 78, and the combining volume from $\frac{1}{3}$ to $\frac{1}{3}\times 6 = 2$, the combining volume generally observed.

Now that I have explained to you the manner in which the knowledge of the density of a vapour assists in establishing, or, at at all events, in testing, the formula of a compound, I will exhibit to you experimentally the several operations which are involved in taking the specific gravity of a vapour.

Let me remind you of the object of the experiment. We seek to find the weight of a certain volume of vapour; by comparing this weight with the weight of an equal volume of hydrogen, oxygen, or air, taken at the same temperature and at the same pressure, we obtain the density or the specific gravity of the vapour referred to hydrogen, to oxygen, or air, as units. In practice, the densities of vapours are generally compared with that of air; but the relation between the specific gravities of air and hydrogen having been ascertained with the greatest accuracy, a simple calculation is sufficient to translate densities, determined with reference to air, into densities referred to hydrogen as units.

There are two methods of ascertaining the specific gravities of vapours, which involve essentially different modes of manipulation. The one consists in accurately measuring the volume of vapour which a given weight of substance produces at a given temperature. It was originally suggested by Gay-Lussac, who employed it successfully in a great number of experiments. The second method proceeds in the opposite direction; it determines the weight of the vapour, which fills a vessel of given capacity at a given temperature. The latter process, for which we are indebted to M. Dumas, whose ingenuity first directed the attention of chemists to the importance of the density-determination of vapours, as a general method of research, is much simpler; it has, in fact, superseded the former one, at least for chemical purposes, being the only method at present practised in the laboratory.

The vessel used in this operation is a globe of glass, of from twenty to thirty cubic inches capacity, provided with a slender glass-tube. As these globes are always blown, they are apt to contain a certain quantity of moisture, and this has to be carefully removed. For this purpose, the vessel, surrounded with hot sand, is connected with an ordinary hand-syringe, and repeatedly exhausted, air

being admitted again from time to time through a chloride of calcium tube. We thus succeed in replacing the moist air in the globe by perfectly dry air. The tube is now heated before the blowpipe, and drawn out into a fine point, which is bent so as to form an angle of 90° or 100 with the remainder of the tube.

If this vessel be weighed, after having been successively filled with air and with the vapour, the density of which is to be determined,—if we succeed, moreover, in actually determining the weight and the capacity of the globe, it is evident that we have all the data which are necessary for calculating the specific gravity of the vapour.

We begin with weighing the globe, filled as it is with dry air upon an accurate balance. Let us suppose that the globe is found to weigh in this state 750 grains. This number represents the weight of the glass as well as that of the air contained in it. We have to recollect, moreover, that the weight of a given volume of air materially depends upon the temperature and pressure at which it is taken, and on this account we accurately observe the thermometer and barometer. I find that the temperature of this room is about 15·5° C. (60 Fahr.) The barometrical column I will, for the sake of simplicity, assume to be the normal one, that is, 30 inches.

The next operation we have to perform consists in introducing the substance under examination into the globe. This appears, at the first glance, rather difficult, on account of the extremely narrow orifice of the point, which is nearly capillary, but it may be readily effected, as you observe, by calling in the aid of atmospheric pressure. For this purpose, I heat the globe over a spirit-lamp, and in this manner expel a certain quantity of air. By now immersing the open point into the liquid which is to be introduced, (I will take benzol, the compound which has repeatedly engaged our attention,) the pressure of the atmosphere will force a certain quantity of the liquid into the globe as it cools, a process which may conveniently be accelerated by sprinkling ether over it. We thus readily succeed in introducing from 100 to 200 grs. of substance, the quantity necessary depending to a certain extent upon the capacity of the globe. The liquid is now heated to ebullition, when its vapour will gradually sweep out every trace of atmospheric air. The operation of heating is generally performed in a water bath, or in an oil bath, according to the temperature at which the substance under examination boils. In the case of benzol, which forms the subject of our experiment, the temperature of boiling-water is not sufficient. I have, therefore, slightly raised the boiling point of the water by dissolving some chloride of calcium in it. The water bath which I use is peculiarly arranged for this kind of operation. You observe it is a cylindrical vessel of copper, provided with two metallic stems, one on each side; one of these holds an arm with two rings, between which the globe may be fastened; to the other a thermometer is attached, which indicates the temperature of the bath. The vessel having been well secured between the two rings, I lower the arm and immerse the globe entirely in the boiling liquid, so that only the open point projects. After a few seconds, the liquid enters into ebullition, and torrents of vapour escape from the point. This you at once recognise by the hissing sound produced, and it may be made even more perceptible on bringing a spirit lamp to the orifice of the point, when the vapour will be set on fire. At first a mixture of air and benzol-vapour issues from the point, burning with a pale blue flame, but gradually the benzol-vapour begins to predominate, and the brilliancy of the flame shows you that the air is rapidly diminishing. After a few minutes, the quantity of gas escaping from the globe perceptibly diminishes, the flame becomes smaller and smaller, and is at last extinguished. If a taper held before the orifice burns quietly we consider that the excess of liquid is entirely expelled, and that the whole globe is filled with benzol-vapour of the temperature which is indicated by the thermometer of the bath. I observe at this moment 110° C. (230° Fahr.) The barometer, we will suppose, has not changed since last we observed it, which is generally the case, but should be carefully observed in accurate experiments. The point of the globe is now exposed to a powerful blow-pipe flame, and accurately sealed. A certain attention is necessary in this operation, on the dexterous performance of which depends the success of the experiment. After the whole of the liquid in the globe is converted into vapour, an accidental depression of the temperature of the bath has to be carefully avoided, as it would be followed by the introduction of a small quantity of air, which could no longer be entirely removed.

The globe is now taken out of the bath, carefully dried, and weighed again with great accuracy. Suppose it now weighs 758·36 grains. This number represents the weight of the globe itself, and that of the vapour at the temperature 110° C. (230° Fahr.), and 30 inches pressure.

It now only remains to ascertain the weight of the glass, and the exact capacity of the globe. These data are obtained by the following operation:—The globe being perfectly cooled, its point is immersed in mercury, gently touched with a sharp file and broken off, the whole operation being performed under mercury. The vapour being perfectly condensed into a liquid, the pressure of the atmosphere forces the mercury into the globe, and gradually fills it, if the operation has been successful. Sometimes a small space of the globe is not filled up. This shows that the air had not been altogether expelled, or that a small quantity had entered again by a slight depression of temperature during the operation of sealing. The experiment is not useless on this account, but an additional observation becomes necessary, and the calculation becomes more complicated. The globe being filled with mercury, the volume of this metal is now carefully determined by pouring it out into a graduated measure. Suppose we find that the volume of mercury amounts to 23 cubic inches; it is evident then that the capacity of our globe is 23 cubic inches, which must have been likewise the bulk of the air and of the vapour successively contained in this globe.

We have now all the data which are requisite for the determination of the density of benzol-vapour. In the first place, we calculate the weight of the glass globe alone. You recollect that our first weighing furnished us with the weight of this globe *plus* the weight of a certain volume of air of 15·5° C. (60° Fahr.) and 30 inches pressure. We have since determined the volume of this air; there is no longer any difficulty in calculating its weight. According to the latest researches of Regnault 100 cubic inches of 15·5° C. (60° Fahr.) and 30 inches pressure(a) weigh 30·83(b) grains. The weight of 25 cubic inches is, therefore $\frac{30{\cdot}83}{4} = 7{\cdot}7$ grains. By deducting this weight from the joint weight of the globe and of the air we arrive at the weight of the empty glass globe:—

$$750 - 7{\cdot}7 = 742{\cdot}3$$

And, lastly, by deducting the weight of the globe from the joint weight of the globe and of the benzol-vapour, we find the weight of 25 cubic inches of benzol-vapour of 110° C. (230° Fahr.) and 30 inches pressure—

$$758{\cdot}36 - 742{\cdot}3 = 16{\cdot}06$$

The experiment then has taught us, that 25 cubic inches of air weigh 7·7 grains, and that the same volume of benzol-vapour weighs 16·06 grains. Both volumes have been observed under the same pressure, but not at the same temperature. The air having been weighed at 15° C. (60° Fahr.), the benzol-vapour at 110° C. (230° Fahr.), it therefore remains now to calculate either the weight of 25 cubic inches of air at 100° C. (230° Fahr.), or that of 25 cubic inches of benzol-vapour at 15·5° C. (60° Fahr.) These calculations may be easily effected, the expansion and contraction of gases, as depending on variation of temperature, having been carefully established. Without entering into the detail of these calculations, which I could not clearly explain without diverging too much from the main subject of our inquiry, let me tell you, that 25 cubic inches of air at 110° C. (230° Fahr.), weigh 5·8 grains.

The specific gravity of the benzol-vapour is therefore found by the proportion

$$5{\cdot}8 : 16{\cdot}06 = 1 : x$$

$$x = \frac{16{\cdot}06}{5{\cdot}8} = 2{\cdot}77$$

And if it was our object to know the specific gravity of benzol with reference to hydrogen, we recollect that the number has to be increased in the same ratio in which the

(a) More accurately, 29·92 inches.
(b) More accurately, 30·82926.

specific gravity of air is higher than that of hydrogen. We have the proportion :—

$$0{\cdot}0692 : 2{\cdot}77 = 1 : x$$

$$x = \frac{2{\cdot}77}{0{\cdot}0692} = 39$$

which is the number quoted as representing the density or the specific gravity of benzol-vapour.

In the preceding sketch I have omitted to describe to you many of the minor precautions which have to be observed in order to insure the success of an experiment. I have, moreover, slightly modified the ordinary mode of calculation. But my task being to bring the main features of these questions before you in as intelligible a form as I possibly can, I have considered myself justified in sacrificing exhaustion of the subject to simplicity of design, and absolute accuracy to transparency of delineation.

ORIGINAL COMMUNICATIONS.

CASES OF HÆMORRHOIDS TREATED BY NITRIC ACID.

By WILLIAM COOKE, M.D., M.R.C.S.

Among the various methods of treating these troublesome and often serious affections, that by nitric acid is not uncommon, so that an apology for offering the following cases for publication appears due.

In June last, on meeting in consultation a surgeon of great eminence and extensive practice, it came out incidentally, that the patient had been a great sufferer from piles, and that they had been entirely removed by the application of nitric acid. The gentleman remarked, that he had, of course, read and heard of this mode of practice, but he had never adopted it, or seen it adopted ; and he sought an explanation of the mode of applying the acid, and of the effect it produced. This circumstance led me to think that the detail of a few cases of recent occurrence might not be uninteresting to some other practitioners.

Case 1.—In May, 1848, I was consulted by a gentleman, of a highly nervous temperament, relative to what he had considered a prolapsus of the rectum. The protrusion only took place on his having relief from the bowels, but he then suffered great inconvenience for a considerable time, the distress not ceasing until the protruded parts returned within the sphincter.

Taking a favourable opportunity for examination, I found that the protrusion did not consist of the bowel itself, but of hæmorrhoids, two of them the size of large walnuts, and one or two smaller. As the patient had to make arrangements to withdraw from important duties while under treatment, he wished a consultation, that the most decisive measures should be adopted. At this consultation it was suggested and agreed, that nitric acid should be applied.

May 18.—I directed that opening pills should be taken at bedtime, and an aperient draught early in the morning, for the purpose of bringing down the diseased parts as fully as possible. Having accomplished this, I applied strong nitric acid, by means of a mop of lint on the end of a slender wooden handle, mopping the surface of each pile fully. It was important to have ready, as had been suggested, some liquor potassæ and a dossil of lint, in the event of any acid touching the healthy skin. The pain, for a short time, was severe ; but, after waiting about a quarter of an hour, the parts were replaced by pressing them up with a compress of lint. An anodyne draught was given at bedtime, and a good night secured.

At the end of a week, I did not think the effect produced was sufficient. The piles were much hardened, as if blood had coagulated densely within them ; but some parts of the covering appeared to retain vitality. I repeated the application, and, as the parts were now less sensitive, I inserted a tenaculum, and drew them down more than at first. Although well mopped, the pain was not so severe as at first. An anodyne was given at night, and an aperient after the lapse of two or three days. A little sloughing took place, but very little pain was suffered. Soon nothing came down, and in about three weeks the gentleman considered himself well, and has continued so.

Case 2.—A stockbroker, about 48 years of age, who had suffered for some time from piles, which not only annoyed him by their protrusion, but they often bled copiously. He applied to me in the summer of 1848, and used various remedies without effectual relief. The affection was not nearly so severe as in the preceding case, but it was enough to make him exceedingly uncomfortable.

In October I applied nitric acid ; the pain was inconsiderable, and one application sufficed. He remained from business only two or three days, and had no return.

Case 3.—In May, 1849, I was consulted by a lady whose health had suffered greatly from external and internal piles of considerable size. They often bled, and frequently became inflamed, when, as usual, walking was attended with much pain. Some of these hæmorrhoidal swellings constantly existed, others protruded at the time of an evacuation of the bowels, and occasioned severe distress, until they were returned within the sphincter, and this was not unfrequently delayed for some hours.

This patient lived seven miles from town, but came to the house of a friend on the 24th of May, to receive my visit, and, considering the state favourable for an application, it was proposed to her. Although she consented it was with great terror, and, on the slightest touch, she made violent shrinking efforts, and drew the protruding portions beyond reach.

On the 29th she again came to town, and, having suffered but little pain from the preceding application, she had gained courage, and the circumstances were now favourable for a more extended application.

June 4.—The affection had nearly disappeared, but, as coming to town was inconvenient, the acid was re-applied, and, in a fortnight, I was informed that she was quite relieved.

Some pain, of course, attended each application, but it was of short duration; and, after waiting about ten minutes, the portion usually retained within the rectum was gently passed beyond the sphincter, and ease was experienced. The patient was not only relieved of local pain, but her long and severe suffering had acted powerfully on her general health, which now became good.

Case 4.—The Rev. Dr. G. had for many years been subject to hæmorrhoidal losses of blood. The loss at times had been rather profuse, and, being a weak and nervous man, and the hæmorrhage commencing when he was but a young man, it had contributed to prevent the development of physical energy. He became settled as pastor of a congregation, and married an interesting and amiable young lady ; but, although having a cultivated mind, and everything to make his position honourable and useful, yet a false conviction of moral inadequacy rendered him very unhappy. His morbid excitability, the weakness and perturbed state of his nervous system, extended to his conjugal life, and entirely prevented his enjoying it. Such was his nervousness, that he felt quite unable to consummate marriage, but he was subject to frequent emissions. He was a man of scrupulous moral propriety, was concerned for his wife's happiness, and, though fully aware that he suffered from physical causes, he grieved not only for himself, but for the amiable person to whom he had become united, and reproached himself severely for having married. He resigned his ministerial office, and opened a classical school; and, after a few years, he had gained a somewhat better state of health, and resumed the ministry. He still remained highly nervous, was a sufferer from his early enemy,—piles and occasional hæmorrhage,—and never could conquer his conjugal infirmity.

These melancholy details are premised for the purpose of showing to how great an extent the general system may suffer from the local affection in question; but the patient himself, in his prevailing tendency to indulge in self-reproaches, ascribed a good deal to the indiscretion of early puberty.

In 1849, when he was probably about 45 years of age, he consulted me in especial reference to his piles. I made examination immediately after he had passed fæces. The protuberances were of considerable size—two as large as walnuts before denuded of their green husk—others smaller, and a number of excrescences surrounded the anus. As he was then residing at a distant part of the country I proposed that he should take lodgings near me, in which he concurred.

On Oct. 20 I made the first application, mopping the surfaces well. The pain was considerable, but did not last long. As the disease had existed so long, and was so

considerable, the application was repeated twice at intervals of a few days. The pain lessened each time. Sloughing took place, accompanied with a dark and offensive discharge, and no protrusion now occurred. On the 30th I cut off the small pendulous excrescences, and in a few days he was quite well. He remained free from protrusion and hæmorrhage.

Case 5.—Captain B., of the merchant service, consulted me in March, 1850, respecting a severe dyspeptic state in which he had returned from a voyage of seven or eight months. He had suffered much on the voyage from constipation, want of appetite, debility, losses of blood per anum, and protrusion at the time of passing fæces. His appearance was very delicate, quite unlike that of the weather-beaten mariner. Attention was first directed to general treatment by aperients, bitters, and regulated diet, and by which, and the kind attentions of his wife, and the comforts of a well-regulated home, his health became much improved. On the eighteenth of March he discontinued medical treatment, except as to the occasional use of an alkaline aperient. It was agreed, however, that, before he started on another voyage, I should have an opportunity of examining what he called the "bowel coming down," from which he had loss of blood occasionally, and much inconvenience after each dejection. He was so busily occupied with the duties of his ship, that no appointment could be made until the 27th March, when, having taken an aperient medicine over night, I ascertained that the protrusion consisted of piles, two of them presenting on one side of the anus; their surface looked very irritable, and there was a slight sanguineous oozing from it. As all things were favourable, I applied the acid well to the surface of both the protuberances. The pain was severe for fifteen or twenty minutes, during which time the parts were allowed to remain external; then, by means of a compress of lint, I passed them into the rectum, and the pain subsided. An anodyne draught was given at night.

On the 28th I found him quite easy, and the bleeding and protrusion ceased. Very soon afterwards he started on his voyage, provided with instructions and means to counteract constipation and also bleeding, should it recur; but on his return, some months afterwards, he reported that he had suffered no inconvenience during the voyage; his bowels had generally been regular, and his health good.

Case 6.—A gentleman, about 36 years of age, married, and having a family, and engaged largely in business requiring activity, became the subject of what was considered prolapsus ani. Always after relief from the bowels he suffered considerably, and occasionally the protruding part became inflamed, when surgical assistance was required. He had been advised as to various plans of treatment, but none had been successful in curing the disease. At length the sphincter lost, to some extent, the power of controlling the parts, so that they would sometimes descend by a sudden muscular effort, and occasion great inconvenience. Under these circumstances, the patient had recourse to a supporter, the pad pressing rather strongly on the anus. The instrument was very well made, and answered its design, keeping the patient tolerably comfortable so far as exercise was concerned; but it was still a formidable thing to have relief for the bowels. On account of the proceeding it required, and the length of time during which uneasiness remained, it was usually sought in the evening, when business was over. Warm water and a soothing or astringent lotion were required. The protruded part was sometimes irritable, and not unfrequently bled. It was often necessary to wait a considerable time before the part could be returned, and the instrument applied.

I had known for some years of the existence of this gentleman's trouble, but was not specially consulted about it until 1851. At the end of July he requested my advice. It was not in this case necessary, as in some others, to give opening medicine to bring the offending parts into view, for, on the removal of the instrument, a little straining brought them fully down. The surface of the protruded part was nearly as large as the palm of the hand,—three, if not four inches in diameter,—made up of a cluster of hæmorrhoids,—some large, others small; some parts red, and others livid. The mass stood out prominently. In its inequalities and form it gave me much the idea of a large love-apple. The gentleman was willing to undergo any measure I would recommend, and had familiarised himself with the means commonly used in the extirpation of these affections,—viz., excision, ligature, and caustic,—and required me to discuss with him the advantages and disadvantages of each. For reasons it is needless to detail, the latter form of treatment was preferred.

On the 1st of August, with the aid of my son, Dr. W. M. Cooke, the nates being well separated, I applied very concentrated nitric acid to the whole surface. The pain was very severe, of course, and continued for 15 or 20 minutes. I then carefully returned the parts, and the patient went to bed and took an opiate. His bowels remained quiet for two or three days, and on having relief only a small protrusion occurred. On the 6th, he took a rhubarb and magnesia draught, and some sloughy and bloody matter accompanied the motion. Slight irritative fever with sickness ensued, and was relieved by effervescing medicines. At about the end of a week there was considerable discharge, and for two or three days slight erysipelatous inflammation surrounded the anus; poultices were applied. At the end of a fortnight acute pain was felt beneath the point of the sacrum and coccyx, and after a day or two a swelling presented at the posterior part of the anus. Fluctuation became perceptible, and the swelling was punctured, and there flowed out about two ounces of a most offensive mixture of pus and blood. Tonics were now prescribed. The discharge from the abscess continued for two or three days, gradually losing the fetid odour. From this period no inconvenience, except debility, was suffered. At the end of the month the gentleman went to Dover, partly to expedite the recovery of strength, but in part to superintend works in progress. No inconvenience has since been suffered, and, of course, as there was the non-necessity of artificial support, the use of the instrument was most gladly avoided.

Some doubt has been entertained whether the acid acted by coagulating the blood in the pile, or by producing sloughing of the coats. In the more severe of the preceding cases, it was evident that partial destruction took place; in the milder cases that result was doubtful, in consequence of there being no opportunity of subsequent examination.

39, Trinity-square, City.

THE LONDON
PRACTICE OF MEDICINE AND SURGERY.

Cases of Cancer of the Breast.—(Continued.)

KING'S COLLEGE HOSPITAL.

Excision of Cancer of the Breast ..... Mr. Partridge.

ST. BARTHOLOMEW'S HOSPITAL.

Cancer of Breast in Early Life ..... Mr. Lloyd.
Cancer of the Breast in a Man ..... Mr. Paget.
Circumscribed Cancer of the Breast ..... Mr. Lawrence.
Cancer of the Breast after Excision of Innocent Tumour ..... Mr. Stanley.

KING'S COLLEGE HOSPITAL.

SCIRRHUS CANCER OF THE BREAST.—EXCISION. RECOVERY.

[Under the care of Mr. PARTRIDGE.]

NOTWITHSTANDING all the labour which has of late been bestowed on the investigation of malignant diseases, the questions involved in the decision as to the propriety of excising cancerous breasts are yet far from being set at rest. While by most recent authors the operation has been either altogether condemned, or advocated with extreme timidity, it yet continues to be one of the mos frequent which we witness in the theatres of the metropolitan hospitals. Within the last month, at St. Bartholomew's, Mr. Lawrence has removed no less than four breasts for this disease. We do not intend, at present, to attempt the exhibition of any facts on either side of the argument, though at some future time we hope to do so. Our main reason for quoting the following case is for the sake of illustrating a difference in the practice now pursued in regard to the stage of the disease in which the operation should be done:—

Ann Killon, aged 40, a widow, married sixteen years, but never pregnant, with no known hereditary predisposition to cancer, was

admitted July 20, 1853. In the outer part of her right breast was a small circumscribed mass of stony hardness, unattached to either skin or deep fascia. She had known of its existence for fifteen months, during which time it had slowly increased, without ever occasioning any very severe pain. She was apparently in good health, being stout, though rather flabby and pallid. Mr. Partridge remarked, that if any cases were suited for the operation, this appeared to be one. On the 24th, he accordingly excised the whole gland, by an elliptical incision directed perpendicularly. The tumour proved to be genuine scirrhus. The wound healed favourably, and on August 16 she left the hospital quite well.

It will be seen, that the rule here acted upon is that adopted by almost all who sanction the use of the knife,—viz., that the operation cannot be done in too early a stage. A few weeks afterwards a woman was admitted into St. Bartholomew's Hospital, under Mr. Stanley's care, for cancer of the breast, in exactly the same condition as was the above. She had, however, suffered no pain whatever. A consultation was held, in which Mr. Paget urged, that statistics had proved that the average length of life was less in cases operated on than in others, and that, consequently, the only benefit derivable from excision was the relief of pain. In the present case there was none to relieve; and, seeing that cancers do not unfrequently remain inactive and painless for considerable lengths of time, he judged it better practice not to risk the hastening of the catastrophe by a needless operation, but to wait until it was urgently required in order to secure the comfort of the patient. Mr. Stanley acquiescing in this line of argument, the woman was allowed to return home, with directions to apply again when the tumour got worse. Without venturing to offer any opinion on the practice pursued in these cases, we cannot leave the subject without just remarking respecting late operations, that we have repeatedly witnessed the most happy results from them, as far as the complete though but temporary removal of pain is concerned.

ST. BARTHOLOMEW'S HOSPITAL.

SCIRRHUS OF THE BREAST AT AN UNUSUALLY EARLY AGE.

[Under the care of Mr LLOYD.]

Cancer of the breast, as is well known, is seldom met with under the age of thirty, being peculiarly a disease of middle and advanced life. If younger persons become the subjects of cancer, it is almost always of one of the other forms, medullary or melanotic, very young children suffering almost exclusively from one form of malignant disease, and in one locality, viz., medullary cancer of the eye. At and after the age of puberty, the bones, the testis, and the glands, become the organs most liable to its attacks, its kind being still the same. The liability of different parts to be its seats in different periods of life, and the preference of some forms of cancer for one age, and of others for another, are important facts in the natural history of the disease; but no satisfactory explanation of their causes can be given in the present state of our knowledge. The following case, in which scirrhus of the breast appeared at the age of twenty-six, is worthy of being borne in mind, although instances have been related of its occurrence at much earlier periods. We record it with the more pleasure, because the correctness of its diagnosis was placed beyond the possibility of a doubt by the result of a microscopic examination—a recommendation which unfortunately does not apply to all the cases which are cited as facts in the statistics of cancer. Mr. Lloyd's patient is a married woman, in comfortable circumstances, of light complexion, and very clear skin. There is no known history of malignant affections in her family. She is now aged twenty-eight, and it is a year and a half since she first perceived a hard tumour in the right breast. It increased in size, retracted the nipple, and four months ago began to be affected with severe darting pains. There is no history of any injury to the part, or of any special diseases, local or constitutional. She is the mother of two children; the youngest of whom is five years old, and since his birth she has had numerous abortions, all of them attended with profuse hæmorrhage. Menstruation has always been regular, excepting during pregnancy and lactation. She does not think that she has lost much flesh or strength since the appearance of the disease, but admits that she has grown paler, attributing it to anxiety and continued fretting about her complaint. Mr. Lloyd has excised the whole gland, and the wound is now all but healed. The growth had previously involved the skin, and was just commencing to ulcerate. Portions of it were submitted to microscopic examination, both by Mr. Lloyd and Mr. Paget, neither of whom felt the least doubt as to its true nature.

SCIRRHUS CANCER OF THE MALE BREAST.—EXCISION. RECOVERY.

[Under the care of Mr. PAGET.]

GEORGE READ, aged 48, a tall, stout man, of lymphatic temperament, and from boyhood a sufferer from spasmodic asthma, was admitted on August 20, 1852. In the preceding February, he had noticed a very hard tumour in the right breast, immediately below the nipple. Since that time it had steadily increased in size, and become the seat of severe lancinating pain. Within the last month the glands in the right axilla had enlarged. The growth on the chest was now a large flattened mass, about three inches across, which adhered closely to the skin, but was slightly movable on the thoracic parietes. It was of stony hardness, and had a nodulated border. Physical examination of the chest disclosed the existence of extensive emphysema. There were deficient respiratory sounds, with very clear percussion-note in all parts. His breathing was short and laborious.

On August 28, Mr. Paget excised the whole tumour, and also several of the axillary lymphatic glands which were enlarged. Microscopic examination confirmed the opinion previously formed as to the nature of the disease.

On the day after the operation, the patient had a return of his asthmatic complaint. His respiration became heaving and extremely difficult. Inspiration, soft in the commencement, sibilant towards its termination. Expiration attended by a loud growling rhonchus. Pulse of moderate volume; soft, 86; tongue clean and moist. The wound did not, during this condition of things, proceed very favourably; its edges became inflamed, and surface sloughy. Mr. Paget ordered the application of twelve leeches to the chest, from which much relief was experienced. In the course of a few days the paroxysm of asthma passed off, and the wound then took on a healthy action, and healed favourably. This man knew of no family predisposition to malignant disease, nor had he ever received any injury to the part. The disease appeared to have commenced quite spontaneously, and its interest lies in the fact, that, contrary to the common rule, it attacked an organ which, instead of being the seat of active changes, was probably the most rudimental and atrophic in the whole body. We do not know how it may have been with other observers, but to ourselves it has occurred several times to meet with cancer in persons who had for long been the subjects of advanced emphysema.(a) Should this prove to be a general fact, it is not without its interest in relation to phthisis, between which and cancer a certain degree of antagonism would appear to exist. It is well known that in conditions involving the continuance of the circulating fluid in a more or less unnaturally venous condition, tubercle is but rarely developed. Morbus ceruleus and advanced emphysema furnish us with the best examples of the state alluded to; and should it be shown that these affections predispose to cancer, the inference would appear to be fair that the production of tubercular and malignant deposits respectively is favoured by opposite states of the blood.

CIRCUMSCRIBED CANCER OF THE BREAST.—EXCISION. RECOVERY.

[Under the care of Mr. LAWRENCE.]

Let us now say a few words on the diagnosis of scirrhous cancer. A tumour with nodulated borders, of stony hardness, attaching itself to the skin and subjacent structures, of slow growth, and attended by sharp stabbing pains; such are its more or less constant characters. In addition to them, the peculiar cicatrix-like appearance of the attached skin may be mentioned, and other symptoms peculiar to certain localities, as retraction of the nipple, when seated in the mammary gland. After removal, scirrhus may be known by its hardness, cutting with a crunching feel, by its surface being either flat or cupped, never convex, exuding plentifully a creamy juice, which readily forms an emulsion when mixed with water. The appearance of its section is often well designated as "apinoid," or pear-like, for it much resembles a portion of an unripe seedy pear, being partly opaque, partly semi-transparent, covered with small yellow points, and crossed by whitish bands of tissue. It is generally very firmly connected with the surrounding parts, having, as it were, grown to them, and is not encased in any kind of capsule. All these characters are, as we shall presently see, inconstant, and some of them may be closely simulated by non-malignant structures. M. Lebert lays great stress on the cancer *succus*, which he regards as all but

(a) Mr. Hilton's case, recorded last week, was another example of this conjunction.

pathognomonic in itself. A specimen was brought to us for examination a week ago, which we should have liked to have seen diagnosed by this character. It was a softish tumour, nearly white in most parts, but here and there showing small spots of ecchymosis, and larger ones of acute congestion. On scraping it, juice exuded plentifully, of a cream-like consistence, and easily miscible with water. Placed under the microscope, it was seen to contain abundance of *pus* cells. The mass was, in fact, a gland, acutely inflamed, softened, and infiltrated with pus, which latter had not collected itself into anything like visible cavities. We have no wish to discredit this most valuable sign, but only desire to show that it is far from infallible. Nor is there one among all the characters of malignant growths on which singly and alone a diagnosis may always be built. A cancer may be juiceless, and composed of fibrous structure; it may be a pulpy congeries of feebly-adherent cells or cell nuclei; it may, perhaps, go beyond this, and in some very rare instances present no evidence, microscopic or otherwise, of either cells or fibres.

The following case is a good example of a scirrhus tumour of the breast, differing widely from what is usual in typical cases, and affording a very striking contrast to the case of "Diffused Cancer," which we placed on record in our preceding report:—

Elizabeth Leazer, aged 57, unmarried, observed, four months ago, in her left breast, a little to the outer side of the nipple, a hard tumour the size of a nut. Menstruation had ceased eight months previously. She was at the time in tolerable health, but had suffered much from indigestion in younger life. A maternal great aunt had died of cancer of the breast. As the tumour gave her little pain, she did not seek for advice at first; but, on its continuing to increase, she became alarmed, and, accordingly, on February 1, consulted Mr. Lawrence respecting it. The lump was then the size of a nutmeg, very hard, but freely movable in the breast; it had retracted the nipple. The woman thought she had lost health since its appearance; and stated also that it had much disturbed her rest. Mr. Lawrence explained his opinion as to the nature of the tumour, and advised its removal, to which she consented. On February 5th, the whole breast was excised under the influence of chloroform. The section of the mass presented, after removal, the following characters:—It was nearly smooth, or, if anything, a little convex, of a glistening, semi-transparent appearance in most parts, with grey and yellow spots freely interspersed. With a little trouble, it might have been enucleated from the thin cellular envelope which surrounded it. No white bands could be seen crossing it in any direction. It cut with a kind of crunching sensation; but, when scraped, yielded little, if any, juice; but continuing the process, however, minute fragments were broken off, which, when mixed with water, and carefully disintegrated, were found to be composed of cells such as here shown.

We must note, that with water no emulsion was formed; but after the most persevering mixing, many small masses remained very visible to the naked eye. Mr. Lawrence had remarked, in the operating theatre, on examining the mass, that he did not feel quite so certain of its malignant nature as he had done before the operation. He pointed out the main features in which it differed from ordinary scirrhus, and stated, that the decision must be left with the microscope. As will be seen, the evidence afforded by that instrument was of the most conclusive character; not, however, to award it undue credit, we must say, that the naked-eye appearances, despite the anomalies mentioned, constituted a *tout ensemble* so suspicious, that neither Mr. Lawrence nor any who saw it could feel very much in doubt.

FIBRO-PLASTIC TUMOUR OF THE BREAST.—EXCISION. APPEARANCE OF SCIRRHUS CANCER IN THE CICATRIX.—SECOND EXCISION.

[Under the care of Mr. STANLEY.]

Mary Noble, now aged 50, an unmarried woman, of dark complexion, was admitted five years ago, under the care of Mr. Stanley, for the purpose of having removed from the outer part of her left breast a solid tumour, the size of a hen's egg, of the existence of which she had known for the previous six months. She had discovered it quite accidentally, when as large as a walnut, and had since experienced some pricking pain in it; but, as she had been diligently applying various reputed discutients, it was doubtful whether the sense of soreness might not be fully as much due to them as to the tumour itself. The latter was embedded in the border of the gland, and did not involve the skin. Mr. Stanley excised the tumour, together with some of the adjacent structures, which adhered to it; but, as the disease was not thought to be malignant, he did not consider it necessary to remove the whole breast. The after examination proved the correctness of the opinion, the growth being a good example of what Lebert has described as "the fibro-plastic tumour," and on the distinctness of which from true cancer he has so well insisted. It was a circumscribed roundish mass, of a dull white colour in most parts; in others discoloured by interstitial extravasation of blood.

Through the kindness of Mr. Paget, we have been permitted to copy the accompanying illustration of its component cells from a drawing taken at the time. In several of the cells the peculiarities of those diagnostic of this disease are extremely well shown. In order fairly to exhibit these, they have been drawn to a very large scale; and, although taken from nature, must be regarded as somewhat diagramatic. Respecting the usual form, size, etc., of fibro-plastic cells, we extract the following from Mr. Paget's Lectures before the College of Surgeons, where they are described as "large, round, oval, or flask-shaped cells, from $\frac{1}{800}$ to $\frac{1}{1000}$ of an inch in diameter, which contain from two to ten or more oval, clear, and nucleolated nuclei, embedded in clear substance."

We now pass on to the subsequent history of the patient. She recovered from the operation, and remained in perfect health for more than two years, at the end of which time she began to experience a little pricking pain in the cicatrix, which, after the lapse of a very considerable period, became attended by some induration immediately beneath that part. The symptoms produced were, however, very trivial, and she did not seek advice until March 4th of the present year, when she was again admitted, under the care of Mr. Stanley. Mr. Stanley discovered, just under the scar, some very firm and knotty-feeling indurations, which were painful when pressed, and, even when not interfered with, were stated to be the seat of lancinating pain. The patient had lost her health considerably, and was pale and peculiarly sallow. On March 5th, in the presence of Mr. Lawrence, Mr. Paget, and others, Mr. Stanley made a free incision into one of these small lumps; and the appearances presented having satisfied all as to their malignant nature, he proceeded to excise the whole gland, with the cicatrix and adjacent skin. The cut surface of these masses, which were about the size of large horse-beans, exactly resembled that of true scirrhus. They were firmly united to the surrounding tissues, of gristly hardness, and yielded freely a creamy juice, which formed an emulsion with water. Microscopic examination of the latter showed the appearances here delineated.

One of the most interesting facts connected with this case remains to be told: there is proof of family predispostion to malignant diseases, for the patient whose history will be found below, and whose breast has recently been excised for cancer, is sister of the present subject. They are not, however, aware that any of their other relatives have ever been similarly affected.

It will be seen, that neither the above, nor the case from St. Thomas's related last week, afford instances of the conversion of innocent growths into cancer, but merely of the development of cancer in the scars left by operations. They thus differ in no material respect from the numerous ones already recorded in proof of the influence exerted by wounds and other injuries in inducing the outbreak of that disease. We believe that, in several such examples of traumatic cancer, Mr. Paget has been able to discover evidence of hereditary predisposition to the disease, and his hint, that such very commonly exists, is one too valuable to be lost sight of by future observers. It is unnecessary for us to comment on the extreme rarity of fibro-plastic tumours of the female breast. It is a question in the present case of no small interest as to how far that peculiar and ill-understood growth might be taken as proof of an incipient constitutional bias, which would find its complete development in the malignant diathesis.

SCIRRHUS OF THE BREAST.—EXCISION.—RECOVERY.

[Under the care of Mr. STANLEY.]

Henrietta Noble, aged 42, of lymphatic temperament, stout and pale, was admitted on Jan. 11th; and on Jan. 14th Mr. Stanley excised her left breast, which contained a mass of scirrhus cancer, of well-marked characters, about the size of a walnut. She is un-

married, and has always menstruated regularly. About two years ago she received, from a child which she was nursing, a sharp blow on the breast, and a year afterwards her attention was excited by the frequent recurrence of darting pain in the part, and she discovered a little lump the size of a bean. It had of late been subject to severe pain, which had often kept her awake at night. At the time of the operation it had begun to adhere to the skin, but the latter had not ulcerated. As we have already stated, this patient is sister to the subject of the preceding case. They are now inmates of the same ward.

GUY'S HOSPITAL.

TREATMENT OF CHRONIC ABSCESS OF THE BREAST AND MILK FISTULÆ.—EMPLOYMENT OF IODINE INJECTIONS.

[Cases under the care of Mr. BIRKETT.]

We have been much gratified by watching the result of the treatment pursued by Mr. Birkett in several cases of chronc inflammation of the breast, attended with sinuses and long-continued suppuration, which have recently been under his care. This form of disease, as the result of neglected milk abscess, falls, we have no doubt, pretty frequently under the observation of most of our readers, and is often very troublesome to cure. The breast becomes affected with solid œdema, the sinuses, usually running in several directions through and behind the gland, are most difficult to close, and, by the constant discharge from them, the patient's powers become much undermined. In an extreme case of this description, which had lasted for many years, we not long ago saw Mr. South perform excision of the whole diseased mass, believing that to be the shortest method of getting rid of a useless part, which had become a serious evil to the patient. The remedies usually employed, are, as it is well known, support to the part, and the laying open freely of the sinuses, or the injection of them with various irritating fluids. Mr. Birkett's treatment consists in the employment of iodine taken internally, applied as an ointment over the tumour, and used also as an injection for the sinuses, whilst at the same time the part is carefully supported and subjected to gentle pressure by means of a bandage. The power of iodine, as a means of exciting the absorption of inflammatory products is well known; and, as an application to the lining membrane of sinous abscesses, it has for some time been employed on the Continent, and, less generally, in this country also. The success which has attended Mr. Birkett's method of treatment has been, as the following case will show, most encouraging.

Elizabeth Wiles, aged 26, the wife of a farm labourer, was admitted January 6th, 1853. Three years ago, while suckling, she suffered what from her description would appear to have been an attack of acute inflammation, both of the left mammary gland and of the surrounding structures. Her child was then eleven months old, and the disease appeared to have been excited by inflammation of the lymphatics of the arm from a sore on the finger. It was so severe as to confine her to bed for ten weeks, and to necessitate the employment of great numbers of leeches. It ultimately subsided considerably without having occasioned any abscess. The swelling, however, never quite disappeared, but after a time it again began to increase; and, a year subsequent to the first attack, a large chronic abscess had to be opened, which never afterwards healed. In September, 1852, she was again confined. The disease of the breast having resisted the persevering treatment of several practitioners in the town where she lived, and her constitutional powers being evidently very much reduced by the long-continued and profuse discharge of pus which it produced, she was ultimately recommended to come up to town, in order to have Mr. Birkett's opinion as to the propriety of excision. On admission, she was emaciated, and of a somewhat hectic appearance; the discharge from the sinuses was very profuse, and the whole breast much indurated. She was then suckling with the right breast.

Mr. Birkett advised her to wean her infant, and ordered her to be confined to bed, with a poultice over the part for a few days, until the state of excessive irritation which appeared to exist had somewhat subsided. He then prescribed for her the following mixture:—

℞ Potassii iodidi gr. iij., infus: gent. ℥i., ter die sumend.

The breast to be wrapped in lint spread with ung. plumb. iod., and the whole supported by a bandage carried round the shoulder.

On the 23rd, the symptoms having already begun to amend, the injection of all the sinuses with the tincture of iodine (London Pharmacopœia) was performed by means of a tube carried to the end of the sinus. The treatment as above was persevered in, and after the expiration of a week the injection was repeated, and again after another space of two weeks. At present, March 15, the sinuses are quite healed; the gland has been reduced very nearly to its natural size, and the patient has gained in general health to a point beyond what she has enjoyed since the commencement of the disease. With the exception of the first few days, she has been allowed to be out of bed the whole time, and full diet has been allowed her. On each occasion that the injection was used, it produced considerable smarting pain, and was followed by a temporary increase of swelling and discharge, which very quickly subsided.

We scarcely need point out the advantages of the above plan of treatment over the old method of laying open the sinuses. In the latter the incisions have to extend wide and deep, and they involve considerable hæmorrhage, and for a time increased constitutional irritation and great discharge of pus. Other cases of a similar nature lately under Mr. Birkett's charge, in which the iodine cure has been practised, were the result of common milk abscess, from which the above, as will be seen, differs in some particulars.

Prevention is better than cure, and, as we believe there are few diseases more thoroughly within the reach of prophylactic measures, than is milk abscess, we cannot dismiss the subject without saying a few words on that head. The history of this disease is in most cases easily told. A woman of delicate skin is confined, perhaps for the first time; lactation commences, the cuticular investment of the nipple, irritated by the mouth of the child, becomes cracked and fissured, each application of the infant to the breast occasions torment to the mother, and she avoids it as much as possible. The child is allowed to suck only on the sound side, the milk accumulates in the other breast, and slight inflammation is set up, to be aggravated by the increasing dread on the part of the patient of the natural method of relief, the evacuation of the milk. An abscess is the result. Now, how was all this to be avoided? In most cases pregnant women consult their medical advisers on sundry little points some time before their confinements. Let him on those occasions inquire as to the state of the nipple; and should the skin be found to be delicate, the daily application to the part of an alum wash, decoction of oak bark, or some other astringent, should be recommended. By such means the skin may be hardened, tanned in fact, and rendered just as capable of resisting irritation as that of the finger. In other cases milk abscess depends on the non-development of the nipple. The surgeon should take care that a shield be provided beforehand, and that his patient knows how to use it properly.

But, supposing that, with the greatest care, abscess has proved unavoidable, there are still measures by which the disease may be prevented from passing into the deplorable condition in which we have noted that the patient in the above case came into Mr. Birkett's hands. We have repeatedly heard Mr. Paget observe, that, among his out-patients at St. Bartholomew's, he never has any opportunity for trying the various vaunted injections for the cure of sinuses in the breast, because the latter always heal of themselves. We have very carefully watched Mr. Paget's practice, in which mammary abscesses are very common, and can most fully confirm this statement. His treatment consists in the free evacuation of all collections of matter, and in the internal exhibition of tonics. A generous diet of meat and beer, with full doses of quinine or iron,—such are the remedies under which improvement in the local and general condition of the patient seldom fails to become rapidly manifest. It must, however, be admitted that the applicants, as out-patients, do not include a small class of peracute cases in which the symptoms are often too severe to allow of the patient's leaving her bed. The systematic avoidance of antiphlogistic measures in the treatment of local suppurative inflammations is daily becoming more and more common, and in no respect has modern practice more strikingly advanced than in this. It affords, too, a good illustration of the application of minute pathological research to actual every-day practice. Those of our readers who had the good fortune to hear Mr. Paget's lectures on inflammation, delivered before the College of Surgeons three years ago, will remember how unwillingly the Professor admitted the existence of any increase in formative power in that condition. This view, founded as it was on theoretic reasoning, and microscopic observation of the process, has since been advocated by other pathologists, including some of the German school, and it is interesting to observe how, upon empirical recommendations merely, the line of practice which it would suggest is rapidly coming into vogue.

SCIENTIFIC LECTURES.

HUNTERIAN LECTURES ON THE ANATOMY AND PHYSIOLOGY OF FISHES AND REPTILES.

By RICHARD OWEN, F.R.S.,
Hunterian Professor to the College.

THIS DAY, APRIL 2.—Lecture VII.—Neurology of fishes. Simple neural axis of Lancelet. Natural division into "brain" and "spinal marrow" in other fishes. Characters of medulla spinalis or "myelon," myelonal ganglia and canal. Four primary segments of Brain:—*Epencephalon*, including the medulla oblongata and cerebellum; *Mesencephalon*, including the third ventricle, optic lobes, hypoaria, hypophysis, and conarium; *Prosencephalon*, including cerebral crura and hemispheres; *Rhinencephalon*, including olfactory lobes and their crura. Membranes of the neural axis. Homology and physiology of the primary divisions of the brain.

TUESDAY, APRIL 5.—Lecture VIII.—Nerves of fishes. Branchial nerves of warm-blooded Scomberoids. Organ of smell. Organ of Sight. Organ of hearing: its connexion with the air-bladder. Electric organs in *Torpedo;* in *Gymnotus*: experiments of Matteucci and Faraday. Analogies of the action of electric organs to that of voluntary muscle.

THURSDAY, APRIL 7.—Lecture IX.—Digestive system of fishes. The teeth: their number, form, situation, attachment, substance, chemical composition, structure, development, and reproduction. The mouth: anterior and posterior jaws; irritable palate of Cyprinoids. Œsophagus. Modifications of stomach. Regurgitation and rumination of fishes. Intestines, small and large; spiral valve, its final purpose in Sharks. Peritonæum, its outlets: mesogastry and mesentery. Variable situation of cloacal outlets. Coprolites.

SATURDAY, APRIL 9.—Lecture X.—Accessory glands of the digestive system: Pancreas; its progressive development; its co-existence under two forms in certain fishes; conditions of its absence in other species. Liver and gall-bladder: gall-ducts. Spleen. Lacteals and lymphatics. Lymphatic heart. Veins. Hepatic sinuses. Portal system and portal heart. Branchial heart: its structure, homology, and analogy in fishes. Auricle, ventricle, and bulbus arteriosus. Pericardium.

LIST OF SCIENTIFIC MEETINGS.

This Evening, April 2.—MEDICAL SOCIETY OF LONDON.—*Subject:*—"On the Impropriety of Tracheotomy in Epilepsy and in Affections allied to Epilepsy." By Dr. RADCLIFFE. Eight o'Clock.

Monday, April 4.—ROYAL INSTITUTION.—*Subject:*—"On Organic Chemistry." By Dr. A. W. HOFMANN. Four o'Clock.

Tuesday, April 5.—ROYAL INSTITUTION.—*Subject:*—"On Animal Physiology." By T. WHARTON JONES, Esq., F.R.S. Three o'Clock.

——— ——— PATHOLOGICAL SOCIETY OF LONDON. Eight o'Clock.

Wednesday, April 6.—ROYAL INSTITUTION.—*Subject:*—"On Organic Chemistry." By Dr. A. W. HOFMANN. Four o'Clock.

——— ——— GEOLOGICAL SOCIETY.—*Subjects:*—1. "On the Geology of Busaco, Portugal" By Signor C. RIVIERO, and D. SHARPE, Esq., F.G.S. 2. "On the Granitic District of Inverary, Argyllshire." By the Duke of ARGYLL, F.G.S. 3. "Notes on Two Sections through Parts of North and South Wales, etc." By Professor A. C. RAMSAY, Esq., F.G.S. Half-past Eight o'Clock.

Thursday, April 7.—ROYAL INSTITUTION.—*Subject:*—"On Technological Chemistry." By Dr. E. FRANKLAND. Three o'Clock.

——— ——— HARVEIAN SOCIETY.—*Meeting of Council.* Half-past Seven o'Clock.

Friday, April 8.—ROYAL INSTITUTION.—*Subject:*—"Observations on Different Modes of Educating the Blind." By Rev. W. TAYLOR. Half-past Eight o'Clock.

Saturday, April 9.—ROYAL INSTITUTION.—*Subject:*—"On Static Electricity." By Professor FARADAY. Three o'Clock.

——— ——— MEDICAL SOCIETY OF LONDON.—*Subject:*—"On Chronic Rheumatic Arthritis." By Mr. CANTON. Eight o'Clock.

LORD LYTTELTON'S VACCINATION BILL.—All children born after Aug. 1, 1853, to be taken by parents and guardians to public vaccination, or duly-qualified practitioner, within six months, who shall vaccinate said child gratis, except fee paid by public. Certificate of successful vaccination to be given and be evidence. Guardians or overseers to keep a register of persons successfully vaccinated. Child sickening under process to be attended by Medical officer or practitioner without fee or reward.

DRUNKENNESS AND ITS TREATMENT IN CLONMEL.—The *Limerick Chronicle* says, that every person committed to Clonmel gaol for being drunk in the streets, is immediately submitted to the operation of the stomach-pump, and for this the apothecary of the prison receives as his fee 7s. 6d.

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Medical Times & Gazette.

SATURDAY, APRIL 2.

THE NEW MEDICAL REFORM BILL.

WE publish, at p. 352, an account of the interview which took place on the 18th of March between the Deputation of the Provincial Medical and Surgical Association and the Secretary of State for the Home Department. The answer given by Lord Palmerston was, as is usual in such cases, reserved and cautious, nor can it be distinctly gathered from his speech whether the Government do or do not intend to bring forward a measure of Medical Reform during the present session.

Our own opinion upon the present measure has been so frequently expressed, that it is almost unnecessary for us to repeat, that we think it quite inadequate to meet the demands of the medical public. We have given, and we still give, all credit to the promoters and the framers of the Bill, and we are fully conscious of the high respectability of the Association from which it emanates. But in attempting to please all parties, the result has been what might have been anticipated,—namely, that none has been satisfied, and the main proposition of the Bill, which is to produce uniformity of education and qualification throughout the Profession, is evidently nothing else than a mere form of words. For while the Medical and Surgical Association is impressing upon the Government the necessity of introducing a Bill which is to include within its comprehensive provisions all classes of the Profession, the College of Physicians and the College of Surgeons are separately at work in obtaining new Charters for their respective corporations, the objects of which are certainly not to amalgamate the Profession into one body, but to draw more clearly the lines of separation between its different sections. The Colleges have always possessed, and still retain, the confidence and the favour of the Government, and we entertain very little doubt, that the College of Physicians, at least, will obtain the measure for which it is now applying, and by which measure it will materially augment its numbers, extend its influence, and improve its finances.

But the College of Physicians does not propose to abolish the distinction which exists between the Physician and the Surgeon, or between the Physician and the General Practitioner; nor do we apprehend that the College ever contemplated the fusion of all systems of medical education in the crucible of the Medical and Surgical Association. What the College of Physicians intends to do with the General Practitioners we do not know, as no opinion upon the matter has ever reached us; nor, so far as we know, has any been expressed. We are, therefore, left to conclude, that the College will leave the General Practitioners to fight for themselves.

The College of Surgeons has long been distinguished for its utter disregard of the great mass of the Profession; and, although encouraging very laudably the study of surgery as

an exclusive science, it has ever shown itself quite indifferent to the wants, and utterly deaf to the complaints, of that large portion of our fellow-practitioners, who constitute about nine-tenths, if not more, of the medical attendants of the community.

Now, the Bill of the Medical and Surgical Association, while professing to be founded upon large and liberal principles, sweeps away every vestige of representative government from the ranks of the Profession; and while the Colleges are to be strengthened in their privileges and confirmed in their rights, the General Practitioners will be deprived at once of any rights or privileges whatever. They are to be handed over wholesale to the Regius Professors of Oxford and Cambridge, to the College of Physicians and the College of Surgeons, and to other parties, none of whom, so far as we have learned, has ever evinced the slightest regard for the scattered multitude of homeless wanderers, who are thus unceremoniously to be thrust upon them.

But, while the main features of the Bill are so objectionable, and its principles so antagonistic to those objects for which the Profession has been manfully struggling through a long series of years, the details of the measure are needlessly minute, and must give rise in their practical operation to endless dispute and litigation. One of these objectionable provisions is clearly pointed out by our Correspondent Dr. Melhuish, whose letter is published in the present Number. The educational part of the measure, which might have been safely left to the future Council, is unnecessarily defined, for systems of education must vary with the circumstances of the times, and those systems which are useful and expedient at one period may be useless or pernicious at another; and we may further remark, that, in the previous qualifications demanded from candidates for the Profession, the Bill of the Association retains much of the present system which is notoriously bad, and expunges nearly all that is beneficial.

THE TESTIMONIAL SYSTEM.

True it is, that, like the "Ingin dodge," the testimonial system can now only impose on the simple-minded. But, unfortunately, a large proportion of the members of the civilized world, though serpent-like in their wisdom in regard of the majority of things, are most goose-like in their simplicity where matters medical are concerned.

Not long since, a respectable practitioner of medicine in the Metropolis had under his care the sister of a large Kentish farmer. The lady was insane. She did not recover so rapidly as her country friends thought desirable; and so the brother wrote to request the surgeon in attendance to have a second opinion. And whose opinion did the brother, a man of good middle-class education, suggest should be taken? That of a most notorious quack,—a man whose advertisements stare one in the face out of every journal in England. The surgeon explained to the brother that it was impossible for him to meet a person of that class in consultation, and at the same time mentioned the antecedents of the scamp. The reply was, "I am exceedingly obliged to you for the information you have given me. I supposed Dr. M. to be a most respectable physician. How, when, or where I heard of him I cannot say, but, some how or other, his name has become associated in my mind with the successful treatment of nervous affections." And so it is, the public read in the newspapers long puffs of Dr. M., and they read in the same newspapers his trumpery testimonials, and then, after a while, forget that the Doctor wrote all these glowing eulogies on himself, and paid the proprietors of the newspapers for publishing them. They remember only to have heard of the Doctor and his cures; they forget how, when, and where they heard of him.

The legitimate practitioner cannot advertise his titles, his cures, and his residence; but he may testify to the virtues of some good, bad, or indifferent "curative" agent; and the proprietor of that agent may advertise his trash in the columns of the daily press, circulate handbills concerning its reputed virtues, puff it in all possible modes, and to every advertisement, handbill, or other puff direct, he may affix the name and address of those physicians and surgeons who favour him with testimonials for his peculiar little "nonsense." And, as it is the interest of the proprietor of the nostrum to make the credulous believe that "his" doctors are very great and very clever men, he appends all their titles to their names; and so the world hear of them, their eminence, their distinctions, their cures, and their place of abode. How, when, and where they heard of them the world forget.

This second-hand system of advertising is most discreditable to those who, knowing its consequences, traffic in it. Sometimes, we grant,—very often we hope,—the testimonial is given without any evil intention; and occasionally even the physician is tricked by the cunning proprietor into lending the support of his name to the reputed qualities of the remedy. But the result of the testimonial being given is, on all occasions, that the dignity of the Profession suffers.

Here are a few testimonials out of a hundred or two appended to one and the same handbill:—

"34, Jowry-street, Aldgate,
June 4th, 1851.

"Dear Sir,—Some time ago I bought an hydro-electric chain from you, my good lady suffering from a very bad dry cough, which (especially at night) deprived her of all sleep and rest. Although I have always entertained a high opinion of electricity as a curative agent, I must say that I was astonished at the effect of the chain. She put it on in the evening, and was first rather inconvenienced by a pricking sensation from the chain. She, however, soon fell asleep, and slept soundly with very little disturbance the whole night,—a blessing she had not known of for three or four months previously. The next day the cough was quite altered, being loose and with frequent expectoration; and, wonderful to say, in the course of four or five days, the cough had left her entirely, and she felt even better and more comfortable than before she got the disease.

"I am, &c.

"J. Meyer.

"Mr. C. Meinig."

"Note.—I cannot recommend the use of the chain too strongly in these apparently trifling, but often very dangerous hectic irritations of the respiratory membranes.—C. M."

"Pulvermacher's chain galvanic battery appears to be very ingenious and efficient, and is certainly the most portable in proportion to its power of all that I have yet seen.

"James Paget, F.R.S.,
F.R.C.S., F.R.M.C.S.

"St. Bartholomew's Hospital.
"August 25th, 1851."

"48, Russell-square.

"The ingenious modification of Volta's pile, invented by Dr. Pulvermacher, of Vienna, was placed by him in my hands several months ago, and I have had the opportunity of testing its value. This apparatus is capable of producing all the physiological effects of the well-known galvanic battery, each link of the chain corresponding to a cell of the latter very cumbrous and (for medical purposes) inconvenient machine. It is easily excited, and its power is very persistent. With careful management, it is not likely to get out of order.

"We have in this ingenious invention that which has long been a *desideratum*, viz., an apparatus of the smallest possible bulk capable of evolving a continuous or uninterrupted current of electricity of moderate tension and *always in one direction*, without the expense, bulk, and great inconvenience of the Cruikshank trough, or other cell arrangements. I can hardly recommend Dr. Pulvermacher's invention too strongly to the notice of my medical brethren.

"Golding Bird,
A.M., M.D., F.R.S.
"Fellow of the Royal College of Physicians; Assistant-Physician to, and Lecturer on Therapeutics at, Guy's Hospital."

"Extract from a letter from Corporal R. M. Gavin, 74th Highlanders, Kinsale Barracks.

"I shall let you know what the disease is as soon as cured, which I expect in a short time; in the meantime I can say this much, that the chain has given every satisfaction."

"St. James's-place.

"I feel happy to state, that after my daughter had worn the chain not fully twenty-four hours, it effected what has been a complaint that had yielded to none of the ordinary medicinal means, although applied by a very skilful medical gentleman.

"Mrs. T.

"C. Meinig, Esq."

"Note.—In female complaints the chain is a perfect specific. C. M."

"I have inspected the chain battery of Pulvermacher, and find it very ingenious and efficient, and I cannot doubt but that it will be useful in practice.

"W. W. Gull, M.D., F.R.C.P.
"Professor of Physiology at Guy's Hospital."

"Wolverhampton.

"I have much pleasure in stating that the hydro-electric chain of Pulvermacher's is very effectual in curing headache, as it cured me instantly. "Mary Onions."

If adversity makes men acquainted with strange bedfellows, testimonial-giving brings a motley group of men and women into the same sheets.

Dr. Golding Bird and Mr. Meyer and his good lady, and Mr. Paget and Corporal Gavin, and Dr. Gull and Mrs. T. and Mary Onions, must wonder much thus to find themselves engaged side by side in the same glorious task, viz., pushing into notoriety a "perfect specific in female complaints"—an "unfailing cure for gout"—a "remedy that sciatica can never withstand," "of miraculous power in the treatment of neuralgia," "very successful in chorea," etc., etc., etc. The nerves of some of the above party of ladies and gentlemen have been, we doubt not, long ere this, more shocked by the language of the company into which they have been thrown than ever they were by "the chain."

We learn from another circular, that physicians, surgeons, and patients are all equally delighted to testify to the "superior efficacy and comfort of Mr. ————'s truss "for the treatment of ruptures." Here are some of these joyfully-bestowed laudatory testimonials from a handbill circulated by post, etc.:—

"*From Benjamin Guy Babington, Esq., M.D., F.R.S., Physician to Guy's Hospital.*

"31, George-street, Hanover-square, 1st May, 1850.

"I bear willing testimony to the superior efficacy of ————'s Patent —— Truss over every other kind of truss which I have examined. Notwithstanding its extreme lightness and simplicity, its construction is such as to enable it to maintain its position under the most varied movements of the body. Its neatness and the absence of all fastenings or straps, are qualities which will recommend it at first sight; and when I add that, to my knowledge, it has succeeded in retaining, with perfect comfort to the wearer, ruptures which have been quite unmanageable when heavy and more complicated trusses have been used, I say all that is needed to recommend it to every one requiring mechanical support of this kind. "B. G. Babington, M.D."

Thomas Hookham Silvester, Esq., M.D., Clapham, Licentiate Royal College of Physicians, announces, in the same circular, that he has tried the said truss "in almost every possible variety of hernia, single and double, inguinal and femoral," and that he regards the same truss to be "*quite a boon to humanity.*"

Then follows a testimonial from some good layman *who has worn the truss*:—

"I feel it to be no more than is due to you to testify to the great relief and comfort I have derived from wearing your truss," &c.

Now, we are fully satisfied that the physicians and surgeon whose testimonials we have republished, would be the last knowingly to inflict an injury on the Profession, to lower its status, and to bring it into contempt; but we would ask them, and the many who have done what these gentlemen have done, whether the circulation of their testimonials, in the same handbill as those of Corporal Gavin, the Earl of Essex, Mrs. T., Mary Onions, and the Duchess of Norfolk, can fail to have these effects?

Drs. Babington and Golding Bird occupy too high a place in public and professional estimation, for their names to be more widely known, or their interests advanced by their position and addresses, public and *private*, being thus circulated through every drawing-room, kitchen, and attic in the kingdom; but is it not a temptation to younger and less widely known men to advertise themselves, their official positions, and their whereabout to the world, when they can shield themselves from blame by pointing to the names beside which their own figure?

We shall from time to time watch the columns of the Press, and read the circulars which inundate us by shoals, and, if we find the acts on which we have here animadverted are repeated, we shall bring the subject again and again before the Profession, till to give a testimonial which may be used as an advertisement, will be held to be scarcely more reputable than directly advertising oneself, one's titles, merits, and residence.

SURGEONS TO EMIGRANT SHIPS.

There is a vague impression floating in our mind, that the authorities who preside over emigration require that every ship should carry a medical man, and that such person should be qualified by the possession of a license or diploma. If such be the case, however, it is quite evident that the regulation is easily evaded, as appears by the following advertisement extracted from the *Times*:—

"Surgeon wanted for a vessel proceeding in a few days to one of the southern colonies. Good references and testimonials required, but diploma not essential. Apply, by letter, post paid, &c."

This is, probably, one of the ships which, for aught we know, may be advertised in the columns of the same Journal as carrying an "experienced surgeon." Now, on looking over the lists of the different licensing bodies, we find that at present a sufficient number of qualified medical men is annually sent forth to satisfy the wants of the public, and it has often struck us that the supply was somewhat greater than the demand, at any rate for home consumption; and that the surplus might be employed profitably to the Profession itself, and advantageously to the sick, in the numerous vessels sent forth from this country to our distant colonies. The tide of population which is now flowing towards the southern antipodes, and the consequent circulation of wealth, must afford ample scope for the exercise of medical talent, and at the same time hold out a fair prospect of pecuniary reward to those who possess it. The practice of employing unqualified persons in emigrant ships is probably adopted from motives of economy; and this is the only ground, and it is a very paltry one, on which it can be defended; but the ultimate loss must fall upon the unfortunate emigrants, who are thus entrusted to ignorant and incompetent pretenders, while hundreds of well educated gentlemen would be willing to perform the requisite duties upon a fair scale of remuneration.

Note.—We select the above testimonials because the characters of the donors stand so high that no suspicion of being animated by unworthy motives can attach to them; they evidently have been unwittingly trapped.

Yellow Fever.—The West Indies.—The Highflyer arrived at Spithead, March 24. She was healthy, and reports the West Indian Islands generally recovering from the late devastating visitation. Nearly all the Windward Islands had suffered severely from yellow fever. In the Dauntless, which was expected to arrive at Bermuda daily when the Highflyer sailed, the loss from the yellow fever was eighty-one, sixteen of whom were officers. The Highflyer has lost four officers (one of them Mr. Hay, the Assistant-Surgeon) and four men on the station: and Her Majesty's ship Calypso has since lost two officers, who caught the fever by dining on board the Highflyer; and it is a remarkable fact, that every stranger who went on board the Highflyer took the fever,—even the black pilot who navigated her into Jamaica.

MEMOIR

OF THE

LATE ROBERT JAMES GRAVES, M.D., M.R.I.A.,

FORMERLY PROFESSOR OF INSTITUTES OF MEDICINE TO THE KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND, PHYSICIAN TO THE MEATH HOSPITAL, ETC.

If it cannot be shown that the mental faculties are subject to any general laws of hereditary transmission, it still happens, in almost every country, that certain names become associated with the history and progress of one, or, it may be, many departments of knowledge, thus giving evidence that, in some few favoured lives, and for a time at least, the stream of intellect continues to flow in an unbroken current. Perhaps we might even be warranted in asserting, that that law which holds good for the intellectual development of race, would be applicable to the individual were the conditions at all capable of being maintained stable and uniform. While, however, external relations, as regards the race, either continue equable, or are progressively favourable, the slightest reflection will be sufficient to show us, that the disturbing forces operating against individual hereditary development immensely preponderate; and this, we think, applies to the explanation of physical as well as mental deterioration. In the sister island, the name of Graves has been long associated with scientific honours of the highest kind, and University distinctions of the first order. Among the most distinguished of the Fellows of the University of Dublin, and the brightest ornaments of the Protestant Church in Ireland, was the Rev. Richard Graves, D.D., Dean of Ardagh, well known as the author of a work on the Pentateuch.(a) The youngest son of this eminent Divine was Robert James Graves, the subject of this memoir.

After having received a very careful preliminary education, young Graves was entered as a fellow-commoner in Trinity College, Dublin, and at once evinced abilities of a high order. Among a large number of candidates at a July entrance, he took the first place, and from this time maintained a high status in his class, having been a "double-first" man almost in his entire undergraduate course. With two exceptions, he obtained the first prize in classics and science at every examination, and having put in every term-examination, and obtained a *valdè in omnibus*, he thus entitled himself to, and received, a gold medal, on taking his degree of Bachelor in Arts.

Having determined to devote himself to Medicine, Mr. Graves commenced his professional studies in Dublin, and laboured with equal zeal and industry in the acquirement of medical knowledge, as he had done previously in his university career. The period of Mr. Graves's studentship was one in many respects favourable to the development of youthful abilities, and the encouragement of talents, accompanied by energy and ambition. A sound and methodic system of medical observation was beginning to be understood and cultivated in Ireland. Human anatomy was well and carefully taught, the value of *post-mortem* examination was to a considerable extent appreciated, and if no enlarged pathological views were yet promulgated, at least a rational system of morbid anatomy was preparing the way for them. The observation of the phenomena of disease was held essential, and everything in fact betokened an awakened activity in the medical minds of the Irish metropolis. Detached essays and papers on various medical subjects had appeared from time to time from the Irish Physicians and surgeons, and attempts, hitherto unsuccessful, it is true, had been made to establish a periodical literature. Some medical societies had been formed, and already many Irish names were well known in English and European schools. The period coincident with the date of Mr. Graves's studentship, however, was that which showed the most substantial promise for the future of the Irish school. In the year 1816, the Fellows and Licentiates of the King and Queen's College of Physicians in Ireland formed themselves into an association for the publication of "Medical and Philosophical Intelligence, Hospital Reports, Morbid Histories, and other original papers." In the transactions of this body many valuable communications have appeared. In the year 1817 we find the names of Drs. Cheyne, Edward Percival, Colles, and Todd(a) associated in the editorship of the "Dublin Hospital Reports and Communications in Medicine and Surgery," a publication which reached to five volumes, and which will bear comparison with any medical literature of that period, for variety and extent of observations, and the spirit of philosophic research evinced by the contributors to its pages.

Such was the condition of the Irish Medical School at the date of Mr. Graves's studentship. Eminently gifted as he was by nature, endowed with excellent abilities, remarkable powers of observation, and animated with high and noble views, these influences must have had much weight in the formation and determination of his medical character, and, as the sequel of his career fully proved, he was not unworthy to follow in the footsteps of such noble pioneers of science, and to carry out the good work they had commenced. He was himself also destined to be a reformer, and to have no inconsiderable share in establishing the reputation of the School of Dublin.

Having graduated in medicine, Dr. Graves took the wise determination of visiting some of the chief schools of Europe, and of thus extending the education he had received at home by familiarising himself with the modes of observation pursued elsewhere. After a short stay in London, where he studied under Sir William Blizard and Dr. Robinson, he spent three years in visiting the chief Continental schools, among which may be mentioned those of Berlin, Göttingen, Hamburg, Copenhagen, etc. Among the distinguished teachers with whom Dr. Graves was now brought into contact were Hufeland and Behrend, under whom he acquired that taste for the clinical study of disease, and the cultivation of pathology, which so strongly marked his subsequent career, and so characterize his writings.

In the year 1821 Dr. Graves settled in Dublin, and having succeeded, in conjunction with some other surgeons and physicians, in establishing a private school of medicine, and having also been elected one of the physicians of the Meath, entered with great energy and zeal on the arduous career of a medical teacher. The school of which he was one of the founders, known as the Park-street School (now the site of St. Mark's Ophthalmic Hospital), rapidly acquired a very high character. Here he first taught medical jurisprudence, subsequently pathological anatomy, but afterwards became associated with Doctor, now Sir Henry, Marsh, in the Chair of Practice of Physic. The Meath Hospital, however, was the great theatre of his most important labours. Here he set himself vigorously to work to reform the existing system of medical education. Hitherto, the student had to depend on himself for the acquirement of a knowledge of disease. Books were written, and lectures delivered, both of which avail but little without that actual practical knowledge of the varying phenomena of disease to be gained at the bedside alone. Some years previously, it is true, Dr. Whitley Stokes had commenced the system of actually instructing the student by the bedside; but it remained for Dr. Graves thoroughly to incorporate clinical instruction with the other elements of medical education, and to cause its immense importance to be fully and generally understood and recognised. He soon found apt and zealous pupils, and many of the best and most accomplished practitioners now in Ireland, England, the Colonies, and the public service, were then numbered among Dr. Graves's class at the Meath Hospital, and many have lived to acknowledge with pleasure and pride the obligations they owed to his teachings, and the stimulus which his example lent to their exertions. Two among this number must be specially named,—Dr. Richard Townsend and Dr. William Stokes, now Regius Professor of Physic in the University of Dublin. Of the latter it is not here the time or place to speak. To the former we may be allowed to pay a brief but well deserved tribute in passing. Hurried away by an untimely death, the works which he has left only serve to show how deeply the Irish school has to deplore the loss of one whose early labours gave such sure presage of a brilliant and successful career. Those acquainted with the literature

(a) Another member of the family, the Rev. Charles Graves, D.D., F.T.C., cousin to the physician, has for several years filled the chair of mathematics in the University of Dublin with distinction.

(a) The father of the eminent Professor of Anatomy and Physiology at King's College. The Irish school had to deplore his too early loss in the year 1825.

of thoracic pathology will not need to be reminded of his essays in the "Cyclopædia of Medicine."

Thus energetically and ardently working and teaching, the example of Dr. Graves at this period exercised the best influence on the medical youth of Dublin. His labours, however, were not confined to those of teaching. From an early period in his medical career he evinced the highest talents for original observation, and the results of his inquiries began to appear in print, and to attract attention, from the masterly style of his delineations of disease, his graphic manner, and the clearness, judgment, and decision with which his views were enunciated.

Dr. William Stokes having graduated in Edinburgh, and having subsequently been appointed Dr. Graves's colleague at the Meath Hospital, these too names are henceforth to be met with together as teachers and fellow-labourers in the field of original research. Under their joint editorship appeared the valuable series of Meath Hospital Reports, which have connected the name of this institution with the progress of Irish medicine during the last thirty years.

In the year 1827, Dr. Graves was elected Professor of the Institutes of Medicine to the King and Queen's College of Physicians in Ireland,—a chair which he continued to fill for many years with great distinction. One of his most distinguished pupils thus speaks of Dr. Graves's success as a teacher in this department:—"I am glad to acknowledge my own obligations to the similar chair (Institutes of Medicine) in the University of Dublin, filled then by my distinguished friend, Professor Graves, well known throughout Europe by his contributions to physiology and clinical medicine. From him I first imbibed a taste for physiological inquiry; and under his guidance and direction my first studies upon that subject were pursued."—*Dr. Todd's Farewell Address, in our last Number.*

As a reformer in practice, Dr. Graves has done invaluable service; and in no respect more so than as regards the treatment of the typhus fever of Ireland. This disease, always endemic in the sister island, occasionally breaks forth as an epidemic visitation of the most fatal kind, and several years are popularly memorable as "the fever years." Such were 1817, 1822, and lastly 1846-47. Having enjoyed ample opportunities of studying this fatal pestilence, Dr. Graves became not less distinguished as a practitioner than as a teacher and propagator of bold and enlightened views in the treatment of fever; and on no occasions were his *cliniques* at the Meath Hospital better attended than when it was known that fever was to be his theme. The views of treatment which prevailed at the period when Dr. Graves entered on practice were decidedly in favour of the lowering and depleting plan, whether by purgation or otherwise. In this respect, practice differed then very much from what it had been in the latter end of the preceding century. In the days of Harvey, Purcell, Cleghorn, M'Bride, Plunkett, Egan, and Quin, the tonic plan was followed, and with success; wine and other stimulants were freely exhibited. The propagation of the Hunterian pathology had, however, in subsequent years, filled the minds of men with antiphlogistic theories, to the exclusion of all others, and in these views the Dublin practitioners, with some honourable exceptions be it remarked, very freely shared up to the date of Dr. Graves's teachings. An intimate study of the disease, and a careful observation of the alarming symptoms of early prostration so common in Irish typhus, convinced Dr. Graves of the error of the practice in vogue, which consisted chiefly in withholding nourishment and administering purgatives. Against this system he took up arms, and waged a successful war, not, it may be imagined, without violent opposition. His views, however, soon gained converts, and, aided by his colleague and other enlightened practitioners, the old plan gradually gave ground to the new. There was nothing in which Dr. Graves took more real pleasure and pride than in the changes in practice thus brought about. "Let them write it as my epitaph, that I fed fevers," said he, on one occasion, to his colleague.

The careful support of the system by nourishment from an early period of the disease, and the courageous use of stimulants when indicated by symptoms of depression, now form the leading therapeutic principles in the management of fever cases with all the well-educated practitioners of the Irish school; but unquestionably to Dr. Graves is due the merit of promulgating their views, or at least of reviving the practice, which had fallen into disrepute since the days of the Quins and the Plunkets. Did our limits permit, we could dwell at considerable length on other important principles of treatment advocated by Dr. Graves. We can only refer to his papers "On the Use of Tartar Emetic and Opium in the Delirium of Fever," "The Employment of Acetate of Lead," etc. etc., all which will be found in his collected treatises on clinical medicine.

Independently of the publication of his various detached papers and monographs, Dr. Graves lent valuable assistance to the establishment of a periodical medical literature in Ireland. In the year 1830, the fifth and last volume of the "Dublin Hospital Reports" was committed to his editorship by Dr. Cheyne. Two years subsequently, the *Dublin Journal of Medical and Chemical Science*, the predecessor of the *Dublin Quarterly Journal of Medicine*, was projected and established by Sir Robert Kane, then a student of medicine, and a pupil at the Meath Hospital.(a) After the appearance of a few Numbers, Drs. Graves and Stokes became asssociated in the editorship of the periodical, and Dr. Kane having been soon forced to resign his connexion with it by his increasing devotion to chemical inquiry, it continued in the same hands till 1842.

In the original and review department of this journal, Dr. Graves was a large and constant contributor. In the year 1843, appeared the first edition of his "Clinical Lectures on the Practice of Medicine." Of this work, which passed through a second edition, with much careful revision, and the addition of much valuable matter under the hands of Dr. Neligan in the year 1848, it is quite unnecessary for us to speak. It is well known to every clinical school in Europe.

As a lecturer, Dr. Graves was distinguished by a force and clearness of language, and an earnestness of manner, which irresistibly commanded attention, while his fine person and noble features won the admiration of his hearers. His style as a writer was at once simple yet nervous, and full of graphic power; and his delineations of disease are among the most successful of modern medical compositions. He was a strenuous advocate of the doctrine of contagion, and vigorously opposed the views advanced with regard to the non-contagious nature of cholera during its last outbreak. He was a firm supporter of the dignity and honour of his profession, and on the only occasion on which he descended into the arena of medical politics, he fought boldly and fearlessly, though unsuccessfully, for the rights of his brother practitioners. During many years Dr. Graves enjoyed a large and lucrative practice, and was much *recherché* as a consultant. For some time past his health had been only indifferent, and of late he suffered from attacks of atonic gout. His last illness was attended with considerable suffering, the lungs being much congested. He had also violent paroxysmal attacks of cough, which the slightest exertion was sufficient to induce. Symptoms of a purpuric condition of the blood, accompanied by anasarca, were subsequently manifested. These sufferings were born with Christian fortitude and complete resignation. Dr. Graves expired in the forenoon of the 20th of March, at the age of 56.

MEDICAL REFORM BILL.

DEPUTATION TO LORD PALMERSTON.

On Friday, the 18th of March, a Deputation of the Provincial Medical and Surgical Association waited, by appointment, upon Lord Palmerston, at his residence in Carlton Gardens, to present to His Lordship the Bill that they have prepared for the regulation of the Medical Profession, and to request him to introduce it into Parliament as a Government measure.

The Deputation consisted of Sir Charles Hastings, M.D., D.C.L., President of the Council; A. Robertson, M.D., of Northampton; George Webster, M.D., of Dulwich; Mr. Noble, of Manchester; Mr. Southam, of Manchester; Mr. Cartwright, of Oswestry; Mr. Bree, of Stowmarket; Mr. Bottomley, of Croydon; Mr. Stedman, of Guildford; Mr. Walsh, of Worcester; Mr. Nunneley, of Leeds; Mr. Hastings, barrister,—being the Committee of the Association who have charge of the Bill; John Forbes, M.D., President of the Metropolitan Counties Branch; J. C. Williams, M.D., Nottingham, President of the Midland Counties Branch; C. Chadwick, M.D., Leeds, President of the

(a) See Editor's Preface to *Dublin Quarterly Journal of Medical Science* Vol. I., p. xliii.

Yorkshire Branch; J. Bedingfield, M.D., Needham Market, President of the Suffolk Branch; J. Heygate, M.D., Derby; Mr. Norman, Bath; F. R. Horner, M.D., Hull; G. S. Jenks, M.D., Brighton, Vice-presidents of the Association; J. Conolly, M.D., Hanwell; C. Cowan, M.D., Reading; W. P. Brookes, M.D., Cheltenham; Mr. Nunn, Colchester; Mr. Clements, Shrewsbury; H. Johnson, M.D., Shrewsbury; E. V. Mainwaring, M.D., Bournemouth, members of the Council; Dr. Renton, late President of the College of Physicians of Edinburgh; Dr. Combe, President of the College of Surgeons, Edinburgh; Sir John Liddell, of the Medical Department of the Navy; and Mr. Wakley, late M.P. for Finsbury.

The following Members of Parliament accompanied the Deputation:—The Right Hon. T. B. Macaulay, the Right Hon. M. T. Baines, the Right Hon. T. M. Gibson, Lord Alfred Hervey, Lord Elmley, Lord Hotham, Mr. O. Ricardo, Mr. Walter, Mr. Brotherton, Sir G. Pechell, Sir T. Winnington, Captain Rushout, Mr. Laslett, Mr. B. Westhead, Sir H. Willoughby, Mr. W. Knight, Mr. Craufurd, Hon. R. H. Clive, Mr. Cobden, Sir G. Goodman, Mr. Bright, Hon. Captain Duncombe, Mr. Alcock, Mr. Pigott, Mr. Phinn, Mr. Langton, Mr. Raikes Currie, Mr. Booker, Mr. Aglionby, Mr. Dodd, Mr. Tomline, Colonel M. Biddulph, Mr. Wynne, Mr. Whalley, Mr. C. Berkeley, Mr. G. Berkeley, Mr. Brown, Mr. Martin, Mr. Price, Mr. Headlam, Mr. Cobbett, Mr. Bass, Mr. Drummond, Mr. Mangles, Mr. Bell, Mr. Stafford, Viscount Newark, Mr. Barrow, Mr. Vernon, etc.

The Deputation having been courteously received by Lord Palmerston,

Sir Charles Hastings addressed His Lordship on their behalf, and said, that the Provincial Medical and Surgical Association had existed for twenty-one years, and numbered nearly two thousand members, residing in all parts of the kingdom. It was established for the advancement of medical science, but, finding many obstacles from the incongruous state of the Profession, they had found that it was absolutely necessary to improve the organization of the Profession. They had, from the first, laid down broad principles of medical reform, and had never swerved from them. These were, uniformity of qualification, equal right to practise throughout the United Kingdom, and the adoption of the representative principle in the formation of the Councils or other governing bodies. They had, from time to time, presented petitions to Parliament, and memorials to Government on the subject; and, within the last three years, Sir G. Grey had expressed a resolution to give his sanction to any measure that might be generally approved of by the Medical Profession. Since that time a Committee of the Association had framed a Bill with the assistance of Mr. Hastings, a barrister, which had been repeatedly submitted to the Profession, through the Medical Societies and the district branches; and it had been altered and improved to meet various suggestions. As the result of their labours, he might now state that the Bill had received an unparalleled amount of support. The London College of Physicians had given it their approval, and declared that it was in harmony with their proposed new Charter. A deputation from the Edinburgh Colleges was present to express their approval; and it was warmly supported by a vast majority of Medical Practitioners throughout the kingdom. In fact, no opposition had been made to its principles, though some exceptions might have been taken to its details. The Bill embraced the establishment of a Medical Council, of a Board of Examiners before whom every candidate for a right to practise must go, and of a system of registration. Sir Charles then expressed the wish of the Committee, that, should any objections be made to the measure, His Lordship would give them an opportunity of replying through their Secretary, Mr. Hastings; and in placing the Bill in His Lordship's hands, he trusted that he would think fit to pass it into law, and thus to confer a great benefit, not only on the Medical Profession, but on the sick and suffering of the whole community.

Dr. Renton and Dr. Combe, on behalf of the Medical Colleges of Edinburgh, then expressed their perfect approval of the Bill.

Sir John Liddell pointed out the need of better education for medical officers in the navy; at present they had men well versed in surgery, but ignorant of pharmacy, and *vice versa*. The establishment of a common Board of Examination would remedy this evil.

Mr. Wakley then addressed His Lordship, and said that he had been engaged for twenty-nine years in the work of medical reform, but never till now had he seen much hope of a successful result. Various measures had been introduced into Parliament by Sir James Graham, and by himself, but they had all failed. Now, however, there was a very great approach to unanimity on the subject; and if Lord Palmerston took up the Bill as a Government measure, which he implored him to do, it would receive the most powerful support, it would pass into law without any serious opposition and would be productive of incalculable good.

Dr. Webster, as an old medical reformer, and one supposed to take rather extreme views, begged to express his entire concurrence in the Bill.

Mr. Brady, M.P., and several other gentlemen having spoken to the same effect,

Lord Palmerston said he was deeply impressed with the subject which had been brought before his notice by the Deputation, affecting, as it did, not only the interests of the public, but those of a most highly-educated and important Profession. Many attempts had been made to legislate on it, but without success. When out of office, some years since, he had been requested to take up the subject, but had declined to do so, on account of the discordant opinions then entertained by the Medical Profession. Now, however, a different feeling seemed to prevail, and a great approach towards unanimity had evidently been made, as was manifest from the importance and varied character of the Deputation. He should give his best attention to the measure that had been laid before him; and, if there was a good prospect of bringing it to a satisfactory settlement,—and he thought that he saw now such an opportunity,—he should feel it his duty to bring it before Parliament, in conjunction with his colleagues, as a Government measure, and to carry it out with energy. His Lordship added, that he should take an early opportunity of communicating with the secretary, Mr. Hastings, on the subject.

Sir Charles Hastings thanked His Lordship, on behalf of the Deputation, for his personal courtesy, and for his promise to take the Bill into his favourable consideration.

The Deputation then withdrew.

[We regret that the above Report arrived too late for insertion last week.—Ed.]

REVIEWS.

A Text-book of Physiology. By Dr. G. Valentin, Professor of Physiology in the University of Berne. Translated and Edited from the Third German Edition. By William Brinton, M.D., Licentiate of the Royal College of Physicians; Physician to the Royal Free Hospital; Medical Tutor in King's College. Part I. 8vo., pp., 320. London: Renshaw. 1853.

The reputation of Professor Valentin, as one of the first physiologists of the day, has long been established, not only in Germany, but in our own country; and it has often been a matter of no small surprise to us, that his admirable Text-book, so much valued abroad, has not long since made its appearance in an English dress. Two great advantages have, however, accrued from waiting, viz., first, that the Professor's views have been matured, and many of his original researches confirmed during the period that has elapsed since the first edition of his work appeared; and, second, that a gentleman has been found, who, as translator, has done the most ample justice to the original, while, as Editor, he has, by his clear though brief explanatory notes, not only given much assistance to the student, but has, in reality, very materially enhanced the value of the book.

All who have had much experience in teaching will agree with us, that there are few mistakes greater than that of taking for granted the pre-existence of much knowledge on the part of pupils; and, although it may often be convenient for a lecturer to shirk entering into a minute detail of the elements of chemistry or natural philosophy, still it is an inconvenient practice as regards his hearers. Without wishing, therefore, to lengthen lectures or books, we think we may advise that they should be made to contain more facts, more real knowledge, and fewer words, than they often do at present. We know very well, for example, that, as journalists, we frequently find no difficulty in putting into *lines* that with which our contributors have covered *pages;* and we feel convinced, that many English authors would have filled several volumes with the matter which, in the work before us, has been condensed into one.

Now, the distinguishing feature of Professor Valentin's treatise may be said to consist in the clearness with which all the physico-chemical researches—which in the present day have aided so much in the advancement of physiology—are compressed and laid down. The author seems to have started with the idea, that his work

should be eminently one for the instruction of students; that it should, indeed, be a text-book, and that, consequently, it would be erroneous to look for much previous scientific information from his readers. He has borne in mind the words of Herschel, that "Science is the knowledge of many, orderly and methodically digested and arranged, so as to become attainable by one;" and he has so arranged and consolidated his own knowledge of the sciences bearing upon physiology, as to be able easily to communicate it to others. "Hence," as Dr. Brinton well remarks, "the advanced student of physiology may use this book as a convenient summary of many experiments hitherto imperfectly known in this country. While the beginner will certainly find that, in addition to a full though condensed treatment of the first principles of this science, it comprehends so much of various kindred subjects as may either obviate, or, what is better, fructify, a reference to the ordinary text-books of each. And in this respect it seems peculiarly adapted to that increasing number of the educated public, who, although unable to devote themselves to an extended course of study, still desire some insight into the natural laws which regulate their own life and welfare."—Preface.

Our readers will thus perceive that the work is one, *sui generis*, differing much from any of the valuable original treatises which we possess. It must not be supposed, however, by our younger readers, that it does away with the necessity for studying these. On the contrary, it rather increases their value, inasmuch as we feel convinced that the physiological writings of Todd and Bowman, Carpenter, Paget, Sharpey, and others, will be better understood and more highly appreciated after a careful perusal of Valentin than before.

In concluding this necessarily brief notice, it only remains for us—in strongly recommending Valentin anglicised to our readers—to say, that Dr. Brinton has fulfilled his task in such a manner as might be expected from him by those who have read the original and philosophical articles which he has published in the "Cyclopædia of Anatomy and Physiology," as well as in our own pages and the other medical periodicals.

Urinary Deposits, their Diagnosis, Pathology, and Therapeutical Indications. By Golding Bird, A.M., M.D., F.R.S., F.L.S., Fellow of the Royal College of Physicians, etc. Fourth Edition, Revised and Enlarged. 8vo. Pp. 473. London: Churchill. 1853.

In looking over the pages of this new edition of Dr. Golding Bird's well-known work, we feel much of the pleasure that is experienced on welcoming the return of an old and valued friend, strengthened and improved by experience or travel. The great advance which has been made during the last few years in the diagnosis and treatment of renal diseases generally, is undoubtedly due in no small measure to the labours of Dr. Golding Bird, for not only has he, by his philosophical writings, made much clear that was before uncertain and obscure, but he has also aroused an active spirit of inquiry in others,—a spirit which has already been productive of many most important results, and which will, we doubt not, continue to bear valuable fruit. In the present edition, the author has made such improvements as the progress in this department of medicine has called for; but the most important addition, and one which we would especially recommend to the notice of our readers, is a chapter on the action of diuretics, which we cannot do better than notice in Dr. Bird's own words:—

"I cannot but feel," he says in his Preface, "that the subject matter of the last chapter demands some explanation, and I fear it may be thought that I have introduced it without its possessing sufficient connexion with the pathology of urinary deposits. The subject of a more rational and philosophical system of therapeutics,—one more consistent with an inductive plan of inquiry than we at present possess, has for many years been with me a cherished idea, and I had hoped to have been permitted to have contributed something to the common stock of knowledge on this subject, one of the most important in its bearings on our mission of alleviating the distresses of sickness, and of combating the effects of disease. Severe and protracted illness, with which it pleased Divine Providence to visit me in the early part of the past year, rendered a diminution of labour and a more limited devotion to the duties of my Profession imperative. I have, therefore, been made deeply sensible that such an inquiry must fall into other and more vigorous minds and abler hands. Still I hoped, that a brief summary of what I had been able to make out respecting the action of some diuretic agents, might appear in these pages without censure."

In expressing our great regret at the cause which has impeded the progress of the work before us, we are only doing that which will meet with a warm response from every member of our Profession.

PROGRESS OF MEDICAL SCIENCE.

SELECTIONS FROM FOREIGN JOURNALS.

GANGRENOUS METASTASIS FROM THE LUNGS TO THE BRAIN.

By RUD. VIRCHOW.

I have already, in my work upon inflammation of arteries, (Virchow's Archiv., Bd. I., S. 332,) communicated a case where, in a patient who died of gangrene of the lungs, there were found in the mesentery gangrenous deposits, which more minute investigation proved to be lodged within the branches of the mesenteric artery, such deposits having come from the gangrenous lung by the pulmonary veins, and been propelled from the left side of the heart into the systemic circulation. As this form of metastasis has not yet been much investigated, the relation of a fresh case may serve to arouse the attention of pathologists.

Anna Maria Schwing, of Buchold, aged 21, came to the Julius Hospital, May 18th, 1852, suffering from melancholia religiosa, accompanied by occasional maniacal fits. From June 10th to two days before her death, she exhibited the most determined abhorrence of food. From July 8th, there were symptoms of severe affection of the lungs, characterised by fetid and blood-stained sputa, paroxysms of asthma, and uncontrollable fits of cough. Her excited state prevented a more accurate examination. Death ensued August 8th, at a quarter past seven a.m., without any further cerebral symptoms.

Examination of the Body, August 9.—Skull-cap thin, but normal; sinuses empty, but superficial; cerebral veins full; numerous granulations (gland. Pacchioni?) along the sinus long.; considerable serous effusion at the base of the skull and in the ventricles; cerebral substance firm. In the left ventricle, and extending over both the optic thalamus and corpus striatum, there was a discoloured, dirty grey surface, under which was a whitish semifluid, or crumbling mass of limited extent. Upon further examination, four similar spots were seen upon the posterior surface of the hemispheres, under the pia mater, and in the sulci; they consisted of a white, semifluid, stinking substance, surrounded, as in the ventricle, by a dirty grey circumference. The microscopical appearances of this substance showed that it consisted of an amorphous granular detritus, with long, spear-shaped, fat crystals, (such as I have shown to occur often in gangrene of the lung,) pigment masses, and altered blood-discs. Parts of the mass were traced, under the microscope, into the arteries of the pia mater.

Old adhesions on both sides of the chest; recent effusions of lymph over gangrenous portions of the visceral pleura. The right lung was torn in separating its adhesions; and, from the fissure, there issued a thick, dirty grey, and partially brownish, stinking substance, which had been enclosed in a cavity with defined walls. There were many other similar accumulations scattered throughout the pulmonary substance, one as large as a hen's egg. The microscopic characters corresponded with those mentioned in the cerebral deposit.

It may be inferred, that, in consequence of imperfect nutrition, gangrene of the lung first ensued; then small granular particles became detached, entered the left side of the heart by the pulmonary veins, and thence were driven through the carotids to the pia mater, where they spread the decomposing process to the structure of the brain. The spots were of limited extent, the surrounding vessels and tissues being normal.—*Virchow's Archiv.*, 1853.

Dr. Kirkes observes, in speaking of the detachment of fibrinous deposits from the interior of the heart: "The finely granular material resulting from their disintegration, min-

gling and circulating with the blood, may give rise to various disturbances indicative of a contaminated state of this fluid, producing symptoms very similar to those observed in phlebitis, typhus, and other analogous diseases." This remark may be extended to disorganization going on in the lungs, and perhaps in other organs; and the cases related by the different authors who have written upon this subject should stimulate those upon whom the responsibility of making *post-mortem* examinations falls, to investigate, more thoroughly than has heretofore been done, the condition of the interior of arteries and veins, both in their main trunks and in the immediate proximity of diseased tissues.

A CASE OF PERFORATING SORE OF THE DUODENUM.

By Dr. BARDELEBEN.

Andral has shown, in his "Pathological Anatomy," that the duodenum is that part of the alimentary canal where ulcers least commonly occur. Nevertheless, the perforating ulcer, known in the stomach, and well described by Rokitansky, has also been met with in the upper part of the duodenum. This portion of the alimentary canal resembles in its minute structure the part where perforating ulcers are found, namely, the pyloric extremity of the stomach. The Brunner's glands correspond in structure with the racemose glands, at the pyloric extremity of the stomach, in every particular, but in the lower part of the intestinal mucous membrane, no such structures are to be seen. May it not be, that these racemose glands are to be regarded as the spots where the ulcerative process commences?

Oct. 25, 1848.—I was called to Herr R. A. K., "who had been suddenly seized with most dreadful cramps." I found him (a person well-known to me, and about 56 years of age) bent double, sitting upon a chair, and shrieking with pain in the upper abdominal region. He was a man not accustomed to yield to fancy, hardened to bodily exertion by the chase, and of endurance against suffering, as he had shown in some operations upon the head, consequent upon an injury.

This attack could not, therefore, be regarded as one of common intestinal disturbance; and inasmuch as the patient had been out shooting up to the previous evening, and had had the following morning the usual evacuations; inasmuch as there was no evidence of hernia, I concluded there must be either perforation or intussusception of the bowels. It appeared, upon making more minute inquiry, that for some time he had experienced an uneasy sensation in the upper abdominal region, accompanied by want of appetite and an unpleasant taste in the mouth. The pulse was small, but of normal frequency; the countenance expressed great anguish: and the patient's cry was for purgative medicine. More to please him than with any idea that good would result, I acquiesced in his taking castor-oil and calomel in considerable doses, followed by bleeding from the arm, and an injection per anum. This last measure produced the evacuation of a small quantity of fœcal matter. The cries of this patient increased from hour to hour, the breathing became difficult, and he pointed to the upper abdominal region as the seat of pain. The same measures were repeated from time to time, until the following day, when death ensued at 5 a.m., just twenty hours after the first manifestation of pain. Examination of the body by Professor Bischoff. In the anterior wall of the duodenum (*pars transversa superior*) midway between the pylorus and the entrance of the bile ducts, was seen a round hole a quarter of an inch in diameter, from which a thick brown fluid escaped. This perforating duodenal sore resembled the perforating gastric sore. It was funnel-shaped, with an orifice surrounded by a prominent ring of mucous membrane, and the lower aperture sharp and defined, and opening into the serous cavity. The structures in the neighbourhood of the sore were healthy; the mucous membrane of the stomach was discoloured of brownish hue by the calomel; and all the contents which could escape, even the castor oil, were in the sac of the peritoneum. Other structures normal. Could opium have benefited the patient under these circumstances? It must be remembered, that in full narcosis the peristaltic action of the intestinal canal continues, as has been proved by experiments upon animals, and that, therefore, there would still have been escape of the intestinal matter.—*Virchow's Archiv.*, 1853.

[There can be no doubt but that the proper treatment would have been the administration of opium in doses sufficiently large to produce narcotism.—*Translator's Note.*]

THE EMPLOYMENT OF TANNIN IN GONORRHŒA.

By Dr. LANGE, of Konigsberg, Prussia.

The author used the tannin pure in eight cases, with sulphate of zinc in two cases, as an injection (ʒss. to ʒij. to ʒij. water) in ten cases. The injection was used three or four times a day. The disease in the several cases had lasted from one to five weeks, and from four to six and nine months, etc. The ages of the patients varied from seven-en to forty-three years. They were cured in from six to nine days. No pain followed the use of the injection.

INOCULATION WITH PUS FROM A VENEREAL SORE FOR THE CURE OF INVETERATE VENEREAL DISEASE.

By ALQUIE.

The author attempted to substitute a milder for a more severe form of venereal disease, with the belief that the one would supersede the other. It appears that similar attempts have been made to bring cancerous sores to cicatrise.—*Gaz. de Paris*, 45, 1852.

[We doubt whether this disgusting practice will find favour in England.—*Translator's Note.*]

GENERAL CORRESPONDENCE.

NEW MEDICAL BILL.

Advenienti occurite morbo.—OVID.

[To the Editor of the Medical Times and Gazette.]

SIR,—After a careful perusal of the draft of the intended Medical Bill, were I asked by a member of the Legislature my candid opinion respecting it, I should most certainly reply that I compared it to a net with close meshes, artfully devised by some few fortunate fishermen for the capture of fish of divers kinds, as well old ones as their young fry, claiming to themselves the privilege of retaining the more sightly and quiet, but of throwing overboard those more sportive in their movements or disposed to jump about.

I purpose, *pro bono Medicorum*, to select a few disjointed pieces, from what appears to me some of the more important clauses, and having dovetailed them together in a systematic manner, proceed as with a problem of Euclid.

Imprimis. We are told in the preamble, that this Medical Bill is intended for promoting the knowledge of physic and surgery, and for affording means by which those who have been examined and found skilful by competent authority, may be known from ignorant and unskilful pretenders.

In Clause 3 we find, that a Council is to be established, consisting of a mixture of physicians and surgeons, which clause ends with this expression,—"and that the powers vested in the said Council by this Act may be exercised and executed by any six members thereof."

In Clause the 13th it is stated, that all practitioners possessing British diplomata are to show them to the proper authorities, who will enter the dates and other particulars in a register provided for that purpose, a certificate being granted to each, for which a sum of five shillings is to be paid annually.

In Clause the 26th we find, that if any person practises medicine without being registered, and without having a certificate of such registry in force at that time, he is liable to be summoned before a magistrate, and on conviction be mulcted to the extent of from 2*l.* to 5*l.* for every offence, recoverable within six months from the commission of the offence.

In Clause the 31st it is stated, that persons practising medicine without a licence, may be cited before justices of the peace, who may hear and determine such charges on the oath of one or more witnesses, and award the penalties or punishments provided for such offences; and in every case of non-payment thereof, it may be lawful for such justices of the peace to commit the offenders to gaol, or house of correction, for from one to six months.

In Clause the 27th we find, that if three registered practitioners shall at any time complain to the Council of a brother practitioner being guilty of unprofessional behaviour, or any irregular practice, the Council is empowered to cite the accused before its members, stating the nature of the charges against him, and if, after having heard the accused, they are satisfied that the charge has been proven, or if, in default of his appearance, having in that case decided the charges proven, they are authorised in directing his name to be erased from the register of the College for a time or for ever, its re-insertion being left entirely to their discretion.

Having extracted from the Bill itself so much as is sufficient for my purpose, I shall now adduce a probable case. A prac-

titioner in a neighbourhood is much liked, popular, and thriving in his Profession; in consequence thereof he excites the envy of his brother practitioners in the same locality; they combine together and watch every opportunity of catching him tripping. Now, as all regularly educated practitioners will then be compelled to register, three acquaintances could soon be found, perhaps even in the same street, road, or village, who would come forward to crush this same individual to endeavour to better themselves, and accordingly lodge their complaint against him at the College. If this practitioner is, from distance, illness, or any other cause, unable to attend at the time appointed, by the order of six brother practitioners, without even the presence of a barrister, magistrate, or judge, he may have his name erased from the register, and he would then be placed on a par with an unregistered practitioner, to be fined from 2*l.* to 5*l.* for every offence, and if these fines be not paid, he may then be taken before a magistrate, and committed to gaol or house of correction, and these places not being the best schools for morals, when the period of incarceration has expired, one of two things may then be carried into effect; he may, for revenge sake, waylay the persons who were the original cause of all this molestation, assassinate one of them, and be hanged in consequence, or, his ordinary occupation being gone, he may, to obtain a subsistence, perhaps for a wife and family, commit forgery or other felony, and so be transported for life.

This 27th Clause has been carefully perused by a patient of mine, a barrister, who stated, that it contains very loose expressions, and he would not like to be a medical practitioner if this Bill be allowed to pass with this precious clause in its present form.

My ancestor accompanied King Edward the First to the Holy Land, and had the honour of removing an arrow from that monarch. My great-grandfather was first physician of Exeter Hospital at the time of his death, in the last century. My father, a surgeon, lost his life from typhus fever, caught by entering, in his vocation, a house shut up in consequence of all the inmates being dead, or confined to their beds through that disease. I, myself, have been in the medical profession since 1819, and have now four cousins, physicians, in different parts of the country. I am, therefore, medically descended, born, educated, and connected, and consequently consider myself entitled to give an unbiassed opinion respecting the Profession to which I have been attached so many years. I do, therefore, boldly declare that, with so little unanimity, so much illiberality, envy, and backbiting, among its different members, and especially in the lowest grade, at the present time, if this Medical Bill be allowed to pass, and this 27th Clause remain intact, no member of the Profession will be safe from molestation, if not from ejectment, from that Profession, to which, at the time of passing his examinations, he had every reason to believe he would have belonged so long as he lived.

King George the Third, on being applied to respecting the clergy, appositely replied, "Once a priest always a priest." It is, therefore, to be hoped, that, in the present reign, the Legislature will not confer on our Profession a Bill, two clauses of which disqualify its members, by causing their names to be erased from the register, after making it compulsory for them to register annually.

I would advise the Committee of this intended Medical Bill to adhere more closely to the text, or to what is contained in the preamble, and likewise to enlighten the individual members of the Profession respecting the implied meaning of these obnoxious expressions, and what amount of irregular practice or unprofessional behaviour should, in their opinion, justify three brother practitioners in citing a regularly educated man before the Council, thereby putting him, at the least, to inconvenience and expense. The Profession has a right to demand such an explanation. I do sincerely hope that its members will be wary, and watch the proceedings of the Committee during this present session of Parliament; and if any have for patients Members of the Legislature, will open their eyes respecting this intended Bill, so that it may not be smuggled through the House, at the end of the session, without any opposition having been offered in consequence of so few of its Members being acquainted with the subject.

I am, &c.,

Thomas G. Melhuish, M.D., M.R.C.S. Eng.

60, York-road, Lambeth.

BOARDS OF GUARDIANS AND THEIR MEDICAL OFFICERS.

[To the Editor of the Medical Times and Gazette.]

Sir,—The ability with which you advocate the cause of the Poor-law medical officers induces me to offer for insertion in your valuable Journal the following exposure of the proceedings of the Guardians at Bishop's Stortford, towards the medical officers of that union. I am, &c.

Sawbridgeworth. John Brickwell.

In the Number of this Journal for July 31st, 1852, is contained a narrative of an attempt, by the Board of Guardians of this union, to reduce the salaries of their medical officers, without a previous conference with them on the subject, and assigning no reason for the proposed reduction; and of the resignation of the medical officers on these grounds.

In consequence of some informality in the proceedings of the Guardians on that occasion, their resolutions were quashed by the Commissioners, and the medical officers re-instated in their appointments at their former stipends.

This miscarriage of their intentions seems to have confirmed the Guardians in a determination to effect their purpose at a subsequent opportunity; for a similar attempt is now made, avoiding the informality of last year, and with circumstances more offensive to the medical officers.

By a circular letter, dated January 7th, 1853, the medical officers were invited to meet a Committee of the Board of Guardians, "to assist in the arrangement of the medical districts and salaries."

Regarding the invitation as a conciliatory movement, they gladly accepted it, hoping to promote and establish a reciprocal good feeling with the Guardians. On entering the Board-room, they were greatly disappointed to find that the sole object of the Guardians in requesting the meeting was, to make a violent attack upon a Society they had formed among themselves, for the purpose of facilitating the Poor-law arrangements relating to medical relief, with a view of effecting its dissolution. A minute examination was made into the constitution and objects of the Society, and its papers were inspected.

The result of this inquisitorial proceeding was, that the Guardians passed a resolution to the effect, that the Society was not calculated to obstruct them in the discharge of their duties.

This inquiry concerning the Society, the institution of which appears to have given great offence to the Guardians, having terminated in a manner much to the credit of the medical officers, those gentlemen urged the Guardians to enter upon the business for which they were convened, when they were coolly informed, that the question of the arrangement of the districts and stipends was not then before the Board.

It was naturally expected that another opportunity would be offered to the medical officers, "to assist in the arrangement of the districts and stipends," to redeem the pledge held out in the circular letter above mentioned. But the Guardians declined to keep faith with the medical officers, and, without further communication of any kind, sent them, a few days afterwards, circular letters, offering them their re-appointments at reduced stipends.

All the medical officers, save one, declined the offers, and enrolled themselves in a Society for mutual protection, sending a copy of the resolution they had passed to that effect to the Board of Guardians.

Advertisements were immediately inserted in the public journals for medical gentlemen to supply their places, for which there are eighteen applicants.

I make no comment on this plain statement of facts; it speaks for itself.

THE "MEDICAL DIRECTORY."

[To the Editor of the Medical Times and Gazette.]

Sir,—The Senatus having ascertained that a Mr. Hugh Hastings, of Cheltenham, is described in the "Medical Directory" as M.D. B.A. St. Andrews, I am directed to request that you will intimate in the next Number of your Journal, that no person of that name is either a Doctor of Medicine or a Bachelor of Arts of this University. I am, &c.

James M'Bean, Clerk.

University of St. Andrews.

QUALIFIED ASSISTANTS.

[To the Editor of the Medical Times and Gazette.]

Sir,—In your Number of the 12th—which, through some inadvertence of the bookseller, has not reached me till now—I find a letter on the oft-discussed subject of Assistants. I wish the gentleman, who has treated the subject in a just and kindly spirit, had protested against the employment of unqualified assistants at all, rather than pointed out the relation that should exist between them and their employers. If a dispenser merely be required, any chemist's assistant can as well, if not better, perform the duties; nor in the performance of such duties need he neglect the advance-

ment of his own education. But, if the assistant is to undertake the medical and surgical treatment of any class of patients, the practitioner is bound by his sense of justice towards them, as well as care for his own reputation, to employ a qualified man.

Whenever I have seen a young man whose time might be infinitely better employed in acquiring the knowledge needful for the conscientious discharge of such professional duties as it may be his lot to perform, undergoing the purgatory of mere drug mixing, I have ejaculated, like the father in "Les Fourberies des Scapin," "Que diable allait il faire dans cette galère?" Certes, the time allotted for medical education by the powers that be, is too short to admit of any curtailment or distraction, and the position of unqualified assistants is as unprofitable as degrading. I say degrading advisedly, for the man who can entrust life to one of whose ability to treat disease he has no legal guarantee, must be utterly incapable of treating that, or indeed, any person in a gentleman-like manner.

For the benefit of those gentlemen who are qualified and assistants, I may add, that they are bound, as well as their employers, not to do anything that can lower the dignity of their Profession, that they bind themselves to perform certain professional duties for a stipulated sum, according to that system which their own knowledge and experience have indicated as the best, and not in deference to any ideas their employers may entertain. In fact, that they are, as practitioners, completely independent when a case is confided to their care, though they must necessarily undertake the treatment of any case their employers indicate. In social life they are their employers' equals, as also in professional, save only that they are bound by agreement to undertake the treatment of any case indicated to them; and here, if any breach of professional etiquette be involved, it is their duty to themselves to refuse. I am sorry to trouble you at such length; the money question, as it relates to Assistants, has been discussed *usque ad nauseam*; it is a mere question of supply and demand; but the question of standing is one of far greater importance to those who may be, as I am, A Qualified Assistant.

INDECENT ADVERTISEMENTS.

[To the Editor of the Medical Times and Gazette.]

Sir,—As you are fighting a good fight in the exposure of the "indecent advertisement" system, very much for the benefit of society in general, it is only fair that any one who is cognizant of a portion of the disgusting proceeding of these quasi M.D.'s should cheerfully place his facts at your disposal.

I will then state what happened to myself with as little circumlocution as may be.

When a student of medicine at Cambridge, I was one day surprised by the receipt of a small octavo volume by post, prepaid by a large number of stamps. It claimed to be a "Treatise on Manly Vigour, Impotency, Seminal Weakness," &c., so written (for I had the curiosity to look through it before I put it into the fire) as to excite both the fears and the imaginations of susceptible youth of either sex, and illustrated most profusely with highly-coloured engravings of the sexual organs, in every variety of malady under which it was presumed the unfortunate might languish.

I was naturally rather surprised that so large an amount of postage-stamps should have been expended for my particular benefit; but, on mentioning the subject that day in Combination-room after dinner, one or two of the junior members (one of whom was in orders) owned that they had respectively received similar books through the same medium of the "post," and they did not omit to express their unmitigated disgust at being subjected to this species of insult.

It needed but little reflection to divine the course of proceeding adopted by the impudent quack who had presumed to send these offensive packages. He had probably looked through the Cambridge Calendar, and, selecting the names of junior fellows of colleges and "fellow commoners," had at once taken this costly mode of forcing these abominations into the notice of a class of men who were, at all events, presumed to have some amount of wealth to be clutched at by harpy fingers. The sender of this book was, of course, quite ignorant of the fact, that, though my name appeared in the Calendar as a "fellow commoner," yet that I was, in fact, a graduate in medicine—an M.B., or he would have been as chary of introducing his particular talents for my inspection as a thief of venturing within the range of a policeman's lamp, or, perhaps a better simile, an "obscene" animal of wending towards daylight.

Probably, if I had not broached the subject with indignation, not one of the recipients of this publication would have ventured to mention the fact of the same insult having been offered to himself, and this from a delicacy in alluding to the subject. We can easily understand that this natural feeling would be counted on by the quack; and all timidity on the part of youth is provided for, as either sex is spared the nervous shock of an application to any agent or publisher, the "panacea" coming in its sealed envelope directly into the interior of a family. Who will venture to say, that it is not most desirable that the parents and guardians of youth should be informed of one mode by which such miscreants seek to poison the fountain of purity?

It is not the purport of this communication to enumerate the specific evils which it is to be feared do arise, in many instances, from the reception and subsequent perusal of such infamous publications; the miscreants who send them, working on the pure minds of youth, doubtless know full well the force of the Arabic proverb, "Throw mud against a white wall, and, if it does not stick, it will leave a mark."

You are quite at liberty, Sir, to publish this communication as it stands, or to make use of the facts. I am only too happy to be able to lend you a helping hand.

I am, &c. Φ.

COMPULSORY ATTENDANCE ON MIDWIFERY CASES.

[To the Editor of the Medical Times and Gazette.]

Sir,—Would you kindly inform me if, in Scotland at least, a Medical man is obliged, by law, to attend every case he may be solicited for; in other words, can he be compelled to attend, or, what is the same thing, fined for not attending a case when he is disengaged and disinclined to go, there being other Medical men resident in the same town?

I ask this question, from having been threatened with a dose of law for declining lately to attend a labour case in a neighbouring village. The call came through the night. I have been but a short time convalescent after an attack of intermittent, and have not been out in the night-air since; I have also a strong dislike to midwifery practice in general, and wish only to attend such cases when I cannot help it, in the routine of family practice; and, therefore, I declined the honour of attending this case, conceiving, that when there were three other practitioners in the town, two of whom pay peculiar attention to this department, (though, by the way, one of these is said to be an irregular practitioner,) besides a midwife in the town, and another in the village in question itself, I might forego the labour if I chose to sacrifice the fee; in fact, that, like the baker or butcher, I might deal with whom I chose, or, like the lawyer, might only undertake such cases as were perfectly agreeable to me, seeing that I am a private practitioner, and not a public functionary, or at least in public pay.

I would be the last to act an inhumane part, and refuse my aid to a suffering fellow-creature, if no other aid could be got; but I fancy that this is a land of freedom, where a professional man may choose his department of labour, and not be bullied into anything he dislikes. I am sorry to say, that, in country districts, the medical practioner is not held in fitting respect. I do not wish him to be worshipped, but I do claim for him as high a position as the clergyman occupies, be he Established or Dissenting.

I find I am wandering from my query: but to return. I would be greatly obliged, if you would take the trouble to satisfy the questionings of, Sir, &c.

Delta.

[There is no law to compel attendance in such a case.—Ed.]

PROPOSAL FOR A MEDICAL CLUB IN LONDON.

[To the Editor of the Medical Times and Gazette.]

Sir,—All professions, all ranks of society, have their clubs in the great metropolis, the medical profession alone excepted. I ask, why should this be the case? It must, in the eyes of the non-medical portion of the world, cast a reflection on us. I care not for society myself—I can have as much as I wish in my own neighbourhood in the country; but it is to me a great relief occasionally to run up to London for a change from the toil of a wide and extensive practice, and I confess it would be a comfort to seek the social resort wherein I might be able to spend a few hours in the society of my quondam fellow-pupils, and save my pocket from the very exorbitant charges of a West-end Club. Feeling it only wants to be noticed by a journal of your standing to cause the matter to be taken up, I am, &c.

A Country Practitioner.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

Dr. Babington, F.R.S., President, in the Chair.

Dr. Bristowe exhibited a specimen of

PRIMARY SCIRRHUS OF THE PERITONEUM.

The patient was a porter, aged 41, who died in St. Thomas's Hospital. The peritoneal cavity contained about three pints of serum. The serous membrane was almost everywhere the seat of malignant disease, either in the form of discrete lenticular spots, or of patches formed by their confluence, or of homogeneous laminæ produced by a still more complete coalescence. The disease occupied the visceral equally with the parietal peritoneum, excepting only that investing the liver, which was almost entirely free. It was most abundant and most manifest in the loose folds, as the great omentum, lesser omentum, suspensory ligament of the liver, mesentery, appendices epiploicæ, etc., which were much contracted and thickened, and invested by a layer of cancer. It extended into the muscular tissue of the diaphragm; and the diaphragmatic pleura on both sides was studded with it like the peritoneum, only in a less degree. No abnormal deposit of any kind was noticed in any other organ or part of the body. The cancerous deposit was firm, hard, slightly translucent, and generally from half a line to a line thick. It appeared to have no tendency to form outgrowths, as is the case with encephaloid, but rather to cause thickening and contraction. There could be no doubt of its cancerous nature, both from its general character and from its microscopic structure. It consisted, as scirrhus generally does, of dense fibrous tissue, circumscribing round or oval spaces filled with nucleated cells. Many of the cells contained two, three, or more nuclei, and the nuclei usually one or two nucleoli. The patient was only in the hospital about ten days, and during that time suffered chiefly from continual nausea and vomiting, with extreme constipation and some tenderness in the abdomen; indeed, it seemed probable that his symptoms were due to some internal obstruction. In connexion with this, it was interesting to remark, that the mucous membrane of the alimentary canal was healthy throughout, and no real obstruction existed; still the muscular tissue of the right half of the stomach was much hypertrophied, showing that a virtual obstruction had existed beyond in the contraction, probably produced by the cancerous deposit.

SCROFULOUS DEPOSIT OCCUPYING THE RIGHT OPTIC THALAMUS, AND THE RIGHT CRUS CEREBRI.

Dr. J. W. Ogle exhibited this specimen, and furnished the following account.—

A girl, of the age of twenty-two years, was admitted more than once into St. George's Hospital with abscess at the upper part of the right arm. This was supposed to be connected with scrofulous disease of the shoulder-joint. On one occasion, shortly after admission, she was affected by intense headaches and loss of consciousness, which continued for some time, and subsequently one had other similar attacks of but short duration. She also had strabismus, and the face was drawn to the right side, and there was inability to retain the evacuations. By means of nourishing food and stimulants, the patient recovered so far as to leave the hospital with only occasional headache, and a vacant expression of countenance. When re-admitted into St. George's Hospital, the face was much drawn to the right side, and there was perfect ptosis of the left eyelid. She was in a semi-comatose state, but when spoken to could answer rationally, though in an unusual tone. The evacuations were passed involuntarily. There was also constant moaning, but no pain was complained of, and only a sensation of "pricking" in both arms. The abscess before mentioned was still discharging. The patient remained for eighteen days in this state, but up to the day of her death she recognised those around her when roused. She gradually sank, and died without any convulsive action or paralysis having come on.

Post-mortem Examination.—The body was in good condition. Extensive caries of the bony elements of the right shoulder joint was found, and slight scrofulous deposits existed in the apices of both lungs; but, beyond this, no general indications of tuberculosis were discovered. There was evidence of considerable bronchitis having occurred, and posteriorly the lungs were engorged and friable. The heart was healthy. The abdominal viscera showed no appearances of disease, excepting the kidneys, which were unusually large and firm, and contained several small cysts. The bones of the cranium were healthy. Much sub-arachnoidean fluid existed, and, on section, the brain proved to be "wet," and to contain many congested vessels. The right optic thalamus was occupied by a large mass of scrofulous deposit, which gave this ganglion the appearance of being twice as large as it should be, making it occupy all the body of the right ventricle. Its surface was quite smooth and even. On examination, it was found to pass down into the third ventricle, and so far to press downwards, as to protrude the floor of this ventricle, pushing to the left the optic commissure and the corpora albicantia, and displacing them considerably. Moreover, the right crus cerebri seemed entirely involved in the malignant mass. The freedom from hemiplegic paralysis, which seems generally to result from injury or disease of either optic thalamus, and also the "pricking sensations" experienced in the upper extremities, as connected with the acknowledged office which the thalamus bears as one of the centres or foci of sensation, constitute features of interest in this case.

EXAMPLE OF ENCEPHALOID CARCINOMATOUS GROWTHS FROM THE DURA MATER AROUND THE FORAMEN MAGNUM, AND REDUCING THE PASSAGE FOR THE SPINAL CORD TO THE SIZE OF THE LITTLE FINGER,

exhibited also by Dr. J. W. Ogle, who gave the following account of the case:—

The patient, a woman aged 49, was admitted into St. George's Hospital, under the following conditions:—About eight or nine months previously she had been seized with "a fit," and remained unconscious for some time. It was found that she was paralysed on the left side. Of this paralysis she gradually recovered to a great extent, but latterly the right side had become similarly affected, and was even worse than the left side. When brought into the hospital, she could neither walk, stand, nor feed herself, without help. When in bed, it was found that no limb fell down lifeless when lifted up, but she could move any of her limbs, although she could not do this at once on being asked. After exciting her will for a little time, and waiting, her muscles would move responsive to her own desires, but not until a short time had elapsed. It was the same with the muscles of the tongue, for her speech was exceedingly slow and deliberate, but each word distinctly and clearly articulated. On trying to drag her legs up in bed, she could not pull them up together, but first one and then the other yielded tardily. She had very strange sensations of numbness over the entire body, but there was no want of common sensation, nor of power to appreciate impressions made on the skin. These symptoms had much the appearance of hysteria at first, as, along with them, the general health was good, and the functions of life well performed. Cough, with dyspnœa, and accumulations of mucus in the bronchial tubes, came on, and, on one occasion, the evacuations were passed involuntarily. Her power over her muscles became even weaker, but no pain, no paralysis, or anæsthesia, or convulsive action, came on. Sleepless nights, involuntary evacuations, and feelings of faintness supervened, and she gradually, but quietly, sank until she died.

Post-mortem Examination.—The lungs were generally congested, and the bronchial tubes contained much mucus. The bones of the head were natural; the brain was firm and dry, and its convolutions flattened; the ventricles contained an increased quantity of turbid serum; attached to the right surface of the falx cerebri, and indenting the corresponding portion of brain, was a vascular encephaloid tumour, of the size of a large bean, and a similar tumour was also attached to the dura mater, covering the olivary process of the sphenoid bone, slightly elevating the optic commissure; to the dura mater, also, connected with the right and anterior border of the foramen magnum, was a large, smooth, rounded, encephaloid tumour attached, of the same character as the others, and of the size of a small walnut, indenting the cerebellum, and encroaching much on the foramen magnum, and having hooking round it the seventh and eighth pair of nerves on this side; there was also a small flattened mass of a similar structure attached to the dura mater at the opposite border of the foramen, and these together so far encroached on the opening as to reduce it to a triangularly-shaped space, through which the little finger could only just pass. All these growths were covered by a thin layer of arachnoid membrane. There was, moreover, extreme softening of a portion of the spinal cord in the upper part of the dorsal region; in fact, it was quite diffluent. The history of this case seems to offer one or two important points of interest.—1st. The fact that disease showed itself, without exciting cause, in the form of "a fit," sudden loss of consciousness coming on, is curious; as it is somewhat unusual for tumours, owing to their slowness of growth, to indicate their presence in this manner without some additional and ostensible cause. It is not uncommon for scrofulous tumours to remain without suspicion until, by a fall or other injury, or any cause setting up vascular excitement and susceptibility to any irritation in the system generally, the tumour acts as a foreign body, and

declares itself. This, however, was not acknowledged to be the case in this instance. 2ndly. The peculiarity in regard to the motor power exhibited, as if, indeed, the power existed fully, but with a weakness in the will to act, or, as if from obstruction to conducting fibres, the volition was not properly directed along them. The anterior, or sensory portions of the spinal cord would obviously be affected mainly by the tumours at the foramen magnum. 3rdly. The supervention of distressing cough, dyspnœa, etc., with other bronchial disturbances, pointing to some interference with the pneumogastric nerve, and which, from the relation between the above described tumour and the medulla oblongata, might well be supposed to have existed. Several cases have occurred lately in St. George's Hospital, in which, in the course of disease affecting the base of the brain, urgent bronchial symptoms have been excited. Again, it is possible that the disintegrated state of the dorsal portion of the spinal cord may have had its influence in producing the lung affections, by depriving corresponding sections of the thorax of due innervation. It is remarkable, that no more active symptoms of the diffluent state of the cord existed.

VILLOUS CANCER OF THE LARGE INTESTINE.

Mr. Birkett exhibited a portion of colon, upon the mucous membrane of which was a vascular villous growth, which, with a constricted state of the bowel, had produced insuperable constipation. The following history of the case was given:—

A country labourer, aged 58, was admitted on the 16th ultimo by Dr. Babington into the clinical ward of Guy's. He was in tolerably good health, of temperate habits, and apparently well nourished during the last few months; however, he had not felt so well as usual. He was the subject of oblique inguinal scrotal hernia on the right side, for which a truss had been worn, and which had never been strangulated. Twelve months since, he had severe diarrhœa, sickness, and great pain over the whole abdomen. The diarrhœa ceased, but the attacks of sickness and pain recurred at intervals afterwards. He became emaciated, his bowels were irregular in their action, sometimes costive, at others relaxed. Defæcation was performed without difficulty. At Christmas last, his sufferings became aggravated, and, as he did not obtain relief, he sought admission into Guy's. He complained at that time of dull aching pain over the whole abdominal region, which was most severe in the right hypochondrium, and below the umbilicus, where there was tenderness on pressure. At the umbilical ring there was a slight fulness, but no hernia. He had constant nausea, frequent vomiting every two or three hours, and always after taking food. Insuperable constipation had existed for a week, and his abdomen was tense, though not tympanitic. There was a swelling in the right inguinal canal, but no hernia could be detected. Cal. et opii aa gr. j. was given every four hours. Two days after admission a consultation was held by Dr Babington, Mr. Cock, and Mr. Birkett, when the propriety of exploring the swelling in the groin was decided upon, in the hope of finding a small portion of strangulated ileum at the internal ring. This operation was performed by Mr. Birkett, but an old empty hernial sac, containing serum, and very much thickened, was alone discovered. By the introduction of the finger at the internal abdominal ring, the small intestines could be felt greatly distended. In the evening of that day he seemed to be relieved, but the next morning he was worse, and in the afternoon there had been no remission of symptoms, and the constipation continued in spite of a copious enema injected with a long tube. The propriety of opening the ascending colon in the loins was discussed by Dr. Babington, Mr. Couper, Mr. Cock, and Mr. Birkett. When the patient was lying on his back, there was distinct fulness in the region of the cœcum and ascending colon; flatus could be detected in the arch of the colon, but the site of the descending colon was not indicated. The man had vomited an immense quantity of fæcal matter since the exploratory operation. The seat of obstruction seemed to be limited to some spot between the ascending and descending colon. The patient was placed in a position for opening the ascending colon, but in the right lumbar region there was no fulness, nor did sufficient indications exist to admit of the performance of the operation. Pulv. opii gr. iv. was immediately given, and that evening pulv. opii gr. i. was ordered, and continued every two hours. He became, however, weaker and weaker, and died on the fourth day, or about ninety-four hours after admission.

Sectio Cadaveris Sixteen Hours after Death.—Body emaciated. Tissue of lungs generally healthy. Recent peritonitis existed. Several small tubercles a quarter of an inch in diameter, and probably carcinomatous, were noticed in the great omentum. The entire length of the small intestines was greatly distended with fluid fæces, as well as the cœcum and ascending colon. The arch, descending colon, and rectum contained a little flatus and a few scybalæ. The right flexure of the colon was constricted, as if a piece of string had been tied around it. Within this constricted part, a growth was seen attached to the anterior wall of the bowel. This was of a nature described by Rokitansky, Gerlach, and Schuh, under the name "Zottenkreb's villous cancer." The mass consisted of vascular villi, formed of a fibre element, and invested with columnar epithelium. The other viscera were tolerably healthy. No cancer was discovered elsewhere. Drawings made by Mr. Hurst from nature and the appearance of the minute structure were exhibited.

ENCHONDROMA OF THE LEFT TESTICLE.

Mr. Jabez Hogg exhibited a specimen exemplifying this affection of the testis, which had been removed from a gentleman 30 years of age. The disease appeared to have commenced in consequence of an injury received two years previously, while riding. After this accident, the patient suffered considerable pain in the testis and loins. The testis shortly afterwards began to enlarge, and continued to do so till July, 1852, when the gentleman came to London to consult Mr. Hancock, who extirpated the diseased organ. The patient recovered from the effects of the operation without an unfavourable symptom, and has ever since remained perfectly well. Upon examining the morbid structure subsequent to the operation, it was found to weigh 4lbs. 6oz.; and on making a section the disease was found to be of an enchondromatous and cystic character, portions of the mass being occupied by nodules of cartilage, while in other parts cysts appeared, filled with coagulated blood, or containing flocculi, apparently fibrinous in character, or distended with a viscid, light straw-coloured fluid. The microscopic inspection of portions of the tumour revealed cartilage cells dispersed in a fibrous matrix, enclosing eight or ten nuclei, and a few fat globules. The seminal ducts were obliterated throughout the testis, except at the upper and outer border, where a small band of tubular tissue remained. The tubuli in this situation were found on examination to exhibit various stages of alteration, some being slightly and others considerably dilated, while nodules of cartilage, partaking of the outline of the dilated tubes, could be readily discovered and separated; so that it would appear, that all the nodules of cartilage in the tumour were originally developed within the tubuli.

Mr. Adams also exhibited a specimen of enchondroma, of the testis, but he has neglected to furnish any account of it to the Secretary.

DISEASE OF THE MITRAL VALVE.

Mr. Trotter exhibited a heart which presented a thickened and adherent state of the segments of the mitral valve, by which the auriculo-ventricular orifice was much contracted and funnel-shaped. There was dilatation and thickening of the right ventricle, and dilatation, unaccompanied with thickening, of the left. The semilunar valves were healthy, and the pericardium presented a smooth and natural aspect. This specimen was taken from a girl, aged 16, who was admitted into St. Mary's Hospital, July, 1852, under the care of Dr. Chambers, with bronchitis and palpitation of the heart. When eleven years old, she suffered from chorea, and since that period from rheumatic fever. The heart's action was unsteady, and a very prolonged diastolic murmur was audible, being most distinct at the apex. The systolic sound was short, and occasionally accompanied by a murmur. The pulse was observed on August 7th to be only 44, though this might be owing to the digitalis which she was taking. After a time the diastolic murmur became more prolonged, occupying nearly the period of both sounds, and on applying the hand over the apex of the heart a rubbing tremulous sensation was communicated to the fingers. The patient left the hospital September 17th, and died suddenly two days later. The heart alone was examined, as the friends refused to permit a general autopsy.

Dr. Henry William Fuller exhibited specimens of

DISEASED HEART AND KIDNEYS.

The patient from whom these specimens were taken was a man, aged 53, admitted into St. George's Hospital, on the 10th of Nov., 1852. He reported that he strained himself in July, 1852, and soon afterwards experienced pain in the left hypochondrium, with palpitation and dyspnœa. Cough and hæmoptysis after a time supervened. On admission he was exceedingly pale, somewhat anasarcous, and his breathing was much oppressed; a loud systolic murmur was audible over the whole præcordial region, but was most intense at about the second right sterno-costal articulation. It was propagated along the carotid arteries, which were pulsating violently. An intense diastolic murmur also existed, heard loudest in the same situation. The pulse was the characteristic pulse of aortic regurgitation. The urine, which was never passed by the urethra, but escaped by a fistulous opening in the perinæum, was albuminous and contained pus. His symptoms presented little

variety. The extreme pallor of his face increased, the anasarca became more general, the breathing more oppressed, his appetite failed, frequent nausea and occasional vomiting occurred, and cough and extreme dyspnœa prevented his obtaining rest. Thus he became daily weaker and weaker. Ultimately, severe epistaxis commenced, and he then passed into a state of semi-consciousness, in which he remained for the few last days of his life. He died on the 21st of February, 1853. The right pleural cavity was completely distended by straw-coloured serum. On the left side of the chest there existed numerous old and firm adhesions. Both lungs were crepitant throughout. The apex of the right was somewhat puckered, and in its substance was a small cretaceous mass, about the size of a pea. A small quantity of clear serum was found in the pericardium. The heart weighed 21½ ounces; its walls, more especially those of the left ventricle, were enormously thickened; its cavities were not dilated. The valves on the right side were healthy; the mitral valve was slightly opaque, and somewhat thickened by the deposit of a small quantity of atheroma in its substance; but it appeared to be efficient. The aortic valves were also slightly, but *very slightly*, thickened by atheromatous deposit in their substance; but the common attachment of two of them was torn away from the aorta. It appeared doubtful, however, whether this tearing away of their attachment was not done by the knife, inasmuch as what appeared like a *cut* through the inner coat of the aorta was observed to run right across their attachment, and extended about a quarter of an inch on either side. The aorta immediately above the valves was somewhat sacculated, and it was much thickened, and rendered very irregular on its surface by an extensive deposit of atheroma. The kidneys were small and atrophied; granular on their surface, and presented numerous cysts, varying in size from a pin's head to a hazel nut. Under the microscope numberless cysts were seen, which were quite invisible to the naked eye. In some places the uriniferous tubes were tolerably healthy; in others, choked up with fat globules; in others, again, but little trace of uriniferous tubes could be seen, the ordinary secreting structure of the kidney being completely broken up and replaced by cysts. The kidneys, in short, presented admirable examples of that form of disease described by Mr. Simon, in Vol. XXX. of the "Medical and Chirurgical Transactions," under the title of "Cysted Kidney." Neither the pelves of the kidneys, nor the ureters were dilated, affording presumptive proof that, in spite of the complete occlusion of the urethra, no material obstacle to the exit of the urine had existed for a considerable length of time. Mr. Gray has made a careful dissection of the urethra and the fistulous opening in the perinæum, and will give an accurate description of it. The liver was not examined microscopically. It presented a strikingly "nutmeg" appearance; its edges were not rounded. The spleen and the other abdominal viscera were healthy. The physiological interest of the case consists in the enormous amount of disease of important organs which proved compatible with the continuance of life; whilst, in a pathological point of view, it is interesting, as affording at the same time an admirable example of enormous hypertrophy of the heart; and of that extreme degeneration of the kidneys which terminates in cyst development; and of a perfectly impervious urethra, with the formation of a fistulous urinary opening through the perinæum.

Mr. Gray exhibited an

EXAMPLE OF COMPLETE OBSTRUCTION OF THE SPONGY PORTION OF THE URETHRA.

This specimen was taken from the same patient as the preceding ones. During his residence in the hospital, the man never complained of any difficulty in passing his water, nor did he make any allusion to the existence of any disease in the urethra. From these circumstances, unfortunately, no history of the origin of the obliteration could be obtained. During the examination of the body, it was ascertained that there was complete obstruction of the urethra for the extent of four inches. On introducing a probe into the meatus urinarius, it was found that the canal of the urethra was completely obliterated about two inches from the orifice, and this obliteration extended as far back as within an inch of the termination of the spongy portion of the urethra. There was a fistulous orifice in the perinæum, situated immediately behind the scrotum, and on the left side of the perineal space. This orifice was just sufficiently large to admit a full-sized probe, and led into a long and somewhat tortuous fistulous canal, which opened into the front part of the membranous portion of the urethra. The structures in the neighbourhood of the fistulous canal were very dense, hardened, and contracted, apparently from old inflammation. The urethra behind the internal orifice of the fistula was very much dilated, and the prostatic ducts much larger than natural. The bladder was contracted, and its muscular coat much hypertrophied. Two small pouches, formed by a protrusion of the internal lining membrane between the fibres of the muscular coat, were found on the left side, near the base of this organ.

Mr. Trotter exhibited a specimen of

SCROFULOUS CARIES OF THE DORSAL VERTEBRÆ.

The patient, a boy, aged 13, apprentice to a cigar-maker, was admitted, for the first time, into St. Mary's Hospital, July 4th, under Dr. Alderson's care. He dated his illness four months back. On admission, he appeared to be suffering from mesenteric disease; his abdomen was very tense and tympanitic, and not till August 4th could any fair examination of the contents of the abdominal cavity be made, when there were found distinct clusters of enlarged mesenteric glands. On August 29th he spat up some mucus from the lungs mixed with blood, and at the same time there were râles over the right side. He left the hospital relieved on Sept. 12th. Up to this time he had never complained of pain in the back. He was not seen again till Oct. 22nd, 1852, when he again presented himself at the hospital, complaining of a swelling in his right side, which had appeared a month previously, and of pain in the back of five weeks' duration, which, a fortnight later, compelled him to discontinue work. On examination there was found a swelling the size of a small orange, situated over the three lower ribs; and five inches from the spinous processes, which were not displaced. It furnished distinct indications of containing fluid. Pressure on it, or on the corresponding situation on the opposite side, caused pain. There was slight enlargement of some of the cervical glands. He had no cough, nor did he sweat at night. Oct 23rd, a valvular opening was made, and some fluid discharged, which was of a sero-purulent character. Nov. 7th.—Up to this date the quantity of discharge had varied greatly, sometimes being very profuse, and at other times scanty. To-day a diluted injection of tinct. iodine was thrown into the part, which was not followed by any irritation, and this was repeated several times at intervals of a few days. On the 13th two sinuses which had formed were laid open. He caught cold on the 23rd, from which time he was more or less annoyed with cough, expectoration, and hectic symptoms, which ultimately proved fatal on Feb. 19th, 1853. Once or twice, on probing the wound during his life, it was found to pass upwards and backwards for nearly five inches, and was followed by a copious discharge of pus. At one time the discharge had nearly stopped, and then he expectorated very freely, and sometimes a large quantity in a very short time. He never complained much of pain in the back, unless pressure or percussion was employed, which was done at one period, and then over this part dulness and absence of any respiratory murmur were made out. He never showed the slightest signs of paralysis of the lower extremities, nor were any twitchings observed. Urine always acid, and voided naturally. No impairment of sensation in any part. Bowels, with the exception of one day, when he had slight diarrhœa, always obstinately costive.

On *post-mortem* examination, the body was found greatly emaciated, and there was slight œdema of the feet. On examining the wound with a probe, it was found to pass upwards and backwards for five inches, when it was arrested by exposed bone. The six lower dorsal vertebræ were now removed from behind, and the bodies of these, including also the seventh, were found carious on their surface, but quite perfect in form; the articular facets of some of the transverse processes were also carious, and there was hardly a trace of any of the intervertebral substance left between these bones. The bodies of these vertebræ had formed the posterior boundary of an abscess, which extended from the first to the last dorsal, being bounded in front by the roots of the lungs, and part of the lungs themselves, which were separated from it by an adventitious membrane. In the left lung there were not any tubercles. In the right there were tubercles in that portion in relation with the cyst, which was separated from it by a more imperfect membrane than on the left, though, on account of the way in which the vertebræ had been removed, no certain evidence of communication between any of the bronchi and cyst could be ascertained. Only slight adhesions existed over other parts of the lungs. The liver was much enlarged, extending across the abdomen, and weighing 5lb. 13½oz.; it afforded a good specimen of the scrofulous or bacony liver. The gall-bladder was filled with bile of deep yellow, and contained slight traces of cholic acid. The mesenteric glands were small, and externally of an ash-grey colour; on cutting into them, they were found to consist of a cheesy, tuberculous-looking matter. The points of interest in this case appear to be the condition of the mesenteric glands at the time of death, having, twelve months before, been so large as to be easily detected through the abdominal walls; also, the state of the lungs, no tubercles having been found in either apex, but only

in that portion of the right which appeared to be in direct connexion with the cyst; the scrofulous liver, enlarged glands in the neck, and the vertebræ, all showing how thoroughly the patient was saturated with scrofula; lastly, the comparatively slight disease of the bodies of the vertebræ, while the intervertebral substance was almost wholly destroyed. During his whole illness, there was no sign of injury or affection of the spinal cord, the means of diagnosis being the state of his health, the situation of the swelling, and the pain produced there on percussion.

The Society then adjourned.

MEDICAL NEWS.

Royal College of Surgeons.—The following gentlemen having undergone the necessary examinations for the diploma, were admitted Members of the College at the meeting of the Court of Examiners, on the 18th inst.:—

Buck, Anson, Toronto, Canada.
Clarke, John James, Hon. East India Company's Service.
Crouch, George James, Brighton.
Guy, Henry, London.
Jackson, Edward, Ecclesfield, Yorkshire.
Jones, Arthur Trefusis, Brompton Barracks, Chatham.
Moore, George, Tonbridge Wells.
Mullinex, Thomas, Camberwell.
Ricketts, Charles, South Lambeth.
Williams, William Henry, Crickhowell, Brecon.
Winter, John Newnham, Brighton.

The following gentlemen were admitted members on the 23rd instant:—

Bethel, Frederick, Lewisham.
Butcher, Joseph Baldock, Gravesend.
Cory, Frederic Chas., Nassau-place, Commercial-road.
Cranmer, Frederic Augustus, Fulbourn, Cambridgeshire.
Davies, Thomas Geo. David, St. Andrew's-court, Holborn.
Gummon, Benjamin William, Wrexham, Denbighshire.
Hofmann, Octavius William, Reading.
Johnston, Joseph Talkeld, Penrith, Cumberland.
Pritchett, John Benson, York.
Rendell, William Jasper, Wadebridge, Cornwall.
Roe, John Withington, Malpas, Cheshire.
Tibbits, John, Warwick.
Turner, Charles, Cawbridge, Glamorganshire.

The Fellowship of the Royal College of Surgeons.—The next classical and mathematical examination for this distinction will take place at the College on Monday and Wednesday next. The professional examination will take place on Monday and Wednesday, the 2nd and 4th of May next.

The Hunterian Museum.—It is interesting, as showing the increasing taste for rational recreation at the present day over a former period, to know, that nearly 200 persons visited the above anatomical collection on Easter Monday last, and conducted themselves to the entire satisfaction of the officials.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, 24th March, 1853:—

Clarke, Thos. Fernandez, Leighton Buzzard, Beds.
Johnston, Alexander, Birmingham.
Naters, Wm. Edward, Sandyford, Newcastle-on-Tyne.
Watson, George Alder, Scarborough, Yorkshire.

APPOINTMENTS.

Medical—Mr. Carsten Holthouse has been elected Assistant-Surgeon to the Westminster Hospital, in the vacancy occasioned by the promotion of Mr. C. G. Guthrie to the Surgeoncy vice Mr. B. Phillips resigned. Mr. Harvey Ludlow, F.R.C.S.E., has been unanimously elected surgeon to the Metropolitan Free Hospital.

Naval.—Assistant-Surgeon Robert W. Beaumont (1848), recently serving in the Castor, 50, on the Cape of Good Hope station, to the Naiad, 42, store-ship, stationed at Callao.

Military.—4th Regiment of Dragoon Guards: William Bruce Armstrong, gentleman, to be Assistant-surgeon, vice Flyter, deceased.

DEATHS.

Bullin.—March 29, at 26, Farringdon-street, Francis Bullin, Esq., surgeon. M.R.C.S. Eng. 1825; L.S.A. 1824.

Grant.—March 26, at the house of his father, 21, Thayer-street, Manchester-square, Augustus Grant, Esq., surgeon, aged 26. M.R.C.S. Eng., 1847; L.S.A., 1847; Surgeon to St. Marylebone Workhouse.

Hay.—In December last, of yellow fever, — Hay, Esq., Assistant-Surgeon of H.M.S. Highflyer.

Leggatt.—March 13, at Eastry, Kent, Richard S. Leggatt, Esq., surgeon, aged 67.

Robinson.—February 19, at 10, Oxford-street, Cheltenham, Simon Davie Robinson, M.D. Aberdeen, 1824.

Ratcliffe Infirmary, Oxford.—The Directors of the Buckinghamshire and Bletchley Railway have voted a donation of one hundred guineas to the Oxford or Ratcliffe Infirmary, for aid rendered to the sufferers by accidents on their line.

Munificent Bequest to the City of London Medical Charities.—A munificent bequest has just been distributed among City charities by the trustees of the will of Miss Hardwick, late of Chesterfield, in Derbyshire. This lady's father was in early life a surgeon in the mercantile navy, and, for some years before his decease, carried on business in Bishopsgate-street as a wholesale chemist. Miss Hardwick, his only daughter, at his death, withdrew herself entirely from the world, and lived an eccentric life in a small cottage, where her property was permitted to accumulate, as she did not expend upon her establishment a hundred a-year. She died about a year ago, in the mayoralty of Alderman Hunter, leaving the bulk of her property to the Lord Mayor of London, and the Chamberlain for the time being, to act with her executor, Joseph Shipton, Esq., an eminent solicitor at Chesterfield, as trustees, to be distributed among such of the charities of the City of London as they might in their discretion select for the purpose. The executor immediately placed at the disposal of the trustees the sum of 18,000*l.*, the apparent amount of the residue, after the satisfaction of trifling debts and legacies left by the testators, and the following is a list of the medical charities:—Hospital for Diseases of the Chest, 550*l.*; St. Bartholomew's Hospital, 1100*l.*; ditto Samaritan Fund, 300*l.*; ditto ditto Maternity Charity, 220*l.*; Royal Maternity Charity, 330*l.*; City Truss Society, 330*l.*; Royal General Dispensary, 330*l.*; Western City Dispensary, 220*l.*; City Dispensary, Queen-street, 330*l.*; Hospital for Diseases of the Skin, 550*l.*; Farringdon General Dispensary, 330*l.*; Metropolitan Free Hospital, 550*l.*; Metropolitan Dispensary, 330*l.*; London Ophthalmic Hospital, 550*l.*

The Income-tax (Worcester).—A meeting of the members of the Medical Profession in the city and county of Worcester was held on Thursday last, in that city, at the instance of the Council of the Provincial Medical and Surgical Association, to petition Parliament against the retention of the Income-tax in its present form. The chair was occupied by Sir Charles Hastings, M.D.; and petitions in accordance with the object were adopted.

Northern Dispensary, Euston-square.—Two physicians are to be elected for this institution on the 4th of May, in the place of Dr. Manson, deceased, and of Dr. Goodfellow, resigned.

Fever.—Portsmouth, March 30.—The Agamemnon, 91, screw two-decker, Captain Sir Thomas Maitland, C.B., continues infected with sickness, which, we regret to state, is on the increase. It seems a most remarkable fact, that a vessel infected with contagious fever should have been brought into a thickly populated harbour, and no other means adopted to abate the visitation than merely turning the crew into a hulk, and lashing that hulk to the infected ship, or *vice versa*, and fumigating her. Why has not a board of medical officers been appointed to inquire into the cause of the fever, with the view to its abatement? We believe upwards of 300 of the Agamemnon's crew are still "down with the fever," even at this distant date since her breeding the infection. Dr. Sir William Burnett, the Director-General of the Medical Department of the Navy, has opportunely arrived at the port to-day, to institute inquiry personally into this case, and is extending the accommodation within the Naval Hospital at Haslar for patients afflicted with the class of fever which is going through the Agamemnon's crew. The extraordinary case this ship represents ought to be made the subject of a Parliamentary inquiry.

Intramural Interments.—In the House of Commons on Friday, in answer to a question put by Mr. Whalley, Lord Palmerston said the Government were impressed with the importance of carrying into effect the act of last year, and he had given instructions by which a member of the Board of Health was inspecting, one after another, all the graveyards of the metropolis. In proportion as the reports were received he should take the necessary steps under the Act for obtaining orders in Council for shutting up the graveyards that were reported to be unfit for

further use. (Hear, hear.) Judging of the future from the past, he should expect that in a very short period all the graveyards would be closed. (Hear, hear.) In regard to similar measures for the country, there was at present no power vested in the Government for that purpose; but it would require consideration whether, in the course of the session, it would or would not be expedient to ask for any similar powers for the country. (Hear, hear.)

THE BURIAL GROUNDS IN THE METROPOLIS.—The following communication has been addressed to the parochial authorities of the parish of St. Mary, Islington, on this subject; and, from the steps now being taken to close some of the worst of the burial-grounds in the metropolis, it appears that the public may hope to obtain some mitigation of the intolerable evils of intramural interments:—"Whitehall, March 17.—Sir,—In compliance with the provisions of an Act made and passed in the 15th and 16th years of Her Majesty's reign, entitled 'An Act to Amend the Laws concerning the Burial of the Dead in the Metropolis,' I hereby give you notice, by direction of Viscount Palmerston, one of Her Majesty's Principal Secretaries of State, that it is his intention to represent to Her Majesty in Council that, for the protection of the public health, burials in the Roman Catholic burial-ground of St. John the Evangelist, and in the new Bunhill-fields burial ground, in the parish of St. Mary, Islington, should be discontinued after the 31st day of December next.—I am, &c.,—H. WADDINGTON.—J. Layton, Esq., Vestry-Clerk of St. Mary, Islington."

TESTIMONIAL TO PROFESSOR LIEBIG.—It is in contemplation to present an honorary testimonial to Professor Liebig on the occasion of his retirement from the University of Giessen and his appointment at Munich. The Committee which has been appointed to carry out this intention includes most of the scientific celebrities of the present day, and Professor Graham has been appointed the chairman. The subscription-list is already large, and will no doubt become much larger when the contemplated object becomes known.

MORTALITY IN PUBLIC INSTITUTIONS for the week ending March 26:—

	Males.	Females.	Total.
Workhouses	77	76	153
Military and Naval Asylums	9	..	9
General Hospitals	22	17	39
Hospitals for Special Diseases	8	5	13
Lying-in Hospitals	1	2	3
Lunatic Asylums	3	3	6
Military and Naval Hospitals	9	..	9
Hospitals and Asylums for Foreigners	..	1	1
Prisons	2	..	2
	131	104	235

MORTALITY NOTABILIA.—The deaths in London, which had declined to 1274 in the previous week, rose again in the week that ended last Saturday to 1321. In the ten corresponding weeks of the years 1843-52, the average number of deaths was 1165, which, with a correction for increase of population, gives a mortality for last week of 1282. The actual number of deaths registered last week, therefore, exceeds the estimated amount by 39. In comparing the results of the last two weeks, in reference to fatal diseases, there appears a considerable uniformity, except in phthisis, the mortality of which rose from 131 to 153, and pneumonia, which declined from 101 to 88. Bronchitis numbered, in the two weeks respectively, 174 and 175 deaths, which is double the average at this period of the year; hooping-cough 70 and 65; typhus 56 and 53. The mortality from scarlatina continued the same, and amounted in each week to 37. The son of an oilman, aged 4 months, died at 135, High-street, Kent-road, on the 21st of March, of "cholera Anglica" (4 days). Twelve deaths were registered in the week, that occurred in the London Fever Hospital, Islington, 3 of which took place on the 17th of March, 2 on the 19th, 1 on the 21st, 1 on the 22nd, 1 on the 23rd, 2 on the 24th, 1 on the 25th, and 1 on the 26th; 3 were caused by scarlatina, 1 by measles, and the remaining 8 by typhus. Mr. Watts, the registrar, writes as follows:—"The medical officers remark, that typhus, or spotted fever, is becoming more prevalent, and cases of this description are coming in daily from all parts of the metropolis. There are now more patients in the new hospital than the old building could have accommodated; but there is ample room, and every requisite (excepting funds) for the treatment of double the number on an emergency. It is only necessary that the public respond to the appeal made to it. At the Small-pox Hospital, Upper Holloway, only one death has occurred during the whole quarter." In the sub-district of Haggerstone West, at 8, Savannah-place, on the 10th of March, the wife of a shoemaker, aged 67 years, died of "diseased liver" (3 years). Mr. Bowring, the registrar, says: "This corpse has been kept eighteen days in a small two-roomed house. How many inmates there are I have not been able to ascertain."

DEATHS *in the Metropolis for the week ending Saturday, March* 26, 1853.

CAUSES OF DEATH.	MARCH 26. 0	15	60	All Ages.	Sum of Ten Weeks.
ALL CAUSES	598	420	284	1321	11647
SPECIFIED CAUSES	596	420	283	1299	11597
1. Zymotic (or Epidemic, Endemic, and Contagious) Diseases	169	49	15	233	2047
SPORADIC DISEASES:					
2. Dropsy, Cancer, and other Diseases of uncertain or variable seat	4	21	18	43	555
3. Tubercular Diseases	84	125	8	217	1959
4. Diseases of the Brain, Spinal Marrow, Nerves, and Senses	69	36	40	145	1387
5. Diseases of the Heart and Blood-vessels	3	28	24	55	421
6. Diseases of the Lungs and of the other Organs of Respiration	133	89	100	322	2073
7. Diseases of the Stomach, Liver, and other Organs of Digestion	35	24	12	71	653
8. Diseases of the Kidneys, etc.	...	8	4	12	98
9. Childbirth, Diseases of the Uterus	...	11	2	13	124
10. Rheumatism, Diseases of the Bones, Joints, etc.	1	3	...	4	82
11. Diseases of the Skin, Cellular Tissue, etc.	...	2	1	3	17
12. Malformations	5	...	...	5	30
13. Premature Birth and Debility	26	3	...	29	247
14. Atrophy	32	...	7	39	213
15. Age	...	...	45	45	561
16. Sudden	8	2	...	10	373
17. Violence, Privation, Cold, and Intemperance	27	19	7	53	757
CAUSES NOT SPECIFIED	2	...	1	22	50

BOOKS RECEIVED.

Homœopathy: its Tenets and Tendencies. By Dr. Simpson.
Warrington's Obstetrics.
Hannover on the Microscope.

TO CORRESPONDENTS.

Our next Article on Drugs and their Adulterations will appear in the ensuing week.

Students, King's College.—Messrs. Twining, Bankers, 215, Strand, will receive your subscription.

W. A.S.—1. Neither of the diplomas mentioned confers any right to practise medicine in England. 2. Proof of an actual apprenticeship is not necessary for the purpose of passing at the Apothecaries' Hall. 3. No further qualification would be conferred by becoming a Licentiate of Midwifery.

A Young Student—If the party alluded to is legally qualified to practise medicine, the Court of Examiners will admit you to examination.

Comos.—Avoid the quack as you would avoid a pestilence. Consult a respectable practitioner.

An Apprentice.—The Summer Courses generally begin in London on the 1st of May.

W. H. Bellot, Esq.—The note was forwarded to the office in question.

Dr. Tanner's Case of Ovariotomy shall be published next week.

J. L. Levison, D.D.S., etc., Brighton.—If you will embody all your facts in one concise and short paper, on the Mortality of Children during the period of the first dentition, we shall be happy to insert it. As regards a series of communications, however, our space will not permit of our compliance.

Mr. Bulley's case shall appear shortly.

[To the Editor of the Medical Times and Gazette]

SIR,—Is it supposed that students of medicine have nothing to do but to accommodate themselves and their time to the unreasonable and over-bearing conduct of the officer at the College of Surgeons? I and several fellow-students, complying with the order of the College, went there to-day to register, and to obtain schedules. We were then told in a peremptory manner, we might walk down again on Saturday for them, as they had not yet been prepared. No doubt this is highly satisfactory to the authorities of the College, but not so to Your obedient servant,

A FIRST YEAR'S STUDENT.

P.S.—Trusting this may meet with your kind consideration, I herewith enclose my card.

[We have received several other letters on this subject.—ED.]

COMMUNICATIONS have been received from—
Dr. WALSHE, University College Hospital; W. RITTER, Esq., Gracechurch-street; JOHN BRICKWELL, Esq., Sawbridgeworth; EDWARD J. BLYTH, Esq., Crawley, Sussex; A QUALIFIED ASSISTANT; JAMES MCBEAM, Esq., St. Andrew's; DELTA; A COUNTRY PRACTITIONER; Dr. MELLUISH, York-road, Lambeth; F. A. BULLEY, Esq., Reading; C. TEDBURY, Esq., Wilson street, Finsbury-square.

ORIGINAL LECTURES.

LECTURES
ON THE
ORGANIC DISEASES AND FUNCTIONAL DISORDERS OF THE STOMACH.

By GEORGE BUDD, M.D., F.R.S.,
Professor of Medicine in King's College, London.

Arrangement of the Subject—Congestion of the Stomach, resulting from an Impediment to the Course of the Blood through the Liver or the Chest—Congestion resulting from other Conditions.

The organic diseases and the functional disorders of the stomach constitute a large proportion of human ailments. The stomach sympathises readily with the rest of the body, of which it may be regarded as the servant and minister. A state of nervous exhaustion, or of fever, suspends the secretion of the gastric juice; and disease of the liver, of the kidney, or of the brain, may derange that secretion almost as much, and cause vomiting quite as urgent, as disease originating in the stomach itself. But, in addition to all such causes of disturbance, the stomach is often directly injured by the excesses to which the sensual gratification and the social enjoyment connected with indulgence of the appetite so frequently lead; and sometimes, from conditions which have not yet been determined, an ulcer forms in it, or it becomes the seat of a cancerous growth. Disorders of the stomach, either primary, or occurring as complications of other diseases, are, in consequence, continually presented to our notice. In passing them under review, I shall speak first of those which depend on organic disease, or on some visible or palpable change in the coats of the stomach; and afterwards of those, the so-called functional disorders, which result from derangement of the general health, or from disease originating in some other part of the body.

Of organic changes in the stomach, one of the simplest is *congestion;* that is, a plethora of the blood-vessels; which is a very common morbid condition, and is very important with reference to the medical treatment of various diseases.

Congestion of the stomach, as of other organs which have an active function, may result from very different conditions. A congestion, or turgescence, of the blood-vessels of the stomach, may obviously result from any mechanical impediment to the return of blood from the stomach to the heart. The congestion thus arising is of the simplest kind—the kind most intelligible to us—and we may, therefore, fitly consider its effects first.

A striking instance, showing some of those effects, is recorded in an admirable paper on this subject by Dr. Yellowly, in the Fourth Volume of the "Medico-Chirurgical Transactions."

Philip Nicholson, a man about 30 years of age, was hanged on Pennenden Heath, near Maidstone, on the 23rd of August, 1813. He was greatly convulsed while hanging, and died unusually hard. The body was opened the following day at 3 o'clock, in presence of Dr. Yellowly, who thus describes the state of the stomach:

"The whole of the abdominal viscera were deeply congested with dark-coloured blood.

"The external vessels of the stomach were very turgid, and its inner surface was everywhere coated by dark-coloured, clotted blood. This adhered pretty firmly to the mucous membrane, but came off, though with some difficulty, when the stomach was put into water. Much of it, however, continued to hang about the folds in the great end, though the other parts were freed. Where the blood was washed off, the whole surface of the mucous coat was red."

In this instance, great congestion of the stomach was rapidly brought on by strangulation, and its most striking effects, as seen in the dead body, were uniform redness of the mucous membrane and the extravasation of clotted blood upon it. This clotted blood coated the whole inner surface of the stomach, and adhered firmly to it, and had evidently escaped, not at one spot, from a large ruptured vessel, but by exhalation from every part of the free surface of the membrane.

Vomiting of blood, or the discharge of blackened and altered blood from the bowel, is now and then consequent on a severe epileptic fit, and evidently results, as it did in the instance I have just cited, from sudden and great congestion of the stomach, caused by the long suspension of breathing which severe epileptic fits occasion.

[No. 706.—New Series, No. 145.]

Congestion of the stomach, of the same kind, but more gradual in its occurrence, and generally less in degree, always exists in persons with the "hob-nail," or gin-drinker's liver. In this disease, the current of blood through the liver is impeded, and the stomach and intestines, which send all their blood to the portal vein, are consequently kept in a state of congestion. This frequently leads to an oozing of blood from the mucous membrane, and it now and then happens, that the hæmorrhage is abundant, and that a great quantity of blood is brought up by vomiting. I have met with several instances of cirrhosis, in which death was caused, or at least was very much hastened, by hæmorrhage of this kind, and in which the sound state of the stomach after death showed that the blood had exhaled from the unbroken surface of the mucous membrane. An abundant hæmorrhage is, however, comparatively rare. The congestion is slowly produced, and the minute vessels most probably grow gradually stronger, so as to bear the additional stress upon them. Far more commonly, the oozing of blood is slight in degree, but may continue for many days, or even weeks. During this time the patient has constant pain at the epigastrium, and may vomit daily a small quantity of blackened blood, which is generally mixed with mucus, or is in very small, distinct coagula, that consist of the colouring matter of the blood, and also of its albumen, which is coagulated, as it exudes from the vessels, by the acid secretions of the stomach. Occasionally, the stools also are stained with blood, which may have come from the stomach, or from some part of the bowel itself.

But it often happens in such cases, that the extravasated blood passes out of the body unnoticed. Too little is poured out at a time to cause vomiting. It is voided, therefore, by the bowels, and in its passage through them gets mixed with other matters, and is, besides, so much altered, that it is no longer recognised as blood.

The same thing may happen in organic diseases of the heart, and in diseases of the lung, where the passage of the blood through the chest is much impeded. The stomach is kept in a state of congestion, and an oozing of blood from its mucous membrane now and then takes place. The blood extravasated at any one time is generally so small in quantity that it does not excite vomiting, and may thus pass out of the body unnoticed. Now and then, however, especially where the impediment to the circulation attains a high degree in a person not reduced by previous illness, the hæmorrhage is abundant, and blood is brought up in large quantities by vomiting. A few years ago I witnessed profuse vomiting of blood, clearly brought on in this way, in a young man who was dying of rheumatic pericarditis, and who had for some days been suffering from the distressing fits of suffocation which large effusion into the pericardium occasions.

In the spring of the present year the same thing happened in a poor girl, seventeen years of age, named Emma Garrett, who died in King's College Hospital of valvular disease of the heart, the result of rheumatic fever, which she had twelve months before. She was brought into the hospital on the 4th of November, 1851, suffering much from pain at the præcordia, palpitation, and difficulty of breathing. On examination it was found that the heart was much enlarged, and that there was a systolic bellows-sound, which was loudest at the apex of the heart and along its left edge, and on the left side of the chest behind—indicating regurgitation of the blood through the mitral orifice. On the 27th of November, acute pericarditis came on, and a "to-and-fro" sound was heard. From this time the breathing was much embarrassed, and there was constant catarrh, and now and then, for a time, solidification of the lower lobe of one of the lungs.

On the 2nd of March, she began to spit blood, and continued to do so until her death, which happened on the morning of the 9th. For two days before her death, she had repeated vomiting of blood, which was clearly effused in consequence of the congestion of the stomach produced by the great impediment to the passage of the blood through the chest; for, when the body was examined after death, no ulcer, or even abrasion, of the mucous membrane of the stomach was found.

Thus, whether congestion of the stomach, arising from hindrance to the return of its venous blood, be brought on suddenly or slowly, whether the impediment be in the liver or in the chest, one of its most striking effects is an oozing of blood from the free surface of the mucous membrane. When the blood is poured out in large quantity, it causes

sickness, and is thrown up—or most of it is thrown up—by vomiting. When it is poured out little at a time, it passes through the bowels, and is frequently, perhaps generally, unnoticed.

It has long been remarked, that mucous membranes are the only tissues in which blood escapes readily from the vessels. Hæmorrhage never occurs in consequence of mere congestion, however it be brought on, in the serous or in the synovial membranes; hardly ever in the brain, in the substance of the liver, or in some other of the viscera.

The different mucous membranes vary much in their liability to hæmorrhage from congestion. As a general rule, the liability to hæmorrhage is greater the more active the function of the membrane. Some mucous membranes, as those of the œsophagus, the urethra, the urinary bladder, serve as a mere lining, and are little disposed to bleed, except from some direct injury done to their surface. Others, as those of the stomach, of the intestines, of the uterus, which, having a more active function, and furnishing abundant secretions, are naturally more vascular, bleed readily from mere passive congestion or fulness of their vessels.

No tissue in the body is so prone to hæmorrhage, at all times and at all ages, as the mucous membrane of the stomach. But, in all mucous membranes alike, it is only on the free surface of the membrane that the blood escapes in any quantity. In cases of gin-drinker's liver, where blood has been oozing almost constantly for several days, or even weeks, from the open surface of the membrane, hardly a drop filters into the cellular tissue beneath; and after death the stomach often exhibits no stain or trace of the hæmorrhage of which it had been lately the seat.

It has not yet, that I know of, been shown what is the peculiarity of structure in mucous membranes that allows the ready issue of blood from their vessels; or why it is that the blood issues only on the open surface of the membrane; why it is not poured out, also, on its under surface, so as to collect in the loose cellular tissues in which the vessels run.

Late researches on those structures have shown, that mucous membranes consist of a layer of epithelium spread like a pavement on a thin and structureless membrane, which serves to support it; and that the blood-vessels run and ramify in the cellular tissue behind. From this it might have been expected, that blood would be more apt to filter into the cellular tissue between the coats of the stomach, than to exude from the open surface of the mucous membrane.

The cause of the blood escaping only on the open surface of the membrane is clearly some mechanical condition. However the congestion be brought on, whether it be by impediment to the return of blood from the stomach or not, it is only on the open surface of the mucous membrane that the blood issues in any quantity. Again, if the stomach be injected with coloured size in the dead body, the size will ooze readily from the open surface of the mucous membrane, but seldom gets extravasated in any quantity on its under or attached surface, so as to collect between the mucous membrane and the coats beneath.

Another circumstance of much interest and importance is, that, although mucous membranes, and that of the stomach in particular, allow blood to issue readily from them, they do not, in states of mere congestion, however brought on, allow the serum of the blood, or the water of the blood, to escape without the red corpuscles.

In examining the bodies of men who have died with the gin-drinker's liver, I have often been surprised, that while the belly was enormously distended by a dropsical fluid in the peritoneal sac, and while the coats, even of the intestines, or of some parts of them, were œdematous, there should have been no flux, no drain of fluids from the bowel itself, beyond the scanty oozing of blood of which I have already spoken.

When the stomach and intestines are long kept in a state of congestion, from a bar to the passage of the blood through the liver or the chest, the nutrition of the mucous membrane is less active than in health, its peculiar and solvent juices are more sparingly secreted, and, in consequence, digestion is slower and more feeble; and unless an inflammatory condition of their lining membrane be caused by the irritation of imperfectly digested food, the bowels are apt to be costive.

Analogous effects are produced by a state of passive congestion in every other organ. The unnatural fulness of the vessels, and the slowness of the current through them, lessen the activity of the nutritive processes, limit the supply of oxygen which is essential to the development of every living force, and thus diminish the *power* of the organ, of whatever kind that power may be.

If, from organic disease of the heart, the brain be kept in a state of congestion, the evolution of the nervous force is hindered; the feelings and sensations are blunted, the will is less energetic, the muscular movements are less vigorous and precise, and the intellectual power is diminished; and all this to a certain extent independently of the increased pressure on the nervous substance which a state of congestion occasions.

Again, if the vessels of the lungs be kept congested, dropsical fluid may collect in the sac of the pleura, or even in the spongy tissue of the lung itself, which will, of course, clog the lung and shorten the breath; but, quite independently of this, the mere state of congestion,—the distension, that is, of the capillary vessels, and the slowness of the current through them,—hinders the proper function of the lung, lessens the absorption of oxygen and the exhalation of carbonic acid, and, if the congestion be great, causes distress, or difficulty, in breathing.

So, again, if the kidney be kept in a state of congestion, some of the albumen, and of the red corpuscles of the blood, may escape with the urine; but the excretion of water, and of the proper saline constituents of the urine, is diminished.

Analogous effects are produced in the muscles. In cases of organic disease of the heart, where the current of blood through the chest is greatly impeded, the muscles are inadequately nourished, and, in consequence, they soon tire, and only slowly recover their fatigue. If the congestion be long kept up, the muscles waste. In diseases of the heart, the blood returns less freely from the legs than from other parts, and when the œdema of the legs, which is so common in these diseases, goes off for a time, the muscles are always found flabby and small, much more shrunk than the muscles of the arms, and of other parts of the body.

The effect of impeded circulation, in everywhere hindering the processes of nutrition, is, perhaps, best seen when disease of the valves of the heart comes on in childhood. From that time, if the disease should much impede the course of the blood through the chest, the child is checked in its growth, and dwarfed, and the age of puberty is much deferred.

It is then, in accordance with a general law, that when the stomach is kept in a state of passive congestion from a bar to the current of the blood through the liver or the chest, the secretion of the gastric juice is diminished, the stomach can digest less food, and requires longer intervals of rest.

It is another fundamental effect of these conditions, that, in the same measure in which the proper nutrition of the texture is hindered, is its power enfeebled to resist an injurious influence of any kind.

If, under these circumstances, food is taken which is difficult of digestion, or more food is taken than the stomach can master, some of it remains long undigested in the stomach, and irritates, and at length inflames the mucous membrane. The congestion of the stomach is thus increased; the afflux of blood, and the more complex changes caused by inflammation, are added to the pre-existing passive congestion; and the digestive power, if not entirely suspended, is rendered very much weaker than it was before.

Again, if alcoholic drinks be taken in undue quantity, as they often are in the hope of supporting the strength, or if irritating medicines be given, they are only slowly absorbed into the general circulation, and are thus especially apt to exert an injurious action on the coats of the stomach itself.

In the treatment of all diseases which cause much impediment to the passage of the blood through the liver or the chest, it is very important that the congestion of the stomach and the feebleness of digestion that necessarily results from it, should be borne in mind. The congestion of the stomach is, indeed, secondary, and is relieved by whatever lessens the impediment to the circulation on which it depends; but, while it lasts, both food and physic should be regulated with reference to it. A sparing and easily digestible diet, and, when the nervous system can bear it, total abstinence from fermented drinks, is the regimen best suited to such cases. When alcohol is necessary, it should be given sufficiently diluted; and when mercury and diuretics are deemed expedient for the object of relieving the embarrassed circulation, their action on the stomach should be carefully watched.

[To be continued]

ORIGINAL COMMUNICATIONS.

CASES OF HÆMORRHAGE AFTER DELIVERY, ACCOMPANIED BY SEVERE AFTER-PAINS.

WITH REMARKS.

By FRANCIS H. RAMSBOTHAM, M.D., F.R.C.P.
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[Continued from page 317.]

I shall proceed, even at the risk of being thought tedious, to report a few more cases on this interesting subject; because the peculiar combination of circumstances which I wish to bring more particularly under the notice of the junior members of the Profession is not mentioned in any of the scientific treatises on obstetric medicine with that prominence which it deserves, and, indeed, by most writers, is entirely passed over. All speak of relaxed uterus after delivery giving rise to dangerous hæmorrhage; but very few allude even to the possibility of flooding occurring with a contracted uterus, or under the presence of severe after-pains. Burns says, indeed, that "sometimes a partial or irregular contraction of the uterine fibres takes place, and the person is tormented by grinding pains, accompanied by repeated hæmorrhage;" and, again, when speaking of after-flooding, he remarks, "It will in general be found, that the uterus is affected with spasm." Velpeau tells us, that he has twice seen hæmorrhage manifest itself from the uterus after the passage of the placenta, "quoique la matrice fut exactément revenue sur elle-même, et contractée." Gooch gives two cases of labour that occurred in the same woman, in which, though the uterus acted in the ordinary degree, profuse hæmorrhage nevertheless occurred; and he considers the cause to have been "a want of tranquillity in the circulation." Dr. Rigby, as well as Professor Michaelis, of Kiel, speak of such cases, and also attribute them to an over-distended state of the circulation; as does Ingleby, who has given a short chapter on "hæmorrhage with a firm contraction of the uterus." He says, that the subject does not obtain a distinct notice, except in Dr. Gooch's work on diseases of females; that this species of hæmorrhage occurs under a forcible state of the circulation; and that in this condition of the system "it is not incompatible with contraction, under that small and firm state of the organ which commonly indicates security." He recommends a cooling system to be pursued during labour, and "venesection, if needful."

I have myself spoken of the kind of cases that I am now adverting to, in my work on obstetric medicine and surgery; but I think they deserve a more particular notice than has as yet been awarded to them; and it appears to me, also, that the publication of a history of the cases themselves tends to place the subject in a more clear and intelligible form than any other mode of description would do."

Doubtless, a hurried and excited state of the circulation during labour may predispose to uterine hæmorrhage after the removal of the placenta; but in none of the instances I have adduced did that condition obtain. Some of the patients, indeed, were the very reverse of robust, possessing even a leuco-phlegmatic habit of body, and a languid circulation; so that Dr. Gooch's remarks will not, at any rate, apply to them. This was particularly evident in the next case that I shall report.

Case 8.—On July 17th, 1851, at seven a.m., I arrived at the house of a patient of my own, at Upper Clapton, in labour of her fourth child; a lady of delicate constitution, though good general health. The membranes had broken two hours, the os uteri was dilated to the size of a half-crown piece, and the child was born within an hour. The placenta passed in ten minutes, without any assistance, wholly down into the vagina, from whence I soon removed it. There was very little discharge, and not more than the average amount of pain on its expulsion; and the uterus contracted most satisfactorily. She remained comfortable for about half an hour; at the expiration of that time, however, she began to experience *violent uterine pains* every three or four minutes; and, on being summoned up-stairs, I found her in extreme agony, writhing about the bed. The uterus was larger than when I had left her, half an hour before, and very hard. It soon, however, relaxed somewhat, and became softer under the hand. There was a copious draining of red-coloured serum going on. The uterus continued to act strongly at intervals of three or four minutes, with intolerable pain; and she was begging that something might be done to relieve her. Cold and pressure aggravated, instead of diminishing, the suffering; and, in about a quarter of an hour, faintness supervened. I then introduced my hand fully within the uterine cavity, meeting with very little resistance, and took away about three ounces of very firm coagulum. There was also a quantity of coagulated blood, of the ordinary character, in the vagina. The passage of the hand gave but trifling pain in comparison with that produced by the uterine contractions upon the extravasated mass; and, immediately it was withdrawn, those violent contractions, as well as the attendant suffering, entirely ceased. The discharge was put a stop to, also; and I left her, in two hours, disposed to sleep. Her recovery was good and speedy.

Case 9.—At half past eleven p.m., December 8th, 1851, I was summoned to a lady in Bow-road, whom I had engaged to attend of her fifth child, and who had flooded considerably in all her previous labours. She had been ill all day; the os uteri was dilated to the size of a crown-piece, soft and thin; the membranes broke at half-past two a.m., and she was delivered at three. The funis was coiled three times around the child's neck; and, as I could neither slip a loop of it over the head, nor dilate the folds sufficiently for the shoulders to pass through them, I was compelled to divide it before the body was expelled, lest the child should be strangled. A large gush of blood took place almost immediately after the birth; and, as some hæmorrhage continued, in less than five minutes I removed the placenta from the uterus; it was slightly adherent. The organ contracted well, and the flooding ceased for a time. Relaxation of the fibres, however, occurred in about fifteen minutes; a draining of blood commenced, and she soon began to complain of violent *after-pains*; nevertheless, the oozing continued. The uterus acted powerfully every four or five minutes, causing great suffering; and, in about half an hour, after trying cold applications without avail, I introduced my hand into the cavity, and removed three or four ounces of solid, tough clots from within it, and an equal quantity of a softer description from the vagina. From that time both the pains and the draining ceased entirely; the faintness gradually disappeared, and she recovered well.

Case 10.—At ten p.m., September 11th, 1847, I was sent for by a professional friend to a patient at Dalston, who had been delivered of her first child after a tedious and painful labour, at half-past four on the same afternoon. The placenta was thrown off naturally, and the uterus contracted well. Her attendant stayed with her for two hours, during which time there was no hæmorrhage, nor any other alarming symptom; but she complained of the after-pains more than is usual in a first labour. Not feeling quite satisfied about her, on account of these pains, he returned to the house at nine o'clock, and immediately despatched a messenger for me. I found her faint and pallid; she had lost much blood, the bed and nearly thirty napkins being completely saturated; a copious draining was going on; and the uterus was hard, rather larger than it should have been, and acting every five or six minutes *most powerfully*, producing excessive agony. Cold and pressure having been used without avail before my arrival, I immediately passed my hand into the cavity, and removed nearly a pint of exceedingly firm coagula. From that moment the violent pains ceased, and although there was still a little weeping from the vagina, the uterus continued firm and small. She remained faint for nearly two hours, and vomited everything she took, including brandy and laudanum; but between one and two she fell into a dose; at ten in the morning she was much better than I could have anticipated; and she made a very good recovery.

Case 11.—On July 11th, 1841, at half past ten a.m., I was requested to see a patient in Threadneedle-street, who had been delivered an hour of her first child, after an ordinary labour. The placenta came away naturally; but she flooded much directly it had passed. She soon began to complain of *intolerable after-pains*, for which chiefly my opinion was sought. I found that she had lost a large quantity of blood,

and was very faint. The uterus was very hard and large, as in the last case, never relaxing so as to become soft, but acting violently every four or five minutes; and each contraction was attended with excruciating agony. Cold and pressure had been liberally used before my arrival. As a draining of coloured serum was constantly going on, I passed my hand into the uterine cavity without loss of time, and took away a teacupful of firm, fibrinous coagula. From that moment the pain entirely ceased, and the discharge was diminished to the natural quantity. She soon rallied from her faintness, and recovered without any check.

Case 12.—On February 23, 1835, at eight a.m., I was sent for to the wife of a professional friend at Tottenham, in labour of her first child. She had been harrassed for four days and nights by false pains, thinking herself in labour, though the os uteri was quite close. When I arrived, I found it dilated to the size of a crown-piece, the membranes protruded externally at half-past nine, and broke, and the child was born at half-past ten. Immediately after its birth, there was a copious gush of blood, and the uterus contracted firmly around the placenta. As that mass did not descend, and the bleeding continued, I removed it, by the introduction of the hand, in about ten minutes. It was partially adherent. The uterus contracted apparently in a natural manner, but it soon relaxed again, and continued alternately relaxing and contracting, with a constant discharge of blood, for fifteen or twenty minutes. After that time, each contraction was attended by pains *more difficult to bear than the pains of labour;* and the intervening relaxation in its fibres was not so decided; a profuse draining continued. Neither pressure, vinegar, nor the application of ice produced the least advantage in controlling the discharge or relieving the suffering; and at twelve she became faint and giddy. I then passed my hand within the uterine cavity, and emptied it of a quantity of firm, fibrinous coagula, as large as a man's fist. The uterus now contracted firmly, the flooding ceased, she was relieved from the intolerable anguish, and at two p.m. I left her asleep. She recovered from her labour well; but, as her health had been very delicate, and as she had suffered from dilated heart for some years, her convalescence was protracted.

Case 13.—At nine a.m., March 4, 1827, I was requested to see a patient of the Royal Maternity Charity, living in Spitalfields, who had been delivered of her fifth child two hours. The placenta was expelled naturally, without any flooding, soon after the birth; but the uterus relaxed almost immediately, and hæmorrhage came on. I found her very faint, with cold sweats, having lost from two to three pints of blood. The uterus was acting very powerfully, *with intolerable pains* every three minutes. Cold and pressure had been used, and she had taken some brandy. She appeared in great danger. I gave her some more stimulant; and passed my hand into the uterine cavity. Within it there was a very tough coagulum, of the size of a goose's egg, so strongly cemented to the inner surface, that I had as much difficulty in detaching it as I should have experienced if it had been a portion of firmly-adherent placenta. Indeed, while separating it, I was impressed with the belief, that it was a part of the placenta, and was surprised when I discovered, on examining it and breaking it up, that it consisted of nothing beyond coloured fibrin. The uterus now contracted firmly; there was no more discharge of importance. She continued faint through the greater part of the day, with slight delirium, but eventually recovered.

Case 14.—On the 27th of last February, at two p.m., I arrived at the house of a lady whom I had engaged to attend, six miles from my own. She had not had a child for seven years, and I was informed, that, after the birth of her last, she had been confined to her room for six months from illness. Her constitution is weak, her muscular structure flabby, the heart's action languid, and her legs and feet had been for some weeks œdematous. The os uteri was dilated to the size of a dollar, but thick and rigid; the membranes broke at three; and the child was born under strong uterine action at half-past four. The features of the case more resembled those of a first than a subsequent labour. The placenta passed quite naturally in fifteen minutes, and the uterus contracted well. In half an hour I was called up stairs; the uterus was then acting very violently, so as to make her moan, and roll about the bed, every three or four minutes. It was considerably larger than when I had left her, and very hard, not showing the least disposition to relax. There was much hæmorrhage going on. She had vomited, and was faint; but these symptoms appeared to me to be rather produced by the pain than the loss of blood. I immediately introduced my hand into the uterus, and took away three or four ounces of firm, tough coagulum from the cavity, and as much more of a loose description from the vagina. The hæmorrhage and pain instantly ceased, as did the vomiting, and she progressed favourably.

The similarity of these cases, one to the other, is very great, and the symptoms evidently depend on a relaxation of the uterus taking place after delivery, the exudation of a quantity of blood into the cavity, and the forcible contraction of the fibres for the purpose of expelling it. These contractions, however, as I have before remarked, only serve to detain the extravasated blood more obstinately within the organ, by squeezing out the serum, and rendering the fibrinous portions that remain more compact, solid, and tenacious. It will be seen, that they may occur in first as well as subsequent labours, and when the placenta has passed naturally, as well as after it has been removed from the uterus by manual operation.

I cannot refer any one of them to a hurried state of the circulation, or to over-distension of vessels,—the explanation given by Gooch and others to such cases; nor do I think with Burns, that the symptoms depend on irregular contraction of the uterine fibres, because the external form of the uterus was perfectly globular, and because in no instance did the hand, when passed within, discover any separately constricted part; nor was the coagulum found to be lying in any corner or chamber, such as we not unfrequently observe in cases of retained placenta.

It may be thought by some, that the instances I have related should be classed under the head of ordinary after-hæmorrhage; and that, as that subject is fully discussed in most systematic treatises on obstetrics, it is not worth while to elevate these cases into a separate variety. But my object in bringing them forward is threefold: partly to show that dangerous hæmorrhage may be going on while the uterus is acting with more than usual power,—partly to express my conviction, that that action, though attended with great pain, is not, properly speaking, irregular or spasmodic, but quite normal, established for the purpose of expelling an offending mass of contained coagulum,—and partly to demonstrate the immediate relief obtained by the introduction of the hand, and removal of the extravasated blood, as well as the perfect safety with which that apparently formidable operation may be performed.

7, Portman-square.

NOTE
ON THE BREATHING-MOVEMENTS IN THE TWO SEXES,
AND
ON THE ALLEGED INFLUENCE OF STAYS IN PRODUCING PULMONARY CONSUMPTION.

[EXCERPT FROM A CLINICAL LECTURE.]

By W. H. WALSHE, M.D.

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. . . . . HERE, then, gentlemen, is a woman,(a) (labouring under dilatation of the heart, with probable tricuspid regurgitation, and old pericarditis, general bronchitis, congestion, and œdema of both lungs,) whose maximum thoracic respiration-movements are translated from the upper to the lower regions of the chest. Her breathing-play is inferior-costal and abdominal, instead of being infraclavicular. She breathes under the influence of her complicated malady as the healthy male, and may be said to be *unsexed, quoad respiration*, by her disease. Observe, however, that this perversion only holds in *calm* breathing; the moment she takes a *forced* inspiration, the infraclavicular

(a) Lindsay, University College Hospital Female Case-book, Vol. IX., p. 132.

regions rise abruptly, fully, and equably, (she is non-tuberculous, be it remembered,) after the type of health. In the state of forced respiration she breathes—at least in the present point of view—precisely as both sexes breathe when the contents of the thorax are sound.

What is the cause of this perverted condition of breathing-movement in the female, when labouring under certain thoracic diseases? A preparatory point to determine is, the *how*—and, if possible, the *why*—of the difference in the calm breathing-movements of the sexes in health. And to this preliminary question we will confine our inquiries to-day.

The healthy calm breathing of the male is essentially effected by the descent of the arch of the diaphragm; the amount of abdominal is greater materially than of pectoral expansion-movement; and the former commences sensibly before the latter, which is, besides, confined almost exclusively to the lower ribs. The male action is inferior costo-abdominal. But is not the ordinary breathing of the female carried on by similar play of the diaphragm? Judging from outward appearances, no. In the female the abdominal expansion is almost null, and always slightly posterior in point of time to the upper costal; neither do the lower ribs move notably, whereas the clavicles and infraclavicular regions rise and fall with freedom. The male seems to the eye to breathe with the abdomen and lower ribs from the sixth downwards; the female with the upper third of the chest alone. These statements refer to adults only.

To adults only, I say; for it is yet a point *sub judice*, whether, and to what proportional extent, the discrepancy of adult life prevails in infancy and early youth. I have examined a considerable number of female children, aged between four and ten years, who had never worn stays, or any substitute for these, and found in them the predominant infraclavicular action of the adult. But the excess of upper movement is very positively less than among their seniors. On the other hand, Boerhaave, one of the earliest observers of the difference in the respiratory action of the sexes, speaks as though the boy and girl of "one year old" breathe as distinctively, the one with the abdomen, the other with the chest, as the full-grown man and woman.(a) *Per contra*, Beau and Maissiat affirm, that in earliest infancy, and often up to the third year, the respiration is abdominal in the female as well as in the male.(b) It has appeared to me, too, that in earliest youth, when the pectoral and ventral modes of breathing become obvious, the chest-action in the female is more *general* than at a later period, and less limited to the upper regions. Age, then, does seem to me to exercise an influence upon, or to be connected with, the typical breathing of the sexes.

Social position exercises none; the washerwoman and the peeress breathe exactly alike.

The habit of forced breathing is not without modifying power on the calm action in both sexes. For instance, the extensive play of the upper regions in full-chested *soprani*, kept up in the exercise of their art for many hours daily, ends by increasing the amount of infra-clavicular movement in ordinary conversational breathing. It has appeared to me, that, even in *tenor* singers, some perversion of the ordinary condition—some degree of unnatural infraclavicular movement—may be detected in calm respiration.

But what influence does dress exercise? Looking at an adult female, and remembering her habit of drawing in the lower ribs by apparatus more or less unyielding, the inference seems unavoidable, that the reason why a woman does not breathe like a man is, that her mode of dress mechanically obstructs phrenic play. Certain mischiefs entailed by tight lacing we see positively in displacement of the liver; in mis-shapement of it, so that its height is made to exceed more or less its breadth, (as ascertained the other day, for instance, in the body of E. Smith, University College Hospital Female Case-books, Vol. IX., p. 130;) in alterations of its texture, so that true lobular substance is replaced to a greater or less depth by induration-matter functionally inert. We see them exhibited in displacement of the heart,—in narrowing of the lower intercostal spaces, etc. And if, from certain of the facts concerning age just passed in review, we are forced to the admission, that the activity of infra-clavicular respiration-movement in the female is in the main designed by nature, and independent of extraneous influence, still I cannot help thinking that the great excess of that movement, and the limitation of thoracic play to the upper thorax in the civilized adult female, are due in no small measure to the use of unyielding cases interfering with inferior costal and phrenic action. The agricultural female labourer, who knows not stays, breathes more like a male than the town female. Besides, during sleep, the conditions of pectoral and ventral action in the female are much less strikingly different from those in the male than in the waking state; the waist is relieved for a time from constriction. And, further, the male and female dog breathe almost exactly alike, as do also the horse and mare; the action is abdominal and lower costal.

It would seem, then, that stays are in part productive of the peculiarity of adult female breathing, but certainly are not its sole cause. Boerhaave, and his commentator, Haller, however, holding that the sexual difference obtains from birth, looked upon the free upper costal action in the female as a pre-ordainment to meet the difficulties of pregnancy. "Nisi hanc," says Boerhaave, "in fœminâ diversitatem natura fecisset, gravidæ perpetuâ dyspnœâ laboravissent, æque ac viri hydropici." But it seems here to be forgotten, that if the illustration be sound, ascitic females ought to escape dyspnœa. The final cause of the difference in the sexes is of less interest, however, than the mechanism by which it is actually worked out; but of this also, nothing is known. Haller ascribed the predominant costal action in females to the greater flexibility of their bones and cartilages (Op. Cit., pp. 98, 145.) The upper interspaces are relatively wider in the female, the lower in the male; but is this effect, or cause, or neither one nor the other?

I have just reminded you of some of the evil influences exercised by the use of tightly-laced, unyielding stays on the liver. Do they inflict mischief on the lungs? It appears to me this will altogether depend on the amount of constriction. If this be simply sufficient to transfer the maximum chest-play from the base to the apex of the thorax, (or, rather, to magnify somewhat the breathing difference superiorly and inferiorly natural to the female,) I cannot very clearly descry what evil is to come to the lungs, especially if the stays be cut bias, and be formed of yielding material. If, on the other hand, rigid wood-work or metal plates be used to stiffen stays of which the main material is hard and cut straight, then it is conceivable, *à priori*, that serious evil may come to the lungs. Remember, however, the wide difference in the statical and dynamic mechanism of the thorax and abdomen, and you will feel at once that the fact of serious compression of the liver being produced by tight lacing gives no shadow of proof that the pulmonary organs must suffer to similar amount, or even in similar fashion. I know not, as matter of clinical experience, what the mode of disturbance is which constriction of the base of the chest actually and demonstrably entails on pulmonary action or pulmonary structure. But such ignorance as this is not commonly avowed; on the contrary, the mass of information on the point is held to be positive and of ominous, most ominous, quality. Dr. Copland, for instance, writes, in a recent and otherwise admirable article, that the use of stiff stays produces "ultimately a morbid state of the blood, *tubercular deposition, especially in the lungs*, hæmoptysis, anæmia, etc." But it may be fearlessly asserted, that neither Dr. Copland, nor any other man living, could prove that the abuse of stays produces the specific disease tubercle. I look in vain for evidence of such power in the writings of those who most loudly proclaim its existence; declamatory passages, arguing *à priori* from a loose physiology to a yet looser pathology, are all I have ever succeeded in finding—at least, with one seeming exception—a seeming one only. Mr. Farr, in truth, speaks thus:—"Thirty-one thousand and ninety English women died in one year of the incurable malady, consumption. Will not this impressive fact induce persons of rank and influence to set their countrywomen right in the article of dress, and lead them to abandon a practice which disfigures the body, strangles the chest, produces nervous or" [this "or" is probably the "etc." of Dr. Copland] "other disorders, and *has an unquestionable tendency to implant an incurable hectic malady in the frame.*" (a) Strange, Mr. Farr should forget to compare the relative mortality of the sexes in elucidating this question. Look at this table giving the mortality from consumption in three

(a) Prælect. Academ., § 623, t. v., p. 144. Ed. Haller, Amst. 1744.
(b) Arch. Gén. de Méd. Déc. 1842.

(a) Letter to the Registrar-General. 1840. P. 73.

years to a million living of each sex in England and Wales:—

YEARS.	Deaths from Phthisis to 1,000,000 living of each Sex.	
	Males.	Females.
1837	3,771	4,155
1838	3,783	4,077
1839	3,722	4,015

What evidence does this table give of the dependence of tuberculization on stays? It simply shows that the phthisical mortality of females is somewhere about 300 per 1,000,000 living greater than that of males. Granting that the female excess is really due to stays, what scientific justification does its amount give of Mr. Farr's startling phrases? None, absolutely none. But let me assure you, no particle of evidence exists that the moderate excess of female destruction is really traceable to the abuse of stays. Not a few arguments might be adduced, tending to prove their absolute innocence. Thus in France, as is well known, females rarely use stays until the afternoon; in England, women tighten themselves up the moment they rise in the morning; yet the excess of female phthisical mortality over the male is greater in France than in this country. Again, in certain parts of Europe, the men tighten themselves at the base of the chest, so as to produce a tolerably fair image of the figure of a wasp, and yet they do not seem thereby to increase their relative quota of phthisical mortality. Further, it will be conceded, that tight-lacing is, as a rule, pushed to greater lengths among metropolitan than among rural female populations; so that, if the influence assigned to stays be other than a figment of the brain, the plus destruction of women over males ought to be relatively greater in London than in the country. Now, such evidence as I can get at tells in precisely the contrary direction. Thus, examine these figures:—(a)

Kent County.

	Males.	Females.
Population in 1841	232,228	236,885
Abs. deaths from phthisis	726	778
Deaths from phthisis per 1,000,000 living	3126	3242

Metropolis.

Year.	Males.	Females.
Population in 1838	913,077	971,767
Absolute deaths from phthisis	4,057	3,630
Deaths from phthisis for 1,000,000 living	4,443	3,735

So that, actually, where, by fair inference, the amount of stay-constriction is greatest, and its prevalence widest, (in the Metropolis,) females are destroyed by phthisis to a less degree than males; whereas, amid a country population, which we may honestly assume to undergo a less mean amount of tightening, females die consumptive in notably larger proportion than males.

No, gentlemen, if the abuse of stays produces consumption, its power to do so most indubitably remains to be proved; and while the laws of an enlightened pathology point to the excessive improbability of an essentially diathetic disease springing from a mechanical cause, I entreat you not to adopt the popular creed, that "stays cause consumption," unless on direct and unimpeachable logical evidence. There is quite enough in the demonstrable evils entailed by tight-lacing to justify you in warring against the abuse; you have no need to support your arguments by the unfair appeal to an imaginary mischief.(b)

(a) Vide Regist. Rep., Vol. VII.'

(b) Non-medical observers have often described these evils with greater truth than *ex-professo* hygienists. The great French orator, Mirabeau, (whose studies might scarcely have been supposed to reach so far into mechanical pathology,) enters into them with singular precision and detail; but, while ("Lettres à Sophie") deeply anxious to guard his fair correspondent against the really injurious effects of tight-lacing, he shows too much respect for the laws of evidence to terrify her with the bugbear of consumption.

A CASE OF INFANTILE CONVULSIONS.

By ALEXANDER WILSON, M.D.

R. F., aged six weeks, a healthy-looking infant, but subject from birth to constipation of the bowels, which was generally overcome by the administration of a little manna, magnesia, or castor-oil. When about three weeks old, the mother observed that he had frequent stretchings of the body, accompanied with redness of the face, which soon went off. She is inclined to think that these symptoms commenced soon after birth, but unwilling to view them in a serious light, little attention was paid to them. By more attentive observation, however, she was convinced that they were increasing, if not in severity, at least in frequency; and, in a few days, her worst fears were confirmed by the occurrence of a well-marked violent convulsion. She says, they generally commenced by stretching of the body and limbs, accompanied with stiffness and, sometimes, contraction of the fore-arm on the arm; the fingers were firmly clenched over the thumb, which was stiffly pressed across the palm; the feet were turned inwards, toes stiff; the face, at first red, gradually assumed a purplish colour; eyes turned upwards and outwards; the breathing seemed momentarily suspended. These symptoms continued for a few seconds, when relaxation appeared to take place, which was instantly followed by violent motion of the arms and legs, but principally confined to the arms, and the right side in particular; working of the tongue and under jaw, with foaming at the mouth; the breathing during this time continued much oppressed, with spasmodic catchings. This state, after a little, generally ended in free perspiration, followed sometimes by calm and refreshing sleep. On the appearance of the first severe symptoms, medical assistance was called in, and the usual remedies prescribed, but without permanent benefit. At first they seemed to lessen the severity of the attacks, but they soon lost even the power of alleviating the symptoms, and were persevered in for some time without the slightest appearance of benefit of any description being derived from their use. It is unnecessary to mention the treatment followed in this case, as it differed in no particular from that pursued on similar occasions. At the time I first saw the child, the symptoms were such as I have described, but perhaps not so well-marked, owing to the frequency of the convulsions, which occurred as often as fourteen and eighteen in the hour, and for four and five hours in succession, after which a little sleep would be obtained, but just to wake up with renewed severity. It never took the breast, went to sleep, or awoke, without going into convulsions, which would continue for hours. The slightest noise, as the moving of the fire-irons, or even touching it, would put it into that state. After seeing the child, and considering that a fair trial had been given to the usual remedies, without procuring any permanent benefit, and as we had nothing before us but death, and that soon, from exhaustion, I recommended the inhalation of chloroform, if not to cure, at least to alleviate the sufferings of the little patient.

There were no apparent cerebral symptoms to indicate disease there; and, although the fæces were bad and constipated, the tongue and mouth were clean and moist; the skin was also natural. Viewing the case generally, I considered that the convulsions arose, not from any internal local disease, but from excessive irritability of the excito-motory and spinal system; and that, if we could allay this irritation, we might yet save our patient. As chloroform seemed the most certain and most powerful remedy we possessed, and there being nothing to contra-indicate its use, it was decided to give it also a fair trial. Consequently, on the morning of the 3rd ult., sixteen days after the first appearance of the severe convulsions, the child was placed under its effects, and kept in it, more or less, for fourteen days, during which time we used upwards of two pints of chloroform.

During the first twenty-four hours, the attacks were kept within one an hour, and decidedly less severe when they did occur. Being tired by previous watching, I left it, satisfied that we should ultimately succeed.

The following morning I was suddenly sent for, and informed that the chloroform had failed, and that the child was dying; but on arrival I found matters not quite so bad as they had been represented. Soon after being left in the charge of others, the fits had returned, and continued frequent and violent until a little before my arrival, when the mother,

picking up courage, placed it easily and deeply under its effects. I suspected from what I heard and saw, that the remedy had not been properly administered; and the success of the next twenty-four hours corroborated my suspicions. Determined to guard against any similar occurrence, and having much confidence in the firmness of the mother, I gave her the necessary instructions how and when to apply it during my absence. Our progress was slow; but we did progress, and, in hopes of ultimate success, we persevered. First one symptom and then another disappeared, until nothing but a few twitchings about the mouth remained. One of the worst symptoms we had to combat at the last, was an excessive tendency the under jaw had to fall down, which was followed by a general and momentary stiffness of the body, but without any motion of the limbs. At last this gave way; soon after which we laid aside the chloroform, which we had been using for fourteen days. It is now three weeks since there were any appearances of fits. The child has been in the country for some days, and since its return I have seen it on several occasions. It is very much stouter, and is considered by those who have never heard of its previous sickness, a fine, healthy, and large child of its age.

I quite agree with Dr. Simpson in thinking, that chloroform will yet prove a powerful and beneficial agent in the reflex convulsive affections of infancy. It is to be wished, that others who may have opportunities of meeting with such affections should try this method of treatment, and give us an account of their success or failure in the pages of some of our periodicals.

Manchester.

THE LONDON
PRACTICE OF MEDICINE AND SURGERY.

UNIVERSITY COLLEGE HOSPITAL.

ADMINISTRATION OF CHLOROFORM.—DEATH FROM CARDIAC SYNCOPE.—AUTOPSY.—FATTY DEGENERATION OF THE HEART.

[Under the care of Mr. ERICHSEN.]

There are few subjects of greater interest to the surgical world, and few on which the accumulation of evidence is more necessary, than respecting the causes of death during the inhalation of chloroform; we therefore hasten to lay before our readers the particulars of the following melancholy case:—On March 18, Caroline Baker, aged 28, a prostitute, was admitted on account of sloughing phagedæna of the labia. She was a tall, well-made, moderately stout woman, of a florid, but rather bloated aspect. Mr. Erichsen directed the application of strong nitric acid to the sores to be made, according to custom, while the patient was under the influence of chloroform. For this purpose, on the following morning, the acting house surgeon, Mr. White, aided by one of the physician's assistants, and the dresser of the patient, proceeded to administer the anæsthetic. We must here describe the mode of administration usually adopted at this hospital. On a piece of folded lint, about an inch and a half square, and consisting of four doubles, a small quantity of chloroform is poured, and the lint then held at a distance of about three inches from the nose of the patient, so as to permit of the very free admixture of air with the first few inhalations. After the lapse of about half a minute, the lint is brought nearer to the patient's nose, to within a distance of perhaps an inch, being never allowed to touch; at the same time a towel is lightly laid over the face of the patient and the hand of the operator, so as to prevent the escape of the chloroform vapour, but not to prevent the admission of air. During the whole time, it is the duty of the administrator to keep his hand on the pulse, and occasionally to examine the pupils of the patient. All these precautions were, we believe, strictly observed in the present case. About *a drachm* of chloroform was poured on to the lint. After inhaling for from two to three minutes the woman became a little excited, and began to talk and move her legs; the lint was then removed a little further from the face; in a short time she became more quiet, and in about *eight minutes* from the commencement was fast asleep. Everything thus far had gone on satisfactorily; the pulse, which, previous to the administration, was regular, of average character as to firmness, and about 94 in frequency, had become accelerated under the first influence of the drug, but soon afterwards sunk to its previous state, and continued of fair power throughout; the pupils had been closely contracted; her aspect had continued florid; and the respiration was only slightly stertorous. The chloroform and the towel were now laid aside, and the patient's bed was moved a short distance towards the window. While this was doing, Mr. White, who still kept his hand on the pulse, noticed that it suddenly began to get smaller and weaker, and that the countenance of the patient was becoming very pallid. Cold water was at once dashed on her face. In a few seconds, her pulse had become imperceptible; and on examining the pupils, they were found widely dilated. Artificial respiration by means of pressure on the abdomen was now commenced, the natural inspirations having become very slow, *but not quite suspended.* The stethoscope was applied over the heart, without any sounds being detected; the examination was, however, necessarily a hurried one. Mr. Clover, the resident medical officer, who had been summoned on the first appearance of danger, was in almost immediate attendance. Under his direction, the artificial respiration was maintained, hot water was applied to the feet and thighs, and friction was made on the body of the patient. Galvanism was also had recourse to, one pole being applied over the region of the heart, and the other to the back of the neck. It is probable that not more than four minutes had elapsed between the cessation of the heart's action and the commencement of the use of this agent. The apparatus was in good order, and worked well. After the above means had been simultaneously continued for a few minutes, there were decided symptoms of improvement; the pupils again contracted, and, on the artificial respiration being temporarily suspended, the patient spontaneously made eight or nine interrupted attempts to breathe. These having ceased, Mr. Clover next performed laryngotomy, and artificial respiration was continued by means of a tube passed through the opening into the trachea. From this time forwards no hopeful indications occurred; the death-like pallor of the countenance increased; and the pupils again became widely dilated. After about three quarters of an hour, spent in unremitting exertions, it was judged useless further to persevere, as the patient was evidently quite dead.

Autopsy Twenty-four Hours after Death.—Cadaveric rigidity well marked. Numerous discolorations in spots and patches scattered over the surface of the corpse.

Lungs congested, but not to a marked degree; crepitant in all parts.

Heart.—Right side moderately contracted; left distended with fluid blood; the whole organ large, pale, flabby, and having on its surface a greater deposit of fat than natural. Weight ʒxss. Its muscular structure, when cut across, was very noticeably soft and pale; it was very easily torn. Placed under the microscope, its fibres were seen to be loaded with fat granules,—a condition which prevailed more or less in all parts, but to the greatest extent in those taken from the right ventricle. The valves and large vessels were healthy.

Blood dark in colour, and, with one exception, fluid in all parts; this exception relating to that which escaped when the root of the right lung was cut across, which contained a few small and very soft coagula.

Spleen enlarged, and loaded with blood. Weight ʒxii.

The rest of the abdominal organs, as also the brain, were carefully examined, but did not present any appearances worthy of note. With the exception of the kidneys, none of them showed any degree of congestion. Microscopically, it appeared healthy.

We are indebted to Mr. White for the above particulars. The autopsy was performed by Professor Erichsen, and the microscopic examination by Dr. Quain, whose conclusions were also supported by several other independent observers.

The cases in which death has been caused by chloroform may be arranged into at least two distinct classes: first, those in which the anæsthetic influence having passed from the sensorium to the medulla oblongata, paralysis of the pneumogastric nerves results, and consequent suspension of the respiratory process; and, secondly, those from cardiac syncope, in which the heart's action is probably arrested by the direct influence of the poisoned blood. In the former, which is by far the larger class, the first symptom of danger is failure of respiratory movements; in the latter, failure of the heart's action. The experiments of Dr.

Glover and M. Gosselin prove that, when chloroform is injected into the veins of animals, the action of the heart is almost immediately put a stop to; and, in the case of a patient at the Hotel Dieu of Lyons, it is noted, that, as in the one above related, respiration continued to be feebly performed for some time after the pulse had totally ceased to beat. There can be little doubt but that these cases must be deemed examples of this most hopeless form,—death beginning at the heart.

We much fear that the above case contains little in the way of practical teaching,—that it is simply another item placed on the debtor side of the balance-sheet between chloroform and mankind, and that it does not in any way increase our knowledge of the means by which similar mishaps are in future to be avoided. It is true, the quantity administered was not measured; but, had it been so, it may be questioned whether more would have been gained than a knowledge of the exact dose which sufficed to kill. It is true, that no previous examination of the thoracic viscera had been instituted; but is it probable, that auscultation, in the case of a stout, florid woman, could have pronounced a heart of the size which we have mentioned, and possessing sufficient power to give to the pulse an average degree of force, to be in a state of fatty degeneration? Even if the sign were of proved value, no arcus senilis existed; and although afterwards it was ascertained from the friends of the deceased, that she had several times complained casually of painful palpitation, yet the account was certainly not of a character to have *à priori* excited alarm. Whilst we would strongly recommend to all engaged in the administration of chloroform, to carefully examine the state of the patients' heart previously, and never to omit the measurement of the dose, we yet cannot help expressing our belief that, in the present instance, the fatal result was a pure accident, in so far that no precautionary measures would have been effectual for its prevention.

ST. BARTHOLOMEW'S HOSPITAL.

DIFFUSE HÆMATOCELE OF THE SPERMATIC CORD.

Under the above title we are desirous of placing together the particulars of two very interesting cases, examples of an affection of very infrequent occurrence, and involving some important practical points.

Case I.—KICK ON THE GROIN.—LARGE EXTRAVASATION OF BLOOD INTO THE STRUCTURE OF THE CORD.—EXPECTANT TREATMENT.—SLOW ABSORPTION OF THE EFFUSED BLOOD.

[Under the care of Mr. STANLEY.]

John Davis, aged 30, a tall, powerful man, was admitted on Dec. 15, 1851, on account of a large swelling in the left side of his scrotum. The tumour was the size of two fists, pyriform in shape, its neck extending into the inguinal canal, very tense, with a smooth rounded outline, and equally solid feeling in all parts. It completely concealed the testicle and cord. The skin of the scrotum was distended, and of a purplish-red hue; it did not, however, adhere to the swelling, but might be pinched up from it. The man stated, that he had on the previous day received a violent kick from a horse in the left groin, immediately after which swelling of the purse commenced, and, continuing to increase, attained in the course of six hours its present size. The symptoms and history agreeing so well, Mr. Stanley felt no difficulty in diagnosing it as a case of extravasation of blood into the tissues of the spermatic cord, and he accordingly ordered the patient to be confined to the recumbent posture, and to keep a cold lotion constantly applied to the part. About ten days later, and before any apparent diminution in the size of the swelling had taken place, it was discovered that in the anterior and lower part there was a soft spot, and this, in the course of a few days, had become much more plainly evident. The sensation given to the finger was so like that of fluctuation, that several times the question of the propriety of making a puncture into it was mooted. Its performance was, however, deferred, and the swelling gradually diminishing in size from below upwards, it became evident in a short time that this false sense of fluctuation had been due, not to the presence of fluid, but to that of the testis itself in a soft and healthy condition, held forwards by the solid mass of coagulated blood in which it was imbedded. The absorption of the blood proceeded but very slowly, and it was not until Feb. 1 that it was sufficiently accomplished to permit of the patient being discharged, and even at that time there remained considerable thickening of the cord, the other parts being left, however, in a perfectly normal state.

ST. THOMAS'S HOSPITAL.

Case II.—PROBABLE INJURY TO THE GROIN.—LARGE EXTRAVASATION OF BLOOD INTO THE STRUCTURES OF THE CORD.—TREATMENT BY MERCURY.—SLOW ABSORPTION OF THE EFFUSED BLOOD.

[Under the care of Mr. SOLLY.]

The following case, although similar to the preceding in its main features, was much complicated, as to dignosis, by the history of an old standing hernia on the same side:—

John Grady, a potman, aged 30, was admitted on December 9, 1852. In the right side of his scrotum, the testicle and cord were concealed by an elongated swelling, the size of a fist, which extended from the most depending part of the scrotum into the inguinal canal. It was smooth, tense, and solid feeling, and the skin might easily be pinched up from it. No impulse was communicated to it by coughing. It was very difficult to arrive at a correct history of its appearance. On one occasion the patient confessed to having a few days before admission been so drunk that he did not know what happened to him, but this he afterwards strenuously denied. He had seven years ago suffered from a hernia on the same side, which was easily returned, and for which he wore a truss two years, when it appeared to be cured, and never again troubled him. The present swelling had, he stated, formed slowly during several days, *commencing from above*. During the first day he suffered much from pain and vomiting, but these symptoms soon subsided. As no indications of strangulated hernia were now present, Mr. Solly did not deem it advisable to perform any exploratory operation. He ordered the man to be confined to bed, to have twelve leeches applied to the scrotum, and to take a pill containing two grains of calomel and half a grain of opium every night and morning. On the following day the leeches were repeated, with the effect of much diminishing the inflammation of the part. The pills having, after five days' employment, induced salivation, were then discontinued. After the lapse of about a fortnight there was found in the lowest part of the swelling just such a softened spot as we have noticed in the foregoing case, and suspicions were strongly excited of the existence of fluid. As absorption was going on very slowly, Mr. Solly ordered the whole affected part to be enveloped in lint spread with mercurial ointment, under the influence of which a slight ptyalism again resulted, and the swelling continued to diminish, from below upwards. It soon became evident that the soft part which had been felt was due to the presence of the testis, as in the former instance.

The man left the hospital on February 5, the lower half of the swelling having very nearly vanished, but the cord remaining extremely thick in the upper part and inguinal region.

There can, we think, be no hesitation as to the propriety of considering both the preceding cases as instances of the extravasation of blood within the fascia of the cord, consequent on the rupture either of the spermatic artery or of some of the veins composing the spermatic plexus.

The limitation of the swelling to one side of the scrotum, its rounded outline, pyriform shape, and non-attachment to the integument, all tend to prove that the blood was not free in the scrotal cellular tissue, but confined within some deeper membranous tunic. The circumstance that the testicle was, in the first stage, in each case, completely buried in the mass, is easily explicable, by reference to the fact, that the infundibuliform fascia invests not only the cord and epididymis, but also the exterior of the tunica vaginalis: with the latter, however, its connexion is much more close than with other parts; and the small quantity of intervening cellular tissue accounts for the rapidity with which the effused blood (probably very small in quantity at first) became absorbed from that situation. Should extravasated blood, when in large quantity, as in the present cases, be evacuated by incisions? We have seen that its removal by absorption is a very tedious process, that it

occupied in one case two months, and in the other six weeks (without being in either complete at the time of discharge); yet taking all circumstances into account, we are convinced that it is one which should not be interfered with. All surgical authorities are opposed to the opening of collections of blood as a principle; and as it regards this situation in particular, there are on record some instructive cases. Through a mistaken diagnosis, *misled partly by the apparent fluctuation of the testicle below*, Mr. Freke was in one case induced to lay open the tumour, a large quantity of blood escaped, and the man ultimately did well. In a case which occurred to Mr. Pott, however, it was, after the incision, found impossible to discover the bleeding vessel, and castration was performed, on account of the alarming hæmorrhage which ensued. Now, although we fully concur with the remark made in Mr. Curling's excellent work on the Testis, in allusion to the latter case, that "modern surgeons will not be inclined to admit that castration was 'the only remedy,'" yet the bare risk of such an expedient being necessitated, seems quite to over-balance the anticipated advantage in point of time.

TREATMENT OF ABSCESS BY THE SIDE OF THE URETHRA.

[Under the care of Mr. SIMON.]

Gonorrhœal inflammation of the genito-urinary tract commonly relieves itself by profuse suppuration from the free surface of the mucous membrane; when peracute, however, or when occurring in debilitated constitutions, it may give rise to circumscribed abscess in the tissues surrounding the inflamed tube. Our attention was lately attracted to a case under the care of Mr. Simon, in which a lad, aged 16, was the subject of a first and very severe clap, which had occasioned him an unusual amount of deep-seated burning pain. About a week from its commencement, there was observed to be a degree of tumefaction of the left side of the raphe and immediately behind the verge of the scrotum. On the following day, this had become more distinct, but was still tense and firm, without yielding any perceptible sense of fluctuation. Mr. Simon remarked to those present at his visit, that there could be no doubt as to the nature of the swelling,—a follicular abscess deeply placed by the side of the urethra was in course of formation; and that, whether pus had actually formed or not, there could not be two opinions as to the propriety of making at once a free external opening. This was accordingly done, but in a manner differing somewhat from what we have usually seen adopted, and, we think, a considerable improvement on the ordinary method. Pinching up a fold of the skin at the verge of the scrotum and commencement of the perinæum, Mr. Simon transfixed it with a scalpel, and, cutting outwards, made an incision, at least an inch and a half in length; in the centre of this he then pushed the knife into the centre of the induration, which done, about a drachm of thick pus escaped. The *rationale* of the early puncture of these abscesses, and also of the free external incision, is obvious. In their first stages, follicular abscesses by the side of the urethra have often no communication with that canal; but, if allowed to continue, they will almost inevitably ulcerate into it, and thus become converted into the more serious affair of *urinary* abscess; it is, therefore, extremely important to provide means for their evacuation before this has occurred. The surgeon cannot, however, tell, before opening an abscess of this description, whether it communicate with the urethra or not; nor, consequently, can he know whether or not the incision he is about to make will have to form a channel for the escape of urine. It is therefore incumbent upon him to provide for that contingency by making his incisions of such size as shall effectually prevent the irritating fluid from being confined and pent up. If the external opening be small, or, worse still, valvular, the first act of micturition may suffice to extravasate the urine into the cellular tissue of the whole scrotum, and to necessitate measures of great severity, all risk of which may be safely obviated by following the plan pursued by Mr. Simon, and making the opening in the skin of much larger size than that in the deeper parts. Nor can these well be practised too early. Repeatedly has it occurred to us to see practical surgeons of the highest order have recourse to the knife in cases in which no sense of fluctuation could be discovered. It must be remembered, that the matter is here closely bound down, and that, consequently, distinct evidences of its existence will rarely be manifest until it has advanced near to the surface. We well recollect a melancholy case which happened several years ago. A man had gonorrhœal suppuration around or in the prostate gland; the practising of the incision was deferred too long, and the matter burrowed deeply all around the rectum; sinuses in various directions resulted; and so great was the constitutional irritation produced, that, after a very long illness, the patient's life was saved with the greatest difficulty.

SCIENTIFIC LECTURES.

HUNTERIAN LECTURES ON THE ANATOMY AND PHYSIOLOGY OF FISHES AND REPTILES.

By RICHARD OWEN, F.R.S.,
Hunterian Professor to the College.

THIS DAY, APRIL 9.—Lecture X.—Accessory glands of the digestive system: Pancreas; its progressive development; its co-existence under two forms in certain fishes; conditions of its absence in other species. Liver and gall-bladder: gall-ducts. Spleen. Lacteals and lymphatics. Lymphatic heart. Veins. Hepatic sinuses. Portal system and portal heart. Branchial heart: its structure, homology, and analogy in fishes. Auricle, ventricle, and bulbus arteriosus. Pericardium.

TUESDAY, APRIL 12.—Lecture XI.—Respiratory system of fishes. Branchial artery. Progressive complication of the gills of fishes: plicated, tufted, and pectinated gills; variable number of gills in osseous fishes. Gill-chamber and apertures. Branchial defensive valves and processes. Development of gills: retentions of embryonic branchial structures. Hyoid gill. Pseudobranchia. Accessory branchial organs in the Labyrinthibranchs and in certain fishes of the Ganges. Vigorous respiration and circulation in the warm blooded Scomberoid fishes.

THURSDAY, APRIL 14.—Lecture XII.—Arterial system and retia mirabilia in fishes. Air-bladder: its variable character, and modifications of structure; its vascular system, and the so-called "air-gland." Ductus pneumaticus. Chemical analysis of contents of air-bladders. Primary function of air-bladder in locomotion of fishes. Adaptation of gills and air-bladder of Lepidosiren to its sphere of existence. Homology and analogy of the air-bladder and duct. Renal system of fishes. Kidneys of dermopteri, of osseous fishes, and of plagiostomes. Urinary bladder. Relations of kidneys of fishes to the primordial kidneys of higher vertebrates and man.

SATURDAY, APRIL 16.—Lecture XIII.—Principal varieties of the male organs. Summary of modifications of the testis and sperm-duct, and their progressive complications with epididymis, vesiculæ seminales, penis, claspers, and marsupial pouches. Spermatozoa. Modifications of ovaria. Oviduct,—its progressive complications: ostium abdominale; fallopian, glandular and uterine divisions; parallel progress of male and female organs; external sexual characters. Ovarian ovum. Spawning and fecundation, natural and artificial; development of the embryo. External and internal yelks. Deciduous branchiæ of Plagiostomes. Oviparous, ovoviviparous, and viviparous fishes. Incubation in marsupial pouches and artificial nests.

LIST OF SCIENTIFIC MEETINGS.

This Evening, April 9.—ROYAL INSTITUTION.—*Subject*:—"On Static Electricity." By Professor FARADAY. Three o'Clock.

——— ——— MEDICAL SOCIETY OF LONDON.—*Subject*:—"On Chronic Rheumatic Arthritis." By Mr. CANTON. Eight o'Clock.

Monday, April 11.—ROYAL INSTITUTION.—*Subject*:—"On Organic Chemistry." By Dr. A. W. HOFMANN. Four o'Clock.

Tuesday, April 12.—ROYAL INSTITUTION.—*Subject*:—"On Animal Physiology." By T. WHARTON JONES, Esq., F.R.S. Three o'Clock.

Wednesday, April 13.—ROYAL INSTITUTION.—*Subject*:—"On Organic Chemistry." By Dr. A. W. HOFMANN. Four o'Clock.

Thursday, April 14.—ROYAL INSTITUTION.—*Subject*:—"On Technological Chemistry." By Dr. E. FRANKLAND. Three o'Clock.

Friday, April 15.—ROYAL INSTITUTION.—*Subject*:—"On the Identity of Structure of Plants and Animals." By T. H. HUXLEY, Esq. Half-past Eight o'Clock.

——— ——— WESTERN MEDICAL AND SURGICAL SOCIETY.—*Subject*:—"Cases of Obstruction of the Bowels." By A. B. BARNES, Esq. Eight o'Clock.

Saturday, April 16.—ROYAL INSTITUTION.—*Subject*:—"On Static Electricity." By Professor FARADAY. Three o'Clock.

——— ——— MEDICAL SOCIETY OF LONDON.—*Subject*:—"On a New Method of Treating Certain Forms of Ulcer." By Mr. GAY. Eight o'Clock.

MORTALITY IN PUBLIC INSTITUTIONS for the week ending April 2:—

	Males.	Females.	Total.
Workhouses	79	89	168
Military and Naval Asylums	10	..	10
General Hospitals	71	28	99
Hospitals for Special Diseases	3	2	5
Lying-in Hospitals	...	...	...
Lunatic Asylums	10	3	13
Military and Naval Hospitals	7	..	7
Hospitals and Asylums for Foreigners	..	...	...
Prisons	...	1	1
	180	123	303

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Medical Times & Gazette.

SATURDAY, APRIL 9.

ROYAL COLLEGE OF PHYSICIANS—PROPOSED NEW CHARTER.

In another column will be found the draft of the New Charter, which the President and Fellows of the Royal College of Physicians are exerting themselves to obtain from the Queen and Parliament. With this Charter, as a whole, the Profession will, we doubt not, be satisfied, for it shows that a spirit of liberality presides in the halls of the College. The following are its chief points:—

All the extra Licentiates of the College and all those practising as Physicians, who have taken a degree at a British University, or at a foreign University requiring residence, may become members of the College on the payment of fifteen guineas. The Fellows are to be elected as at the present time; only *any* member may attain the honour of the Fellowship by submitting to an examination.

The affairs of the College are to be conducted by a Council of sixteen, to be elected by the Fellows out of their own body by ballot. Four members of the Council are to go out every year, and are not to be re-eligible for one year. The President is to be nominated from the first fifty Fellows by the Council, and to be elected by the Fellows. The President is to retire annually, but is to be eligible for re-election. The Censors are to be four in number; they are to retire annually, but to be, like the President, re-eligible. The Censors are to be nominated by the Council, and elected by the Fellows.

That the proposed Charter is faultless, we do not for a moment contend; but that the College would, if it obtain it, have a constitution far more in accordance with the temper of the age than any of the existing Medical Corporations, is beyond question.

There is one point in the Charter to which we must advert, because we object strongly to the College having any such power as that they thereby seek to obtain. We allude to the power the College would have of conferring Degrees in Medicine, if the following Clause were contained in the Charter:—

"And we do hereby, for us and our heirs and successors, further grant, that it shall be lawful for the said corporation to admit as a member of the said corporation any person who shall have exceeded the age of forty years, on the production to the Censors of the said corporation of such testimonials of professional education as shall be satisfactory to such Censors, and on passing such examination before the Censors as shall be required by, and shall be satisfactory to, the said Censors; and *such person shall, after such his admission as a member of the said Corporation,* BE ENTITLED TO HAVE AND TO USE THE DEGREE OR DESIGNATION OF DOCTOR OF MEDICINE."

Let the Royal College of Physicians enjoy all the privileges of a Royal *College*, but let it not seek to usurp the functions of a University. If the College of Physicians is hereafter to have the power of bestowing a degree and a licence to practise after a single examination, on what grounds can the London University be refused the power of conferring a licence to practise, as well as a degree, after its examinations? For our part, we trust that both bodies will restrain their ambition; that the one will be content to be as heretofore a licensing, and the other an honorary degree-conferring, body,—that the College and the University will be satisfied with performing efficiently each their own definite and distinct functions.

ANOMALIES OF MEDICAL QUALIFICATION.

It is very much to be regretted, that in a Profession, the common objects of which are the relief of disease and the diminution of human suffering, there should exist so little uniformity in education and qualification among its members. Some of the examining and licensing bodies require from their candidates a long and laborious devotion to general literature and special medical science; others are satisfied if the candidate possesses a minimum of information; while a few, we regret to say, have granted diplomas on mere pecuniary considerations, to persons who possessed hardly any information at all. Yet we doubt if things could fail to be otherwise in a country possessing such free institutions as our own,—in which individuals, as well as corporations, are left to their own development, and the public are allowed to be the unrestricted judges of professional skill and attainment. We have sometimes felt indignant that quackery of the grossest kind should flourish in the land, and even receive, as it were, the shield and protection of the law; while the legitimate practitioners of medicine were too often deprived of their fair remuneration in consequence of the public and open patronage of impudence and imposture. Yet, even in this case we may doubt whether such eccentricities do not spring from principles which are intrinsically valuable and useful; just as many of the most absurd decisions in courts of justice may be traced to our Anglo-Saxon law of trial by jury, an institution which no one can deny to be founded upon the purest principles of political and individual freedom.

Leaving, however, for the present, the regions which lie without the Profession, and in which the hydra-headed monster of quackery prowls about unmolested, we repeat our regret at the want of union which is traceable within the precincts of the Profession itself; from which we might, indeed, suppose that, instead of presenting a bold and resolute front against the attacks of the common enemy, the members of a noble calling were intent only on fighting with one another, thus leaving themselves helplessly vulnerable to the malice of the foe.

Again, we observe in the constitution and the movements of the corporate bodies which preside over the destinies of the Profession, and which regulate its machinery, the same evidence of conflicting interests, and the same exhibition of jarring and inconsistent plans, each one endeavouring to gain for itself the utmost maximum of patronage and honour, regardless of the fate which may befal the rest.

Under these circumstances, the only corrective to the laxity of the laws, to the indifference of the general public, and to the selfishness of the corporations, is the expression of opinion on the part of the Profession itself; and we do not hesitate to state, that so high is our estimate of the good sense of the British people, notwithstanding its occasional eccentricities and vagaries, that to the tribunal of public opinion we are content to bow, both as practitioners and journalists.

These somewhat lengthened introductory remarks have

been called forth by the contest which is at present waging among certain classes of the Profession, as to the amount of qualification which should entitle a man to practise as a General Practitioner; that is to say, which should make him, in the eyes of the Profession, and in those of the public, competent to treat the various accidents and injuries, both external and internal, to which the human body is liable.

Now, taking as our guide, not the interest of this or that corporation, not the merits of this or that individual, but the often recorded and plainly-uttered voice of public opinion, both within and without the Profession, we have no hesitation whatever in expressing our conviction, that a person entering into general practice should possess a double qualification; that is to say, he should possess a diploma or licence in medicine as well as one in surgery. He who has received only a licence to practise medicine, has no right, either legal or moral, to practise surgery; and he who has received only a licence to practise surgery, is, *vice-versâ*, not entitled to practise medicine. It is quite true, that medicine and surgery are one and indivisible; but the necessity for a double examination is no proof of their being otherwise. The examinations to which a candidate for the diploma of the University of London is obliged to submit are no fewer than four in number, each of these examinations being again subdivided into several different sections; and this arrangement, however inconvenient it may be to the pupils, has been universally approved, because it is justly considered, that, by different examinations on separate days, the abilities of the candidate are more thoroughly tested than they could possibly be by a single trial.

As to the question, whether a person should have the *right* of entering into General Practice upon the strength of a single and superficial examination in anatomy and surgery, we really hardly think it necessary to offer to such a question a serious reply. Fifty years ago, such a test might have been sufficient, as the means of instruction were then very limited, and the modern science of medicine, with its collateral branches, could hardly be said to exist; but, in the present day, when our Medical Schools are thoroughly organised in every department, while our Universities are daily requiring more and more attainments from the youth of the Profession; and while, on mere abstract grounds, we have a right to expect that medicine should expand its territories like every other science, we really think that a person who stops short at the minimum of qualification should enjoy only a minimum of public favour. We cannot forget that a very high authority has declared, that the parties thus imperfectly qualified are fit only for "the ordinary exigencies" of surgical ministration; and we cannot on any grounds admit them to the same place of honour with those who have laboriously mounted every step on the professional ladder.

But, while thus repudiating the idea of any person having the right to exercise functions which more fairly belong to his more highly educated brethren, we have no desire to exalt any one institution while we criticise the shortcomings of another. All we insist upon is, the necessity of a sound and efficient *medical* education in the case of those who enter upon the multifarious duties of General Practice; and in this sentiment we are quite sure that we are expressing the views of the great majority of our Professional brethren. From the present system of educating the General Practitioners, imperfect as it undoubtedly is, much good has arisen; and in any future legislation upon the subject, we may reasonably hope, that if things are not very much improved, they shall at any rate not be allowed to retrograde.

DR. GEORGE WEBSTER AND THE NEW MEDICAL REFORM BILL.

Since the appearance of our last Number, we perceive that Dr. George Webster has addressed a letter to our two weekly contemporaries, in which he denies having given an unqualified assent to the principles of the New Medical Reform Bill proposed by the Provincial Medical and Surgical Association. From the contents of Dr. Webster's communication, it appears that the Bill is still open to amendment, and that its authors are by no means agreed among themselves as to the propriety or expediency of many of its clauses; we may therefore hope to see many very important alterations made in the measure before it is presented to the House of Commons.

We cannot but take credit to ourselves in having been the first, and, indeed, the only Medical Journal which exposed the defects of this measure; and, if we shall succeed in retarding its progress until very sweeping changes are effected in its provisions, we conceive that we shall be doing a great service to the General Practitioners of this country.

To our brethren in General Practice, we say very emphatically, that, if they neglect the present opportunity, their hopes of enfranchisement will be lost for ever. We are no would-be destroyers of time-honoured institutions; we wage no warfare against the London Colleges; we are favourable to the New Charter of the Royal College of Physicians; but we say to the General Practitioners, "Now that the College of Physicians and the College of Surgeons are claiming *their* rights, take care to claim yours; have your President, and your Council, and your Examiners and other officers, but elect them YOURSELVES: if you are unanimous and stedfast you will obtain justice; but if you are apathetic, the victory will be given to your enemies, and the chance of retrieving your position will be annihilated.

"Awake, arise! or be for ever fallen!"

BETHLEM HOSPITAL.

It was our intention, in the course of the ensuing summer, to have presented our readers with an analysis of the cases of patients in Bethlem Hospital now under treatment, in consequence of their having committed acts which would have rendered sane persons amenable to the law. By these reports we hoped, first, to place the subject of insanity upon a more scientific basis than it at present occupies, and to connect its different forms with those conditions of the brain or of the circulating fluid to which they owe their existence; and, secondly, to offer some remarks upon the characters of the malady in particular cases, the progress which each had made, and the effects of restraint and treatment, and to found thereon some suggestions for alterations in the law of lunacy as applied to so-called criminals.

It is with regret that we now announce our inability to touch upon the "criminal department" of the Royal Hospital of Bethlem. The fault lies not with the Treasurer, nor with at least a large and influential portion of the Governors. To these gentlemen and to the medical staff, our thanks are due for their readiness to acquiesce in our wishes.

The refusal emanated from the gentlemen now at the head of Her Majesty's Government. The Home Secretary deemed it *inexpedient*, (we believe this is the official word,) and declined giving us permission, even though the officers appointed to discharge the duty were under his own control.

This is an illustration of the way in which scientific inquiries are fostered in England; and it explains how it happens that our works on some subjects are inferior to those published upon the Continent. M. Morel is now complet-

ing a valuable treatise, "Des Maladies Mentales, Considérées dans leur Nature, leur Traitément, et dans leur Rapport; avec la Médécine Légale des Aliénés." It is illustrated with numerous lithographs of patients in the Maréville Asylum, in whose aspect the characters of the disease in its different forms are written. The utility of such a work is unquestionable; it is a handbook to the student, and a guide to the practitioner.

Were such a scheme proposed in England it would assuredly be smothered in its birth. Even if the Governors of the Royal Hospitals feel disposed to connect themselves with the humanising influences of scientific improvement, obstacles meet the adventurer, first from laughing officials, who jest at that which they are unable to comprehend, and, when these difficulties are surmounted, there is the red tape and sealing-wax department of official routine to be overcome—a barrier impenetrable to all but Parliamentary votes.

No attempt must here, then, be made to break through the established routine of trials; lawyers and medical witnesses must still be allowed to squabble about that which is unattainable—a fixed definition to the word "insanity:" the former must enjoy their worn-out jokes; the latter must lose themselves in the mazes of second-rate metaphysics; weak-minded, vain lads, with just wit enough to be dangerous, must have the privilege of shooting at the Queen; and the majesty of the law, in its wisdom, demands that the accomplished gentleman, who, through temporary disturbance of the cerebral circulation, gives utterance to some wild threats, should be caged for life in the same den with the uneducated brutal murderer or the raving maniac! The law can see nothing but so many madmen, irrational, irresponsible, and consequently equal.

Well, we must learn from our neighbours. France and Germany must take the initiative in this as in many other subjects, and we must follow in their wake.

As far as regards our own plan, however, that will be altered only thus much,—namely, that the Government cases will not be given.

DRUGS,

THEIR

IMPURITIES AND ADULTERATIONS.

PULVIS ANTIMONIALIS.

The history of this pharmaceutical preparation is of a most remarkable character, being confessedly an imitation of a secret or patent medicine of the last century,—the "fever powder" of Dr. James, a physician, who died in 1776, and who, contrary to the usages of the Profession, in a money-making spirit, retained to himself the method of its preparation, and enrolled it as a patent medicine. So great, however, was the success obtained by Dr. James by the use of this powder, conjoined with mercurials, in the treatment of fever, that his secret remedy has been frequently employed by the Medical Profession in similar cases; and its composition investigated by several eminent chemists. The specification lodged in the Court of Chancery by Dr. James in patenting his remedy, is curiously obscure; so much so, that, as Dr. Paris observes, it is "worded with all the ambiguity of an ancient oracle; and, as might be expected, it is impossible to prepare the "fever powder" by following the process described. The specification is as follows:—Take antimony, calcine it with a protracted heat in a flat unglazed vessel, adding from time to time a sufficient quantity of any animal oil or salt dephlegmated; then boil it in melted nitre for a considerable time, and separate the powder from the nitre by dissolving it in water. This process must, if performed according to the formula, yield antimonic acid; the primary calcination of the antimony or its sulphuret with an animal oil or salt would produce antimonious acid; but the fusion with nitrate of potass would raise the greater part, if not the whole, of the antimonious acid to the highest degree of oxidation of antimony,—antimonic acid. The analyses of James's powder, however, do not agree with the formula given for its preparation. The first series of analytical researches for the determination of the composition of James's powder was undertaken by Dr. Pearson, and the results given to the public in the "Philosophical Transactions for 1791," p. 317. As might be anticipated, from the state of analytical chemistry at that time, the analysis of Dr. Pearson is not of a very satisfactory character, and the statement founded on it in some of the earlier works on pharmacy are erroneous as to the proportion of antimony contained in the preparation. Pearson concluded that this powder is a triple salt of phosphoric acid, with sesquioxide of antimony and lime. Chevenix, who wrote in 1801 (a) on this subject, denies the existence of such a triple salt; for, after long digestion of sesquioxide of antimony with phosphoric acid, no antimony could be detected in the clear fluid, or phosphoric acid in the undissolved oxide; and equal parts of sesquichloride of antimony, separately precipitated by distilled water, and by a solution of phospate of soda, yielded a precipitate of the same weight; nor did the latter, after washing, contain any traces of phosphoric acid.

Pully, (b) a Neapolitan chemist, analysed a specimen of James's powder, with the following results:—

Antimonious acid	36·8
Sulphate of potass	23·7
Potass with sesquioxide of antimony ..	18·4
Phosphate of lime	21·1
	100·0

This analysis is manifestly erroneous, as no chemist, before or since, has detected potass in any specimen of this preparation.

Phillips, (c) who next entered on the subject, found that this powder, when boiled with distilled water, yielded a slightly turbid fluid, which retained its turbidity after filtration, yielded traces of antimony with sulphuretted hydrogen, and was rendered more turbid by nitrate of lead, indicating the presence of a minute quantity of phosphate of lime, which is sufficiently soluble in water to be detected by re-agents. The insoluble residue, boiled in hydrochloric acid, was partially dissolved, but the clear, filtered liquid was not precipitated by the addition of water, and only traces of antimony could be discovered by sulphuretted hydrogen. By the addition of ammonia in excess to the liquid, phosphate of lime was precipitated. The residue insoluble in hydrochloric acid was determined to be antimonious acid by igniting it with charcoal, dissolving in hydrochloric acid, and precipitating by the addition of water. Phillips concludes from his analysis, that this powder is composed of:—

Antimonious acid	56·0
Phosphate of lime	42·2
Sesquioxide of antimony, with impurities and loss	1·8
	100·0

Berzelius, (d) in describing phosphate of antimony, says that the antimonial, or James's powder, has been looked upon as a phosphate of antimony, but that it is nothing more than a mixture of antimonious acid with phosphate of lime, containing a minute quantity of antimonite of lime, which dissolves in water, and gives it a feeble, metallic flavour. An analysis performed by this celebrated chemist yielded about two-thirds of antimonious acid, one-third of phosphate of lime, which dissolved without effervescence in acids; and at most 1 per cent. of antimonite of lime soluble in water.

A further investigation was undertaken by Dr. Maclagan in 1838. (e) The results of his analyses of two specimens of this powder differ considerably from those of preceding analysts. It seems that the executors of Dr. James, or the parties into whose hands the patent-right had fallen, quarrelled, and two separate establishments claimed the right to manufacture the powder. He subjected specimens from

(a) Chevenix, Phil. Trans., 875. 1801.
(b) Annales de Chimie, LV., 74. 1805.
(c) Thompson's Annals of Philosophy, Second Series, VI., p. 187. 1832.
(d) Traité de Chimie, par Essilinger, IV., 481. 1831.
(e) *Edinburgh Medical and Surgical Journal*, XLIX., 464. 1838.

both sources to analysis, with no inconsiderable difference in the results.

Butler's James's Powder yielded—	
Antimonite and superphosphate of lime ..	2·25
Sesquioxide of antimony	9·80
Antimonious acid	34·21
Phosphate of lime	53·21
Loss	·53
	100·00

Newbery's James's Powder yielded—	
Matter soluble in water, containing 0·3 of antimonite of lime	3·40
Sesquioxide of antimony	2·89
Antimonious acid	43·47
Phosphate of lime	50·24
	100·00

He suggests that the sesquioxide of antimony may be combined as a double salt with the phosphate of lime, and that the efficiency of the remedy may be due to the sequioxide.

The fact, that the antimonial powder of the Pharmacopœias is, as we have said, an imitation of this patent medicine, and the reliance placed on the latter by many distinguished members of the Profession, has invested it with an amount of interest much beyond its intrinsic merits. For this reason, and to determine whether the proportions of its constituents continue the same, we shall in the present paper add another to the numerous analyses already noticed.

The pulvis antimonialis was first introduced into the London Pharmacopœia of 1787, avowedly as a substitute for James's Powder, and has retained its place, with some variations in the formula for its preparation to the present time. These variations in the process, however, have reference only to the proportions of the substances employed. In the first formula, equal parts of the sesquisulphuret and hartshorn shavings are directed to be employed; but in the Pharmacopœias of 1809, 1824, 1836, and 1848, the proportion of the horn shavings is doubled, and the name changed from pulvis antimonialis to pulvis antimonialis compositus; but the other steps of the process have undergone no modification.

In the preparation, it is directed that *one* pound of powdered sesquisulphuret of antimony be mixed with *two* pounds of horn shavings, thrown into a red-hot wide crucible, and constantly stirred until vapours cease to arise. The residue is to be rubbed to a powder, placed in a proper crucible, and heat gradually applied and sustained until it has been red-hot two hours. The residue is finally reduced to a very fine powder.

The explanation of this process is sufficiently simple. Horn contains an animal substance, which yields gelatine by boiling, with the same earthy salts as bone. When exposed to a red heat in free contact with atmospheric air, the animal matter is burned off, leaving phosphate with a small proportion of carbonate of lime. The sesquisulphuret of antimony, under the same circumstances, is oxidised, the sulphur escapes as sulphurous acid, and the antimony, taking oxygen, is converted into antimonious acid and sesquioxide of antimony, part of which is volatilised, while the remainder is retained unchanged. By the long-continued heat, the carbonate of lime of the horn is decomposed, the lime combining with the antimonious acid. The product consists, then, of antimonious acid, antimonite of lime, and sesquioxide of antimony, of which the proportions are subject to great variation on account of the uncertainty of the process. As the crude sesquisulphuret of antimony usually contains a small proportion of sulphuret of iron, and the horn an equally small proportion of phosphate of magnesia, peroxide of iron, and sometimes phosphate of magnesia, are found in this preparation.

The characters of the antimonial powder are such as might be expected from the preceding account of its composition. It is a fine white, somewhat gritty powder, which, when boiled with distilled water, yields a somewhat turbid fluid, which is not cleared by filtration, but by long-standing deposits a minute quantity of white powder, which consists of antimonite of lime with phosphate of the same base, the latter being sufficiently soluble in water to yield indications of its presence by appropriate tests. This turbid fluid yields white precipitates with oxalate of ammonia, proving the presence of lime; with acetate of lead showing the existence of phosphoric acid, and an orange-coloured precipitate with sulphuretted hydrogen, indicating the presence of antimony. The residue, insoluble in water, is partially dissolved in hydrochloric acid, which takes up the whole of the phosphate of lime and sesquioxide of antimony, leaving the antimonious acid unattacked. This solution, after filtration, is perfectly clear, and yields an orange-coloured precipitate of sesqui-sulphuret of antimony with sulphuretted hydrogen, and a white precipitate of phosphate of lime when supersaturated with ammonia. Pereira states, that this solution yields oxychloride of antimony by simple dilution with water, but the quantity of sesquioxide contained in the antimonial powder is often so small that no precipitate occurs on dilution, and the antimony can only be detected by sulphuretted hydrogen.

This preparation, like the true James's powder, has been examined by Phillips and Maclagan. Phillips(a), having acted on the powder with hydrochloric acid, decided that no sesquioxide of antimony was present, because no precipitate formed on the addition of water, and the precipitate first formed on the addition of caustic potass was not redissolved by excess of that re-agent; but he singularly enough omitted to employ sulphuretted hydrogen, which would have at once convinced him of its presence, although in minute quantity. The insoluble residue ignited with charcoal, readily dissolved in hydrochloric acid, and yielded an abundant white precipitate by dilution with water, proving that it consisted of antimonious acid; and he, therefore, determined that the pulvis antimonialis is composed of antimonious acid and phosphate of lime. Two quantitative analyses of samples from different sources yielded

Antimonious acid	35	38
Phosphate of lime	65	62
	100·	100·

Dr. Maclagan (b) gives the following as the result of an analysis of antimonial powder:—

Matter soluble in water (antimonite of lime?)	0·80
Sesquioxide of antimony	3·98
Antimonious acid	50·09
Phosphate of lime	45·13
	100·00

It has been a matter of question to which of the constituents of this preparation its activity must be attributed. Brande was of opinion, that its activity must be ascribed to the sesquioxide, and its frequent inertness to deficiency of that compound. Christison says, that "as the antimonious acid constituting the greater portion of the antimonial contents is well known to be inert in the free state, the activity of the preparation seems in all probability to be owing in part to the antimonite of lime, but chiefly to the sesquioxide; and, therefore, the great aim of the process should be to increase the proportion of that oxide, and to prevent it from being peroxidated. This object may be accomplished by regulating the degree of heat, the duration of the heat, and the access of air in the stage of incineration."(c)

There can be little doubt that the sesquioxide is the chief, if not the only active principle contained in the antimonial powder as in the original nostrum; for, if we refer to the analyses of both these remedies by Dr. Maclagan, we shall at once see that the quantity of antimonite is extremely small, amounting, in one analysis of James's powder, to only 0·3 per cent. out of 3·40 soluble in distilled water, while the whole soluble matter in the antimonial powder amounted to only 0·8 per cent. Even if it were more abundant, there does not seem to be any sufficient reason why the antimonious acid derived from the antimonite of lime should be more active than the free antimonious acid, which forms from 30 to 50 per cent. of the powder, unless it is supposed that the uncombined acid is rendered absolutely insoluble by the action of heat. We have not been able, moreover, to ascertain on what grounds the complete inertness of antimonious acid is founded, nor to discover any experimental essays on that compound. It is quite possible that, although the antimonious acid may be insoluble in the acid gastric fluid, it may be, to a slight extent, soluble in the alkaline bile. The proportion of sesquioxide in the antimonial

(a) Thompson's Annals of Philosophy, 2nd Series, IV., 266. 1822.
(b) Ed. *Medical and Surgical Journal*, XLIX., 464. 1838.
(c) Dispensatory, p. 137.

powder is extremely variable, as will be perceived by reference to the analyses we shall presently record.

Brande, in his "Manual of Pharmacy," states, that, in examining antimonial powder from different sources, although prepared according to the directions of the Pharmacopœia, he found it of very variable composition; sometimes containing antimonious acid only, at others a considerable quantity of sesquioxide, while in some few instances it consisted chiefly of bone-earth. He further states, that he had found it a matter of great difficulty so to conduct the process as to obtain a uniform product on a large scale; and he considers the tartar emetic as the only necessary preparation.

As the antimonial powder, from the constant variation of the proportions of its constituents, is confessedly an uncertain preparation, it has been more than once recommended to make a uniform preparation by mixture of definite proportions of sesquioxide and phosphate of lime.

Chevenix(a) proposed the following process:—Dissolve, separately or conjointly, equal parts of sesquioxide of antimony and phosphate of lime in the least possible quantity of hydrochloric acid, and pour the solution gradually into distilled water, to which an excess of ammonia has been previously added. Wash and dry the precipitate, which is a simple mixture of the oxide of antimony and phosphate of lime, in certain definite proportions.

Mr. Tyson(b) recommends the following powder as a substitute for the ordinary preparation:—

Sesquioxide of antimony, gr. ij.
Phosphate of lime, gr. xviij. mix.

The dose of this powder varies from 5 to 10 grains, and the writer says that he found a grain of the sesquioxide as large a proportion as could be borne. He obtains the sesquioxide by treating the oxychloride (which is precipitated when the sesquichloride is diluted with water) with carbonate of ammonia, until all the chloride is removed. Some practitioners, acknowledging the inertness of the pharmaceutical preparation, give activity to it by the addition of a minute proportion of tartar emetic.

The process we have employed in the following analyses is as follows:—A given weight of antimonial powder was introduced into a flask, excess of hydrochloric acid poured on it, and the whole digested for several hours, at a temperature approaching the boiling point. The acid solution was poured on a weighed filter, and the insoluble residue again digested with fresh hydrochloric acid. This was poured on the same filter, and the insoluble residue well washed. The filter was now dried and weighed, the additional weight being antimonious acid. The insoluble residue was determined to be antimonious acid by heating a given weight to redness; if antimonic acid it would lose weight, which was not the case; and, if sesquioxide, it would have been dissolved by the acid, or, escaping that, would have been partially volatilised by heat. The acid solution was next treated with sulphuretted hydrogen until it ceased to precipitate any more sesquisulphuret of antimony; the sesqui-sulphuret was well washed, dried, and weighed, and from this the amount of sesquioxide calculated. The acid solution, thus deprived of antimony, was precipitated by excess of caustic ammonia; the precipitate had usually a blackish tinge, which disappeared on free exposure to the air, owing to the presence of a small quantity of peroxide of iron in the preparation, which was reduced to protoxide by the sulphuretted hydrogen. This reverted to the state of peroxide by absorbing oxygen from the atmosphere. The phosphate of lime precipitated by the ammonia was washed, dried, heated to redness, and weighed. In two instances the preparation consisted of sesquioxide of antimony, entirely soluble in hydrochloric acid. These were analysed by dissolving a weighed portion in hydrochloric acid, and precipitating the whole of the antimony by a current of sulphuretted hydrogen.

Analysis 1.
True James's Powder.

Bought of Newbery, St. Paul's-churchyard:—

Antimonious acid	47·66
Sesquioxide of antimony	3·45
Phosphate of lime	48·89
	100·00

Analysis 2.

Bought of Mather, 520, New Oxford-street:—

Antimonious acid	36·60
Sesquioxide of antimony	3·97
Phosphate of lime	59·43
	100·00

Analysis 3.

Bought of Blakeley, Oxford-street:—
Consisted wholly of sesquioxide of antimony.

Analysis 4.

Bought of Hay, 33, Charing-cross:—

Antimonious acid	48·20
Sesquioxide of antimony	0·91
Phosphate of lime	50·89
	100·00

Analysis 5.

Bought of Priest, Parliament-street, Westminster:—

Antimonious acid	37·60
Sesquioxide of antimony	1·54
Phosphate of lime	60·86
	100·00

Analysis 6.

Bought of Wright, 134, High Holborn:—

Antimonious acid	38·80
Sesquioxide of antimony	0·69
Phosphate of lime	60·51
	100·00

Analysis 7.

Bought of J. Pepper, Tottenham-court-road:—

Antimonious acid	33·80
Sesquioxide of antimony	1·55
Phosphate of lime	64·65
	100·00

Analysis 8.

Bought of Elam, Oxford-street:—

Antimonious acid	49·00
Sesquioxide of antimony	1·38
Phosphate of lime	49·62
	100·00

Analysis 9.

Bought of Pritchard, 23, King-street:—

Antimonious acid	32·60
Sesquioxide of antimony	2·15
Phosphate of lime	65·25
	100·00

Analysis 10.

Bought of Galliers, Tottenham-court-road:—

Antimonious acid	34·40
Sesquioxide of antimony	0·34
Phosphate of lime	65·26
	100·00

Analysis 11.

Bought of Morris, Oxford-street:—

Antimonious acid	52·40
Sesquioxide of antimony	1·03
Phosphate of lime	46·57
	100·00

Analysis 12.

Bought of Rowland, Tottenham-court-road:—

Antimonious acid	30·40
Sesquioxide of antimony	1·03
Phosphate of lime	68·57
	100·00

Analysis 13.

Bought of Dalton, 1, St. Martin's-place:—

Antimonious acid	30·40
Sesquioxide of antimony	1·20
Phosphate of lime	68·40
	100·00

(a) Philosophical Transactions, 1801. 375.
(b) *Pharmaceutical Journal*, 1., 450. 1842.

Analysis 14.

Bought of Bannister, Oxford-street:—

Antimonious acid	35·60
Sesquioxide of antimony	1·72
Phosphate of lime	62·68
	100·00

Analysis 15.

Bought of Gifford and Linder, Strand:—

Antimonious acid	51·60
Sesquioxide of antimony	1·72
Phosphate of lime	46·68
	100·00

Analysis 16.

Bought of Stone, Oxford-street:—

Consisting *wholly* of sesquioxide of antimony.

Analysis 17.

Bought of Whitmore, Oxford-street:—

Antimonious acid	48·60
Sesquioxide of antimony	0·34
Phosphate of lime	51·06
	100·00

Analysis 18.

Bought of Watts, 17, Strand:—

Antimonious acid	42·00
Sesquioxide of antimony	3·62
Phosphate of lime	54·38
	100·00

Analysis 19.

Bought of Prichard, 65, Cockspur-street:—

Antimonious acid	39·39
Sesquioxide of antimony	2·41
Phosphate of lime	58·20
	100·00

Analysis 20.

Bought of Townsend, 75, Borough:—

Antimonious acid	51·00
Sesquioxide of antimony	3·97
Phosphate of lime	45·03
	100·00

In these analyses the loss was very small, seldom exceeding a few tenths of a grain, and, as the whole loss was evidently phosphate of lime, it has been estimated as such. The variation in composition of the antimonial powder sold in the shops is certainly very great. The antimonious acid varies from the minimum 30·4 to the maximum 52·40 per cent. The sesquioxide of antimony is equally variable,—its minimum 0·34, and its greater amount being 3·97; while the James's powder contained 3·45. The phosphate of lime corresponded to the variations in the other constituents. In two cases, (Analyses 3 and 16,) a fraudulent substitution of sesquioxide of antimony had been made; and it is by no means improbable that, had our researches been further extended, and specimens obtained from the inferior shops of the Metropolis, a greater proportion of instances of this unwarrantable substitution would have been brought to light. If, as is probable, the efficiency of the antimonial powder depends on the proportion of sesquioxide, and if Mr. Tyson's statements, which have been quoted in an earlier part of this paper, be correct, the ordinary dose of these samples would produce violent emesis, and might perchance endanger the lives of young children, for whom this preparation is most commonly prescribed.

In conclusion, it must be remarked, that all the analytical results tend to show, that the patent nostrum possesses little, if any, superiority over the ordinary antimonial powder,—a superiority by no means corresponding to the extravagant price charged for it by the vendors. Believing, as we do, that the activity of both preparations depends mainly on the sesquioxide of antimony, it is easy to render the antimonial powder equally efficient by increasing the dose. It is evident, that the two preparations are composed of the same constituents; but the manufacturers of the James's powder are somewhat more successful in regulating the proportion of sesquioxide than the manufacturing chemists. We hope, that the misplaced and exaggerated confidence of some members of the Profession in the nostrum will henceforth be destroyed, and that they will cease to afford their countenance to any form of quackery.

MEMOIR OF THE LATE WILLIAM LINDOW DICKINSON, ESQ., OF WORKINGTON.

[From a Correspondent.]

William Lindow Dickinson was born at Broughton, in Furness, in Lancashire, on Good Friday, 1788, and died at Workington, in Cumberland, on the 19th of March, 1853, so that he had nearly completed his sixty-fifth year. His father had been a pupil of Surgeon Stamper, of Workington, and this gentleman becoming aged and infirm, induced Mr. Dickinson to leave Lancashire and join him in practice at Workington, and from that period to the present (sixty years and more) this old-fashioned town has been possessed of perhaps the best surgical talent in Cumberland. Mr. Dickinson brought up two sons to medicine, both of whom became partners of their father's practice. William Lindow, the subject of our remarks, was an active, intelligent youth, zealously devoted to his profession. Before he had become a member of the Royal College of Surgeons, his skill and attention had gained him the confidence of some of his father's best patients. Workington being in the centre of a large colliery district, surgical cases were of frequent occurrence, and an extensive field for practice in the treatment of burns, amputations, etc., was afforded him; these opportunities he gladly availed himself of in the cultivation of a more correct surgery than falls to country practitioners in general. Probably another circumstance weighed with him in selecting the field of surgery for the display of his talents, and that was, the annual visit of "the Bells, of Edinburgh." To metropolitan readers it is necessary to explain, that, fifty years ago, surgical operations were little practised in Cumberland, so that John and Benjamin Bell, whose writings and position in Edinburgh had gained them considerable celebrity in the northern counties of England, found it to their advantage to become itinerant surgeons once or twice a-year, and, accordingly, the larger towns in the district being cognizant of the proposed visit, all important cases requiring the knife were, if possible, made to wait the "Edinburgh Doctors." Whether the fame of the Bells, or his own natural bent of mind, that led Mr. Dickinson to cultivate so successfully the field of surgery, is not easy to determine; suffice to say, that after performing various amputations, excision of the mammæ, the operation for hernia, etc. etc., he was bold enough to tie the external iliac artery for an aneurism high up in the thigh thirty-five years ago! The success of this operation, in which he was assisted by his brother, naturally increased his confidence as an operator. Having rivalled, as it were, the great surgeons of the day, for the tying of the iliac was then a rare event, he never hesitated to perform the most difficult operations. In cases of hernia he was remarkably successful; the same may be said of his lithotomy cases. In midwifery he had most extensive experience, and many long journies he had,

"Over fell and muir,"

during an active period of more than forty years. He attended about 7000 cases, and when he had the charge of the case from the commencement, it was his good fortune never to lose a woman! His fame as an accoucheur was great, and his surgical skill stood unrivalled by any of his countrymen; his strictly medical attainments were no less conspicuous. In the ordinary routine of cases he was remarkably quick in seeing what should be done; while, in those of an obscure kind, his great tact in eliciting the history, along with a careful investigation of symptoms, enabled him very generally to arrive at a correct diagnosis.

With all his numerous engagements, he did not lag behind the rapidly-advancing steps of medicine. The physiological discoveries of Reid, and the generalizations of Marshall Hall, no less than the improvements of surgery, were fully appreciated by him. Though devoted to his Profession, he was not unmindful of his duties as a citizen and a man of the world. In all matters pertaining to the social enjoyments and general prosperity of Workington, he took an active part; and the Curwens, the great patrons and benefactors of the town, always found in Mr. Dickinson a zealous coadjutor in their labours of philanthropy. He was a county magistrate for many years, and truly assiduous in the discharge of his duties. He filled other important and responsible situations, in all of which he claimed the respect and esteem of his fellow-citizens. Being in the enjoyment of property and a lucrative practice, he was enabled to have the comforts

and elegancies of life around him, and his hospitality was most bounteous. He was approaching the middle period of life before he married, and his choice was a happy one. Two daughters were the result of this union; they are left to regret the loss of an indulgent and affectionate father, and Mrs. Dickinson that of a kind husband.

In practice, Mr. Dickinson is succeeded by his nephew, who bears his honoured name.

REVIEWS.

On Diseases of Women and Ovarian Inflammation, in Relation to Morbid Menstruation. Sterility, Pelvic Tumours, and Affections of the Womb. By Edward John Tilt, M.D., Senior Physician to the Farringdon General Dispensary, etc. Second Edition. 8vo. Pp. 276. London: Churchill. 1853.

This work can hardly be called a second edition, since it contains so much novel and important matter that it really forms a new treatise, and, as such, deserves more notice than we usually pay to a mere reprint. In the Introduction there is little calling for comment, but in Chapter I., headed "*Propter Ovaria sola Mulier est quod est,*" we find an interesting account of the theories of menstruation, from the early period when the uterus was thought to be the organ chiefly concerned in the phenomena of menstruation and generation, down to the last few years, to the time when it was proved, that "the ovary is the workshop of generation," and that in this organ is seated the cause of the menstrual flow. That the ovary is the only essential part of the generative system is then proved by the recital of several well known facts, together with the histories of a few clearly condensed cases, after which Dr. Tilt well remarks:

"Not satisfied with affirming that the ovaries determine the menstrual flow, many of the experimental physiologists who have thrown so much light upon menstruation, assert, that it is invariably caused by ovulation, and always accompanied by shedding of ovules from the ovary. Pouchet and Raciborski in France, Bischoff and Baer in Germany, Drs. Robert Lee and Martin Barry in England, are among the warmest supporters of this position. It has, however, been considered, premature, by many of those who have been able to test its fallacy after careful observation in a large field of inquiry. Thus, in three cases in which Dr. Ashwell had opportunities of examining the ovaria of women who died during the flow of the catamenia, there were no signs of the rupture of Graafian vesicles and the escape of ovules. In one of these cases the woman had menstruated regularly for several years, and yet the ovaria were perfectly smooth; 'there was neither rent nor cicatrix marking the site either of a present or former maturation and escape of a Graafian vesicle.' Still, Dr. Ashwell admits the periodic return of ovarian excitement as the condition of menstruation, though this excitement may not always reach the point of maturing and discharging ovules."—P. 27.

The author then refers to Mr. Paget's report of the appearances found in the body of Maria Manning, who began to menstruate about twelve hours before her execution. In the right ovary, three Graafian vesicles projected slightly on the surface, and looked healthy, containing clear serous fluid; there was also a fourth of larger size. In the left ovary, one Graafian vesicle was fully developed, and prominent. Ova were carefully searched for in the contents of all these, but in vain. The surface of the ovaries was found rather more vascular than usual, but there was no peculiarly vascular spot, nor any appearance of the recent rupture of a vesicle, or the discharge of an ovum. Notwithstanding these cases, however, which are the only ones with which Dr. Tilt is acquainted wherein menstruation was evidently neither accompanied nor caused by ovulation, the author still leans towards the views of Bischoff, and we cannot but agree with him.

The Second Chapter is devoted to the Natural History of Menstruation, and headed by the following definition:—"Menstruation is constituted by an ovarian nisus, manifested by nervous symptoms, relieved by critical discharges, principally from the internal surface of the womb, and recurring according to a monthly type during the reproductive period of the lifetime of woman." The laws and rules of each of the phenomena of menstruation are then pointed out—the consideration of the exceptions being reserved until afterwards—the various symptoms being discussed both in their physiological and pathological bearings. The causes which modify the period of first menstruation are admirably laid down and fully considered under the different heads of family, race, national customs, temperature, habitation, and civilisation. In this part of the inquiry, the researches of Dr. Tilt have done much to remove many of the difficulties by which the subject was surrounded, while his industry in searching for the facts of others, and so basing his conclusions upon results drawn from large statistics, are beyond all praise. The same remarks apply to the third and fourth chapters on Type in Menstruation, and on the Ovarian Nisus, which well deserve perusal unabridged. The following therapeutical indications during the menstrual epochs are deserving attention:—

"1. The strength of the menstrual force should be promoted by warmth, exercise, exhilarating emotions, and stimulants. 2. It must not be checked by cold, by overexertion, by fright, by strong mental emotions, or by medicine. We shall have another occasion for studying the influence of these modificators of the menstrual nisus; we merely conclude with some observations on medicine given at the menstrual periods. We entirely agree with popular prejudice, and with the almost unanimous voice of the Profession, that it is dangerous to administer any strong medicines to patients at the menstrual epochs unless the complaint be of a serious nature, in which case it must be treated without any regard to the catamenial function."—P. 60.

Passing over some chapters devoted to the consideration of the ganglionic, cerebral, and spinal symptoms of menstruation, and to the critical discharges which occur at this period, we arrive at chapter 9, on "The Sanguineous Discharge of Menstruation," in which the author states his belief, that the first origin of the menstrual discharge is to be found in the ovary; the second origin, in the whole surface of the generative intestine, *i.e.*, that the menstrual secretion may take place both from the Fallopian tubes and uterus; and that the third and principal source is from that portion of the internal surface of the womb which is lined with the decidual membrane. Speaking of the nature of the catamenial fluid, the author says:—"Microscopically examined, the menstrual fluid is found to consist of—1. Numerous blood corpuscles. 2. Mucous globules. 3. Epithelial scales. 4. Blood serum. 5. Mucous fluid, Much time has been lost by some authors in attempting to prove, that the menstrual flow was only an excretion; others pretend that it is a secretion; in truth, however, it is both one and the other; for, if the blood flows from the womb by imperceptible pores, as it does from the skin in cases of vicarious menstruation, the mucus, with which it is mixed to constitute the menstrual flow, may be modified in quantity and nature like all other secretions. Before examining briefly the quantity and quality of the menstrual flow, we must allude to another effect of the ovarian nisus on the body of the womb,—the production of a decidual membrane. A few days after the sanguineous flow has ceased, a magma is passed with the mucous flow. When examined, it is more or less extensive, elastic, and of a bluish tint. It is found to be albuminous by chemical tests; and the microscope shows that it is formed by the cylindrical epithelial cells which line the uterine cavity. Such, at least, is the result of Pouchet's elaborate investigation, which proves, that this catamenial exudation is an abortive attempt to place the uterus in a position to receive and attach the ovum to its cavity. Such is the *normal* condition; but, at other times, the virgin womb produces at each menstrual period a smooth, velvety, false membrane, in everything like the decidua, except that it contains no fœtus. This false membrane, as Coste remarks, would be called a product of inflammation, if met with on any other mucous surface. In other women, unmarried as well as married, this membrane may increase, combine with the solid constituents of the blood, and come away as an ovoid 'mole' in the midst of parturient pains. These phenomena seem to be the result of a morbid ovarian nisus, and we think it would be well to give to them exclusively the term of *ovarian dysmenorrhœa.*" P. 111.

The remaining chapters—on the Mucous Discharges of Menstruation, on the Intestinal Discharges which sometimes occur at the same period, and on the Influence of the Ovarian Nisus on the Cutaneous and on the Urinary Surfaces—

contain nothing with which our readers are not acquainted; while the sections devoted to the consideration of Acute and Chronic Ovaritis, and on the causes, diagnosis, results, and treatment of these affections, though improved and enriched by some new cases, are yet essentially the same as in the first edition of this book, and need not, therefore, claim our attention. Having, then, attempted to give our readers some idea of the most important points in the new matter brought forward by Dr. Tilt, it only remains for us to recommend the entire treatise to their careful perusal. It affords us the more pleasure to speak thus favourably of the present work, since we have not, on all occasions, been able to give Dr. Tilt that praise and credit for his literary labours which we are at all times really anxious to give, and which, we trust, for the future, he will always put it in our power to bestow.

Homœopathy; its Tenets and Tendencies, Theoretical, Theological, and Therapeutical. By James Y. Simpson, M.D., F.R.S.E. Pp. 292. Third Edition. Edinburgh: Sutherland and Knox; London: Simpkin, Marshall, and Co. 1853.

We rise from the perusal of Dr. Simpson's work with feelings, first, of profound admiration for the ability displayed by the learned author in the performance of his task: and secondly, of regret that so much talent should have been expended upon so worthless a theme as that which he has selected. To ourselves, it is a melancholy sight to view the accumulated labour and experience of years engaged in overthrowing a doctrine and a practice which could have sprung only from a mixture of credulity, ignorance, fanaticism, indecency, and imposture. Yet such, unhappily, has been the progress of the homœopathic quackery in all classes of society; and so great is the mischief which it has already done and is still doing, that we cannot deny the public service rendered to science and to the best interests of society by works like the present, which boldly confront the public enemy, or, when he lurks in ambush, drag him forth to the light of day.

Dr. Simpson's book is well known as a fearless and uncompromising, yet temperate and judicious exposure of the miserable follies and frauds of homœopathy; and the fact that it has reached a third edition proves that its circle of readers has been numerous. It is not too much to say, that no person with unprejudiced feelings, with ordinary talent, or with common honesty, can fail to be convinced, by this luminous treatise, of the utter worthlessness of the so-called science; and our only fear is, that it will not be read by those to whom it would be found of essential service, namely, the deluded followers of Hahnemann's doctrines, and the victims of his infinitesimal doses. That any person of sane mind could resist Dr. Simpson's luminous reasoning, appears to us to be a matter hardly within the limits of possibility.

GENERAL CORRESPONDENCE.

ON DEAFNESS, AND DESTRUCTION OF THE MEMBRANA TYMPANI.

[To the Editor of the Medical Times and Gazette.]

Sir,—I have been much interested in the extract from "Tod's Anatomy and Physiology of the Organ of Hearing," which appears in the *Medical Times* of March 11, affording as it does another confirmation of the important mode of treatment which it was my good fortune to introduce to the notice of the Profession, and the benefits of which many of my patients are now daily experiencing. But not only by Tod, but by Itard and Deleau, had the fact been noticed, as the following quotations from their works will show, and to which I directed attention in a paper published in (if I remember rightly) the *Provincial Association Journal* three or four years ago. In relating a case of a long existing otorrhœa, complicated with destruction of the membrana tympani, and fungoid growths in the meatus and tympanum, M. Itard observes:—

"Je m'aperçus que ce jeune homme recouvrait l'ouïe pour quelques minutes à la suite de la douche que je lui faisais donner chaque matin dans le méat auditif; bien que les deux oreilles fussent affectées de la même lésion et eussent été traitées de même, ce rétablissement momentané de l'ouïe par l'humectation ne s'observait que sur la droite. Pour rendre cet effet plus durable j'essayai de porter dans l'oreille un tampon de coton mouillé pas assez volumineux cependant pour la boucher complétement. Le succès de cette application fut complet; mais il ne se manifesta que lorsque, comme je l'ai dit plus haut, ce corps étranger toucha au fond de l'oreille, lequel dans ce cas devait être la caisse elle-même. Il fut très facile à ce jeune homme d'apprendre à placer lui-même cet officieux bouchon dans son oreille, et de la maintenir ainsi constamment dans un état analogue à la guérison la plus complète."—*Traité des Maladies de L'Oreille*, p. 92.

Conclusive and satisfactory as was the result of this simple application, no advantage appears to have been taken of it in similar cases, for not another word is mentioned of its remedial agency in a work exceeding nine hundred pages!

Again, M. Deleau, in a "Memoir sur La Perforation de la Membrane du Tympan," relates the case of a patient who suffered from diseased tympana accompanied by otorrhœa.

"Richalet introduisit machinalement un petit morceau de bois dans l'oreille gauche; aussitôt, quelle fut sa surprise! tous les bruits que l'on faisait dans la rue vinrent frapper son ouïe. Mais aussi quel fut son déplaisir une fois que ce precieux morceau fut retiré du conduit auditif! Aujourd'hui à force de tâtonner, il paroient à entendre assez bien à voix ordinaire, quand il porte dans l'oreille gauche un germe d'oignon qu'il remplace par un autre chaque cinq ou six jours, ou quand il se dévie du lieu qu'il doit atteindre pour donner de la sensibilité à l'ouïe. Cet homme a repété souvent ces mêmes essais sur l'oreille droite, mais il n'est parvenu à aucun résultat."

This important fact is thus cursorily demonstrated in a foot note of a work professedly upon "Perforation of the membrana tympani," the very description of case in which alone the moistened cotton is of any avail. In conclusion, I take the opportunity of adverting to two points in reference to this interesting subject.

In the paper published in the *Lancet* in 1848, I stated that it was from an American that I took the hint of introducing the moistened cotton; but, in point of fact, it was an English gentleman who came over from New York to consult me, an eminent artist, still resident in this country.

Secondly, in regard to the *modus operandi* of the remedy. By the destruction, partial or complete of the membrane, the chain of bones lose their support; the cotton delicately adjusted, re-supplies that support; so long as it retains its position the improved hearing is maintained, the moment it becomes displaced, the hearing is lost. Finally, in its adjustment, care must be taken not to cover up the perforation of the membrane;—it is a *sine qua non* that an opening be preserved with the outer air. I am, &c.

15, Savile-row. Jas. Yearsley.

P.S.—The postponement of the publication of the above letter affords me an opportunity of a word of comment on the communication of Mr. Toynbee, which appeared in your Number of March 26.

Notwithstanding the assertion of that gentleman to the contrary, I do not think that any member of the Profession will give him credit for originality in the method he has proposed for the treatment of perforated tympana, not that it is worth cavilling about, for though it may serve his purpose, I reiterate that it will not accomplish that which he asserts respecting it, and for the following reasons:—

From numberless experiments of my own, to improve upon the cotton wool remedy, I can safely affirm, that no substance or apparatus, less simple or inoffensive than the cotton wool, can be worn by a patient, without causing a degree of irritation which is positively unbearable, and even perilous. Subsequently to my announcement of the cotton-wool remedy, M. Deleau, of Paris, proposed an appliance somewhat similar to that now proposed by Mr. Toynbee, *and failed*. But not only has Mr. Toynbee committed an error as to the means, but he has, relying upon a false theory, mistaken the principle upon which all such modes of treatment can possibly succeed. To close up the perforation and reproduce what he calls a shut chamber, is positively to deprive the patient of the little hearing he may happen to possess. For on the truth of two points I pledge my Professional reputation. Firstly, it is absolutely essential to success, that whatever be the remedy used, an opening be preserved with the outer air; in other words, that a shut chamber be *not* produced. Secondly, that the *modus operandi* consists in the application restoring the support to the ossicula, or the remaining portion of membrana tympani, of which the one or the other may have been deprived by the partial or entire loss of the same membrane.

Permit me to ask, upon what grounds Mr. Toynbee associates the name of Mr. Tod with mine, in the title to or merit of this important invention? Like Messrs. Itard and Deleau, Mr. Tod was undoubtedly an observer of the fact, but no more. In like manner, the Gloucestershire milkmaids made known to Dr. Jenner

their immunity from small-pox. Not only on this question, but on others which I could name, Mr. Toynbee does not appear to me to appreciate the maxim of

Palmam qui meruit, ferat. J. Y.

MEDICAL REFORM.—THE PROVINCIAL ASSOCIATION, THE DRAFT CHARTER OF THE COLLEGE OF PHYSICIANS, AND THE GENERAL PRACTITIONERS.

[To the Editor of the Medical Times and Gazette.]

Sir,—Whatever your own political opinions may be, and however you may disagree with the sentiments of the enclosed letter, which I have forwarded to Lord Palmerston, I trust, at this important crisis in medical affairs, that you will not deny it a place in your pages.

You, Sir, are fully aware, judging from some of your leading articles, that the general practitioner, the physician, and surgeon of the multitude, is not fairly represented in this Bill of the Provincial Association; and the proposed Charter of the College of Physicians and its emendations, about which we are entirely in the dark, may so square with the views of the rulers of the Association, as to give the almost entire control of the education and examination of the general practitioner to the Colleges of Surgeons and Physicians, an event (looking to the past histories of these Colleges) that would not only place the great bulk of the medical profession in a more dependent position than at present, but would serve to perpetuate and enforce a system of grades which are, I think, alike derogatory to science, and to the members of a liberal profession. I am, &c. Edwards Crisp, M.D.

21, Parliament-street.

To the right honourable the viscount palmerston.

My Lord,—In the report of the Deputation to your Lordship on the 18th of March, on the subject of a Medical Reform Bill, some errors occur which I am desirous of pointing out to you.

I have, my Lord, for nearly twenty years, been a zealous advocate for a faculty of medicine upon the representative principle of Government—public examinations, and election by concours at our Royal Hospitals; I, therefore, my Lord, can consistently oppose the introduction of such a Bill as the one framed by the rulers of the Provincial Association,—a measure, my Lord, which, if allowed to pass in its present form, will, I believe, serve to perpetuate the evils from which we have so long suffered; for under the cloak of liberality and uniformity of examination, it covertly encourages a system of grades and unmerited distinctions, which are alike inimical to the progress of science and the welfare of the public. There should be no grades, my Lord, in the sick man's chamber; death knows no distinctions; a disease will not, to suit the taste of the pure surgeon and physician, confine itself to their limits; and yet, my Lord, the Corporations—especially the Colleges of Surgeons and Physicians—who have uniformly supported this system, are to have the chief control of the education and examination of the General Practitioner, who, possessing usually both a medical and surgical qualification, is, in many respects, superior to the pure members of these Colleges. My Lord, the General Practitioners, the physicians and surgeons of the multitudes, from whose ranks many of the best men in our profession have sprung, are, under this Bill, unrepresented. But, my Lord, let me come to the chief object of this letter, viz., the errors in the report of the Deputation. (*Medical Times*, March 26.) It is there stated that the Bill has been repeatedly submitted to the profession "through the Medical Societies." Why, my Lord, the Bill, I believe, has not been brought before any Medical Society in London, Edinburgh, or Dublin; and the following account of the proceedings of one of the district meetings will show, that some of the framers of this Bill have not been very just in their political proceedings. To use an election phrase, "they have been rather warm partisans."—(*Provincial Journal*, August, 1851.)

Another grave error, is that under which your Lordship appears to labour, viz.:—"The varied character of the Deputation;" and, before I point it out, allow me to remind your Lordship of a fact with which you are probably not acquainted. The Colleges of Surgeons and Physicians are in a state of bankruptcy; and, to replenish their empty coffers, to improve the *res angustæ domi*, or, in British parlance, "to raise the wind," their charters will enable them to sell titles, the former College demanding ten guineas, and the latter, it is reported, values its parchment at twenty-five guineas,—dubs a man a physician by a golden touch, but gives him no right, like the charter of the Veterinary College, in the management of the affairs of the Corporation.

And now, my Lord, observe the bearing of the above remarks upon what you call the "varied character of the Deputation." My Lord, there is a singular uniformity among the members of this Deputation, for, on examination of their qualifications, I find, that out of the twenty nine gentlemen who appeared before your Lordship, thirteen (including the President of the Association) are Scotch M.D's., not legally qualified to practice medicine in England, but who will become so by the kind of auro-mesmerio touch before alluded to. Three are Fellows of the London College of Physicians; and of the thirteen surgeons, six have no medical qualifications; seven are members both of the Hall and College, and all are, or may become, Fellows of the College of Surgeons by the payment of ten guineas.

In making these remarks, my Lord, I mean not the slightest disrespect to the gentlemen alluded to; but I have a right to ask whether this Deputation can be really said to represent the opinions of the great bulk of the medical profession of England?

When, my Lord, I remember your remark about the necessity of a "clean sweep of the Ecclesiastical Courts," I am induced to hope that you will look well into the history of the Medical Corporations before you give your sanction to this measure. Remember, my Lord, that it is one of life or death, and that the so-called vested rights of antiquated clubs and exclusive colleges should have no weight in the consideration of this vital question. Establish a Faculty of Medicine in London, Dublin, and Edinburgh, let honours and rewards be open to all, without favour or affection, and our metropolis will become, like Paris, the resort of foreign students, and England may then boast of her superiority in medical science, as well as in commerce.

I may observe, in conclusion, my Lord, that I have no personal interest whatever in this matter; but, as an old medical reformer, I could not consistently allow a measure like this to pass without entering my feeble protest against it; and I am much mistaken if this opinion is not shared in by the majority of the members of the medical profession of this country.

I have the honour to be,
Your Lordship's obedient servant,
Edwards Crisp, M.D.

21, Parliament-street, April 4, 1853.

[We have given insertion to Dr. Crisp's communication, but we do not identify ourselves with all the sentiments which it expresses.—Ed.]

EPILEPSIA LARYNGEA FROM DIFFICULT DENTITION, TREATED BY CHLOROFORM IN PLACE OF TRACHEOTOMY.

[To the Editor of the Medical Times and Gazette.]

Sir,—Being from home when called to see Elizabeth P., aged 2 years, who had been some time in violent convulsions, a medical neighbour attended, and prescribed all the usual remedies, excepting tracheotomy, which proved of no avail; and on my return, ten hours after the commencement of the fits, life seemed ebbing fast, the child apparently asphyxiated from spasm of the larynx. Having some chloroform with me, I at once administered it, placed the feet in hot mustard and water, and a sinapism over the chest, which producing a favourable change, I continued the inhalation at intervals for twenty minutes, when she fell into a composed sleep, required only a purgative dose the following day, and is now quite well.

In laryngismus stridulus I have several times lately used chloroform with unfailing success. I am, &c.

Wanstead. Frederick Collins, M.D.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Dr. Copland, President, in the Chair.

CASE OF GANGRENA SENILIS SUCCESSFULLY TREATED BY AMPUTATION OF THE THIGH.

By F. W. GARLIKE, Esq., Rickmansworth.

(Communicated by Mr. HAYNES WALTON.)

William A——, aged 69, labourer, an extremely emaciated man, of sallow complexion, marked with the small-pox, bald, and toothless, suffered since May 1 from a small painful sore on the great toe of the right foot, accompanied with shooting pains in the leg.

He continued work until May 11, when he came under Mr. Garlike's care. The toe was then slightly inflamed; the foot exhibited a dry, scaly appearance; there was no sense of feeling in the smaller toes, and the temperature was below the natural standard. The left foot was similar in appearance, but free from any wound. No pulsation could be felt in the right femoral artery below the superior third; the iliac arteries pulsated softly. About the middle of July the whole foot was converted, as far as the instep, into a black slough; he suffered the most intense pain, and the delirium was almost constant; pulse 105—120. In August a line of demarcation formed across the dorsum of the foot; florid granulations presented themselves, and the pain became less. The patient took bark, ammonia, and opium. Next, a large collection of matter formed in the leg; it burst spontaneously below the head of the tibia, and discharged a quantity of purulent fluid. After a fortnight it healed, with the exception of a small fistulous passage leading to the bone. In a few days a second collection formed, which pursued a similar course. Afterwards matter collected in the knee-joint; and on September 20 the synovial membrane gave way just in front of the internal lateral ligament, and gave exit to more than a pint of pus. The patient's health improving somewhat, Mr. Garlike determined upon amputation of the thigh. Mr. Haynes Walton, to whom the case was subjected for opinion, did not speak encouragingly of the operation, but he thought that pure country air gave the patient a better chance than he would have in an hospital. At this period some cases had been treated in this way by Mr. Fergusson, at King's College Hospital. Mr. James, of Exeter, also has published similar cases in his work on Inflammation. Amputation was performed by Mr. Garlike on September 30, as near to the trunk as possible. After the first gush of blood the patient became faint and insensible. Every vessel was tied as it was divided. The femoral artery being ossified to two-thirds of its circumference, a ligature was applied to this vessel in a series of convolutions, the single thread being sufficient to cut through the ossified coats. The case terminated favourably; the stump was excellent, and the patient shortly gained both weight and strength. A small ring of bone exfoliated from the extremity of the sawn femur some weeks after the operation. Mr. Garlike prefers to remove the limb as near the trunk as possible, at which point, in all probability, the principal vessels will be found capable of performing their functions.

Mr. John Adams had seen an instance in which treatment similar to that practised in Mr. Garlike's case was adopted with success. In the instance to which he alluded, amputation was performed on a man 60 years of age, suffering from senile gangrene, and recovery ensued. He had seen another case, not exactly of senile gangrene, because it was that of a young man, but of gangrene dependent in a great measure on disease of the arteries, and therefore resembling senile gangrene, in which amputation was performed in the middle of the thigh with success. The particulars were as follow:—A surveyor, 23 years old, was admitted into the London Hospital about seven years ago, suffering from mortification of the foot, consequent on exposure to cold. The affection began with acute pain, which was gradually followed by loss of vitality in the part, progressively extending towards the trunk. The femoral artery seemed, on careful examination, to be impervious in its whole extent; and no pulsations of the external iliac could be perceived. The mortification advanced close up to the knee, but there it at first seemed inclined to stop, and some traces of a line of demarcation showed themselves. These, however, disappeared, and the gangrene proceeded. The thigh was, as a last and only resource, amputated in its middle; very few vessels were secured, the femoral artery itself being plugged and impervious. The patient went on remarkably well, and the stump healed without any indications of re-appearing mortification. The same individual was admitted into the hospital in the following year with pain in the remaining foot, similar to that which preceded the gangrene in the member that had been cut off. This symptom was therefore regarded with the greatest apprehension. In a short time, however, all the pain completely subsided, and the man left the hospital quite well. Now, in this case it would perhaps be difficult to refer the mortification that was set up to any particular cause; for, although it commenced after exposure to cold, yet the cold was by no means intense in degree, and scarcely sufficient to produce such serious results. In all probability, a predisposing cause existed in a weakness of structure, or disease of the arterial system, which enabled the trivial degree of cold to which the patient was exposed to exert so powerful an influence on his tissues. It was noticed that the heart's impulse was very feeble, and the circulation generally weak.

Mr. Fergusson was anxious not to let this opportunity pass without expressing his opinion on the important subject which had been brought before the Society by Mr. Garlike. On questions of such difficulty he felt sure that all the information which could be accumulated must prove useful. The author, in his paper, had adverted to a case of gangrene, for which amputation was performed by himself, at King's College Hospital, without success. He was glad that the author had not been deterred by the unfavourable termination of that case from resorting to a similar treatment under such desperate circumstances,—a treatment which, as the event proved, saved the life of his patient. This instance afforded a proof that no rule in surgery, however applicable it might be in the majority of cases, ought to be implicitly followed on all occasions. The author had, in the present case, displayed his judgment in deviating from one of the established rules in surgery; and he (Mr. Fergusson) was bound to say, that such departure was fully justified by the emergency in which he was placed. But, although, in a few solitary instances, circumstances might arise capable of inducing a judicious and enterprising surgeon to violate the laws dictated by experience, and amputate for gangrena senilis, and though, as the example related to the Society and other recorded instances proved, such an operation might eventuate in success, yet, on the whole, he thought the rule of non-interference in such cases was a sound one, and could rarely be neglected with impunity. The author had made some valuable observations respecting the operation itself in these cases, especially in adverting to the importance of amputating high up in the thigh, so as to be, if possible, above the disease in the arterial system of the limb—this was a point well worthy of attention, and one which, if followed, might conduce to the success of future operations. In his own (Mr. Fergusson's) the thigh was amputated low down, and this circumstance might have helped to establish the subsequent sloughing. There were, he believed, many so-called examples of senile gangrene, which had no right to be included under that head, for the individuals constituting them manifested no evidences of senility. It was, therefore, clear that the gangrene from which they were suffering could not be "senile." A case occurred under his own charge, in King's College Hospital, the subject of which was attacked by a mortification in the extremity, exactly similar to "gangrena senilis;" but there was no senility. He believed that the term "senile" was an incorrect qualification; for a gangrene, similar in every respect to that so designated, not infrequently attacked the young; and, if the disease called senile could be proved not to be peculiar to the old, then the appellation involved an error, and should be discarded. He thought that this form of gangrene, which seemed to be chiefly dependent on disease of the arterial system, should be distinguished from other forms. He had seen instances in which mortification spontaneously manifested itself, and others in which it supervened on compound fracture, and it was undoubtedly necessary that a due distinction should be made between the various forms of such an affection. In conclusion, he would repeat his conviction, that as a rule it was better to abstain from operative interference in gangrena senilis; but still, he acknowledged circumstances might arise which would render the recourse to amputation not only justifiable, but expedient.

Mr. Arnott considered, that one of the most interesting points in the author's communication was the importance of performing amputation high up, so as to cut off the limb, if possible, at or above the spot where the arterial pulsation ceased, and consequently where the vessels might naturally be supposed to be in a more healthy state. This he thought was a practice well worthy of imitation. He had never removed a limb himself for senile gangrene, except when the dead soft parts had already separated from the living, and the bone alone remained, but had seen this proceeding adopted by others without success, the patients having perished from renewal of mortification in the stump. The term "senile gangrene" was a bad one, because, as had been truly observed, this mortification was not peculiar to senility, but occasionally attacked the young also. Cases had been observed at three years of age; and Mr. Solly, in a paper read before the Society, mentioned instances of this nature. Tiedemann, who had placed on record numerous examples of this affection, related several in which it was manifested in young persons. Spontaneous gangrene would be a preferable designation if it were understood that "spontaneous" signified only the absence of injuries and such external causes as might operate to produce mortification, but not of internal disease—disease of the arterial system, for example. Senile or spontaneous gangrene depended generally on disease of the great vessels of a limb and subsequent closure of their tubes; and such a disease might attack, most certainly, both young and old. In the year 1844, he was summoned to see a young gentleman at Brighton, in whom gangrene of the foot had commenced, attended with complete absence of pulsation in both the tibial and popliteal arteries. Calomel and opium were administered, and the mortification having stopped,

the toe was finally removed by the cutting pliers. Recovery ensued, but it was not till last summer that he (Mr. Arnott) had been able to discover that the posterior tibial artery in the affected leg of this gentleman was pervious and pulsating. During the past winter, this patient suffered from acute pain in the other limb, which, it was feared, would terminate in mortification. Fortunately, however, it subsided without producing injury. He remembered, also, being called to see a lady, the lower half of whose leg had perished and become mummified. The great vessels of the limb were plugged. The mortification extended, and the patient died. He entertained no doubt that mortification of this character—mortification by which a limb, or part of a limb, became, to use an expressive term, "mummified," proceeded, in some instances, from arteritis, by which the great arteries were rendered impervious. Dr. Mott had recorded a case in which he performed amputation of the thigh for an affection of this nature with success; and he (Mr. Arnott) thought it was possible that by attending to the practice of the author, and selecting the spot at which the pulsation ceased as the one most eligible for amputation, the lives of some patients might hereafter be saved, by removing the limb that had perished.

Mr. Burford Norman, who was imperfectly heard, was understood to say, that he did not consider the author's case to be an exact example of gangrena senilis, because latterly a sthenic inflammation had been set up, which argued the existence of a certain amount of power calculated to enable the patient to resist the depressing effects of the operation with success. Mr. Norman referred to several cases of mortification, arising from various causes, in which amputation had been resorted to, and recovery of the patients had followed.

Mr Haynes Walton observed, that reference having been made by the author to the cases of amputation for gangrena senilis, reported by Mr. James, of Exeter, he would state, that Mr. James always amputated high up in the thigh, selecting, if possible, a spot where the circulation was good, and naturally carried on. In one of Mr. James's cases, both limbs had been amputated with success. The subject of the communication now before the Society was going on quite well, being apparently restored to vigorous health.

Mr. Garlike said, the patient, whose case he had submitted to the Society, was at present in good health, and had recovered entirely from the consequences of the operation. He was, however, apprehensive that before long surgical assistance would be called into requisition for the remaining limb, for the circulation therein was excessively languid, and the pulsation of the great vessels almost imperceptible. With respect to the observation, that the case was not a pure example of senile gangrene, he could only say, that if it were not, then it was an example of an affection precisely similar to senile gangrene in its origin, progress, and results.

ON A SIMPLE METHOD OF ASCERTAINING, WITHOUT THE USE OF THE CATHETER, WHETHER THE EUSTACHIAN TUBES ARE PERVIOUS; WITH SOME OBSERVATIONS ON THE TREATMENT OF CASES OF OBSTRUCTION IN THESE TUBES.

By JOSEPH TOYNBEE, F.R.S.

The author pointed out the objections to the two ordinary modes of exploring the Eustachian tubes—viz., that the use of the catheter is liable to produce pain and discomfort; that, without experience, it is not easy to ascertain whether it be really in the tube; that the plan of attempting to distend the tympanum by a forcible expiration, while the mouth and nostrils are kept closed, is not always successful, from the fact that the young and nervous cannot be taught to perform the act, and that sometimes, when it is properly done, the guttural orifices of the tubes seem to be pressed together so as to preclude the air from entering. In a paper recently read before the Royal Society, the author endeavoured to show that the guttural orifice of each Eustachian tube is generally closed, and that the air in the tympanum is not continuous with that in the cavity of the fauces, except during the momentary act of deglutition. In proof of this, the following experiment was cited:—If the mouth be shut, and the nostrils be held closed by the finger and thumb, and then the act of swallowing be performed, a sensation of fulness or pressure is experienced in each ear; and this sensation does not disappear upon the removal of the pressure from the nose, but it vanishes at once when the act of swallowing is again performed, while the mouth and nostrils are open. During the first act of swallowing, a small quantity of air was forced into the tympanitic cavities through the Eustachian tubes, and it therein remained until the second act of swallowing again opened the tubes and permitted the air to escape. The muscles whereby the Eustachian tubes are opened are the tensor and levator palati, which it is well known take origins from the cartilaginous walls of the tubes. As, during the act of swallowing with closed mouth and nostrils, air is forced through the Eustachian tubes into the tympanic cavities, it is evident that the permeability of these tubes can be ascertained by making the patient swallow some saliva while the mouth and nose are shut. Nor need the surgeon depend upon the statement of the patient respecting the sensation of distension felt in the ears; for, by listening with the *otoscope*, should the Eustachian tubes be pervious, the air will be distinctly heard to enter the tympanic cavities, and produce a gentle crackling sound. The author next proceeded to consider the treatment of cases of obstruction of the Eustachian tubes, especially in reference to the use of the catheter. It having been ascertained that these tubes are obstructed, is it desirable to attempt to open them by means of the catheter? Believing that obstruction in the Eustachian tubes generally depends upon a thickened state of the mucous membrane covering the guttural orifice, and that this state is always associated with a thickened condition of the faucial mucous membrane and of the mucous membrane of the tympanum, the author suggests, especially to those inexperienced in the use of the catheter, not to attempt to pass this instrument—firstly, because, in such cases, the mucous membrane of the Eustachian tube is often so tumefied that no ordinary degree of pressure will force the air into the tympanum; and, secondly, because, should the surgeon succeed in transmitting a few air-bubbles, the relief obtained is only partial, and endures for a very brief period, since the mucous membrane remains as thick as before, and the ill effects of the obstruction soon recur, from the air in the tympanum becoming of a different density from that without. The membrana tympani becomes more or less fixed. The treatment recommended is such as shall tend to reduce the thickened mucous membrane of the guttural orifices of the Eustachian tubes to a healthy state, so that their muscles may be able to open them. For this purpose, besides the use of general remedies, the solid nitrate of silver, or a strong solution of hydrochloric acid, may be applied to the mucous membrane of the fauces and to the apertures of the tubes, and gentle counter-irritation is to be kept up over the region of the fauces. By these measures, as a general rule, the mucous membrane can be reduced to its natural state, and the tubes become again opened by their muscles. Should this not take place, the Eustachian catheter may now and then be introduced, and air be gently blown through it. A modification in the shape of the Eustachian catheter is suggested—viz., that it should be oval instead of round, the advantages derived being, that it not only can be passed through the nose with less discomfort to the patient, but its presence in the Eustachian tube is much less disagreeable from the absence of the convex surfaces which, in the rounded catheter, press against the nearly flat surfaces of the tube. In conclusion, the author expresses his concurrence in the opinion of Harvey and Kramer, that enlarged tonsils are never the cause of obstruction in the Eustachian tubes, and that any benefit that may have followed their extirpation has arisen from the loss of blood consequent upon the operation.

Mr. Pilcher agreed in the main with Mr. Toynbee's views. He differed, however, in one point with him, and that was in reference to the view he took of the Eustachian tube being closed under the action stated in the paper. He would beg to ask the author, how he explained the fact of patients hearing better when that tube was opened artificially, either by means of a probe or catheter?

Mr. Toynbee replied, that he had explained the fact alluded to by Mr. Pilcher in a paper which was still under the investigation of the Committee of the Royal Society; and, until they had decided upon it, he was desirous not to enter further into the matter.

Mr. Harvey observed, that he had examined, some years back, the subject referred to by the author of the paper, relative to the pathological condition of the Eustachian tube and tympanum in deafness, and had arrived at much the same conclusions; he had some doubts, however, with respect to the physiological question stated by Mr. Toynbee, as regards the Eustachian tube in health. His opinion was, that it was always open, independent of the act of deglutition. So far as the use of the catheter was concerned in this state of the disease, he (Mr. Harvey) thought it had been far too much overrated; and the simple contrivance of the auriscope, such as suggested to the Society, and which he had himself been in the habit of using for some time, would, he thought, obviate the necessity for such frequent practice, always uncertain, and, in hands unaccustomed to it, not without danger.

The Society adjourned at the usual hour.

ROYAL COLLEGE OF PHYSICIANS.

DRAFT OF CHARTER.

[Clauses 5 and 6 are drawn under the supposition that the Legislature will, in future, and without interfering with existing legal rights, or the privileges of the Universities of Oxford and Cambridge, render it imperative upon all Physicians practising in England and Wales, to be enrolled in the College of Physicians of England.]

I. That the said Corporation shall henceforth be styled, " The Royal College of Physicians of England."

II. That the said Corporation shall consist of Fellows and members, including a President and Council, four Vice-Presidents, four Censors, a Treasurer, and a Registrar.

III. That all the present licentiates of the said Corporation shall be members of the said Corporation.

IV. That each of the present extra-licentiates of the said Corporation may be admitted a member of the said Corporation on the production to the said Censors of the said Corporation of testimonials of character which shall be satisfactory to the said Censors, and on his assuring the said Censors that he is not engaged in the practice of pharmacy, and on his paying to the said Corporation a fee of fifteen pounds fifteen shillings exclusive of the stamp duty.

V. That every person practising as a physician in England or Wales, and who shall have taken the degree of Doctor in Medicine at any university in the United Kingdom of Great Britain and Ireland, after regular examination at least three calendar months previously to the date of these our letters patent, and also every person who shall have received a licence to practise physic from either of the Universities of Oxford or Cambridge, and also every person practising as a physician in England or Wales who shall have taken the degree of Doctor in Medicine at any foreign university at least three months previously to the date of these our letters patent, after regular examination and after having resided during a period of not less than two years in an university, and also every person practising as a physician in England or Wales who shall have been for a period of not less than three months previously to the date of these our letters patent a Fellow of the Royal College of Physicians of Edinburgh or a Fellow or Licentiate of the Royal College of Physicians of Dublin, and who shall have been admitted as a Fellow of such Royal College of Edinburgh or Dublin or Licentiate of the Royal College of Physicians of Dublin, as the case may be, after regular examination, provided such person shall have attained the age of twenty-six years, and shall not be engaged in the practice of pharmacy, shall at any time within twelve calendar months from the acceptance of these our letters patent by the said Corporation in the manner mentioned in the Act of Parliament hereinbefore stated to have been passed in the present year of our reign, be admitted a member of the said Corporation, without any examination, on the production to the Censors of the said Corporation of his diploma and of such testimonials of character and professional qualifications as shall be satisfactory to such Censors, and on his proving himself to be of the said age, and on his assuring such Censors that he is not engaged in pharmacy, and on his paying to the said Corporation a fee of fifteen pounds fifteen shillings exclusive of the stamp duty.

VI. That any person who after regular examination shall have taken a degree in Medicine at any University in the United Kingdom of Great Britain and Ireland, or at any foreign University to be from time to time recognised by the said Corporation, and who shall have attained the age of twenty-six years, and shall not be engaged in the practice of pharmacy, and shall have gone through such course of studies, and who shall have passed such examination before the Censors of the said Corporation touching his knowledge of medical and general science and literature, and complied with such other regulations as are or shall be required by the by-laws of the said Corporation, shall be entitled to become a member of the said Corporation without being subject to any other election.

VII. That the present Fellows of the said Corporation shall continue to be Fellows of the said Corporation.

VIII. That every member who shall be admitted a member of the said Corporation as hereinbefore mentioned, who shall be desirous of becoming a Fellow of the said Corporation, shall be capable of being elected a Fellow thereof, provided he shall, in addition to the examination hereinbefore mentioned, at any time after that examination, have passed such further examination before the Censors of the said College, touching his knowledge of medical and general science and literature, and complied with such other regulations, as are or shall be required by the bye-laws of the said Corporation: provided, nevertheless, that such member shall not be capable of being actually elected a Fellow as aforesaid until he shall have been a member of the said Corporation for a period of not less than four years.

IX. That during the period of twelve months, to be computed from the date of these our letters patent, the Council of the said college shall have the power to nominate such members thereof, as in the opinion of the Council shall have distinguished themselves in the pursuit of science and literature, provided the members so to be nominated shall have attained the age of thirty years, without any limitation as to the period during which such members shall have previously been members of the said Corporation, to be proposed to the Fellows for election as Fellows at meetings of the Fellows, to be holden, with due notice, for this purpose at any time before the expiration of the said twelve months.

X. That after the expiration of the period of twelve months, to be computed as aforesaid, the Council of the said college shall have the power to nominate yearly such members thereof as in the opinion of the Council shall have distinguished themselves in the pursuit of science and literature, to be proposed to the Fellows for election as Fellows, provided the members so to be nominated shall have been members of the said Corporation for a period of not less than four years.

XI. That the Fellows of the said Corporation shall be elected by ballot at a meeting of the Fellows, and that, after the expiration of the period of twelve months, to be computed as aforesaid, such meeting shall be held yearly on the 25th day of June, unless the same shall fall on a Sunday, and then on the 26th day of June; and that the first of such meetings shall be held on the 25th day of June, (or 26th day of June,) one thousand eight hundred and

XII. That if it shall at any time hereafter appear, that any present or future Fellow or member of the said Corporation shall have obtained admission to the said Corporation by any fraud, false statement, or imposition, or that he shall have violated any bye-law, rule, or regulation of the said Corporation, then and in every such case, and after such previous notice to, and such hearing of, such Fellow or member, as under the circumstances the President and Censors of the said Corporation shall think proper, it shall be lawful for a majority of the Fellows present at a meeting of the Fellows to declare such Fellow or member to be expelled from the said Corporation, and thereupon every such Fellow or member shall cease to be a member, or a member and Fellow of the said Corporation, as the case may be, accordingly; and all the privileges granted to such member, or member and Fellow, as the case may be, shall cease and be extinguished.

XIII. That the present President of the Corporation shall continue to be President of the said Corporation until a new President shall be actually appointed in his place, and that upon the day next after Palm Sunday, in the year one thousand eight hundred and , and on the same day in every subsequent year, a new President of the said Corporation shall be elected at a meeting of the Fellows of the said Corporation; but the retiring President shall always be capable of being re-elected, and every President shall remain in office until the actual election of the new President.

XIV. That at the meeting of the Fellows, held for the election of the new President, the Council of the said Corporation shall, out of the first fifty Fellows in the list of Fellows of the said Corporation, nominate some one of such fifty Fellows, to be proposed to the Fellows of the said Corporation, to be by them elected President; but if the Fellow so nominated shall not be elected President by a majority of the Fellows present at such meeting, another Fellow shall in like manner be nominated by the Council, out of the first fifty Fellows in the list of Fellows to be proposed as aforesaid, and so on until a President shall have been elected. The election of President shall be taken by ballot, and, in case of any difference in the Council concerning their selection of a President, the President nominated by the majority shall be proposed to the Fellows, and, in case of an equality of votes in the Council, the senior Fellow so nominated shall be so proposed.

XV. That in case of the death or resignation of the President for the time being, a new President shall, with all convenient speed, be elected in his place, such election to be made in all respects in the same manner as is provided by the last preceding regulation.

XVI. That any time before, or at the meeting of the Fellows of the said Corporation, after the meeting of the Fellows at which the President of the said Corporation shall have been elected, the President so elected shall appoint four Fellows out of the first fifty on the list of Fellows, which four Fellows shall be called Vice-

Presidents, any one of whom may act as President in the temporary absence of the President, upon such President expressing his desire to such effect to any such Vice-president, in writing, or to the Registrar; and in case of the death of the President the first Vice-president for the time being in the list of Vice-presidents shall act as President until a President shall have been appointed, and the present President of the said Corporation shall, at the meeting of the Fellows of the said Corporation next after the granting of these our letters patent, appoint four Vice-presidents for the purposes aforesaid.

XVII. That the Vice-presidents shall cease to be Vice-presidents when a new President shall have been appointed in the place of the President by whom they were nominated.

XVIII. That there shall be sixteen Fellows on the Council of the said Corporation.

XIX. That the present Council of the said Corporation shall continue to be the Council of the said Corporation until a new Council shall have been actually elected in their place, and that on the twenty-second day of December next four Fellows shall be elected to make up the number of the Council to sixteen, and that on the twenty-second day of December, one thousand eight hundred and , and on the same day in every year (except when the same shall fall on a Sunday, and then on the twenty-third day of December) four of the Council shall go out of office, and four Fellows shall be elected of the Council; but the Fellows going out of office shall not be re-eligible until they have been one year out of office, and the Fellows to be elected as aforesaid shall remain in office until others shall have been actually elected in their place; and that on the same day other Fellows shall be elected to the Council, to fill up vacancies occasioned by death or resignation since the last election.

XX. That the Council shall be elected by the Fellows out of their own body by ballot, either by list or otherwise, as the said Corporation shall from time to time determine by the bye-laws.

XXI. That, in addition to the sixteen Fellows so elected, the President, Censors, and Treasurer of the said Corporation shall *ex officio* be of the Council of the said Corporation.

XXII. That the present Censors of the Corporation shall continue to be the Censors thereof until new Censors shall have been actually elected in their place, and that on the day after Palm Sunday, in the year one thousand eight hundred and , and on the same day in every subsequent year, four new Censors shall be elected, and Censors going out of office shall be re-eligible, and the Censors to be elected as aforesaid shall remain in office until other Censors shall actually have been elected in their place.

XXIII. That on the day for electing Censors the Council shall nominate four of the Fellows of the said Corporation to be proposed to the Fellows to be by them elected Censors, but if any Fellow or Fellows so nominated shall not be elected a Censor or Censors by a majority of the Fellows present at the meeting, another Fellow or Fellows shall be nominated at such meeting by the Council to be proposed to the Fellows, and so on until four Censors shall have been elected. The election of Censors shall be taken by ballot. In case of a difference in the Council concerning the nomination of Censors, the Censors nominated by the majority shall be proposed to the Fellows, and in case of an equality of votes in the Council, the president or chairman of the Council shall have a casting vote.

XXIV. That, in case of the death or resignation of either of the Censors for the time being, a new Censor shall with all convenient speed be elected in his place, such election to be made in the same manner as is provided by the last regulation.

XXV. That the present Treasurer of the Corporation shall continue to be Treasurer of the said Corporation until a new Treasurer shall be actually elected in his place; and that on the day after Palm Sunday, in the year one thousand eight hundred and , and on the same day in every subsequent year, the President shall nominate one of the Fellows to be elected by the Fellows as Treasurer, in the same manner in all respects as is before appointed for the election of Censors by the Fellows; and the Treasurer shall be re-eligible, and every Treasurer shall remain in office until a new Treasurer shall be actually elected in his place.

XXVI. That, in case of the death or resignation of the Treasurer for the time being, a new Treasurer shall with all convenient speed be elected in his place, such election to be made in all respects in the same manner as is provided by the last preceding regulation.

XXVII. That the present Registrar of the said Corporation shall continue to be the Registrar of the said Corporation until a new Registrar shall be actually elected in his place, and that on the day after Palm Sunday, in the year one thousand eight hundred and , and on the same day in every subsequent year, the President shall nominate one of the Fellows to be elected by the Fellows as Registrar, in the same manner in all respects as is before appointed for the election of Censors by the Fellows, and the Registrar shall be re-eligible, and every Registrar shall remain in office until a new Registrar shall be actually elected in his place.

XXVIII. That in case of the death or resignation of the Registrar for the time being, a new Registrar shall with all convenient speed be elected in his place, such election to be made in all respects in the same manner as is provided by the last preceding regulation.

XXIX. That the President, Council, Censors, Treasurer, and Registrar, shall be considered as remaining in office during the whole of the day on which their successors shall be elected.

XXX. That the said Corporation may from time to time by a bye-law change the day hereby appointed for any election to take place; and if from any cause whatsoever any election shall not take place on the day hereby or by any bye-law appointed for that purpose, the same shall take place on some other day appointed for that purpose by the said Corporation.

XXXI. That proxies shall not be allowed at any election.

And we do hereby, for us and our heirs and successors, further grant that the duties, powers, and privileges of, and incident to, the said respective offices, shall, except so far as the same are varied by these presents, and subject to any variations therein which may be made by the said Corporation, continue to be the same as the duties, powers, and privileges of the same offices respectively now are:

And we do hereby, for us and our heirs and successors, further grant that it shall be lawful for the said Corporation to admit as a member of the said Corporation any person who shall have exceeded the age of forty years, on the production to the Censors of the said Corporation of such testimonials of professional education as shall be satisfactory to such Censors, and on passing such examination before the Censors as shall be required by, and shall be satisfactory to, the said Censors; and such person shall, after such his admission as a member of the said Corporation, be entitled to have and use the degree or designation of Doctor of Medicine:

And we do hereby, for us and our heirs and successors, further give and grant unto the said Corporation full and lawful power and authority to hold, possess, and enjoy, for the use and benefit of the said Corporation, all manors, messuages, lands, tenements, rents, services, possessions, or hereditaments whatsoever, (whether the same are or shall be holden of us, our heirs and successors, or of any other person or persons whomsoever,) already given, granted, sold, aliened, assigned, disposed of, devised, or bequeathed unto or to the use of or in trust for the said Corporation, and to have, hold, take, purchase, receive, possess, and enjoy, for the use of the said Corporation, any other manors, messuages, lands, tenements, rents, services, possessions, or hereditaments whatsoever, (whether the same are or shall be held of us, our heirs and successors, or of any other person or persons whomsoever,) so as that such other manors, messuages, lands, tenements, rents, services, possessions, or hereditaments hereinafter to be had, holden, taken, purchased, received, possessed, or enjoyed by the said Corporation, shall not at any one time exceed in value the clear yearly value of ten thousand pounds above all reprises, according to the value thereof when respectively acquired by the Corporation:

And we do hereby, for us and our heirs and successors, further give and grant unto every subject or subjects whatsoever of us, our heirs and successors, whether incorporated or not incorporated, special licence, power, faculty, and authority, to give, grant, sell, alien, assign, dispose of, devise, or bequeath unto the said Corporation, for the use and benefit of the said Corporation, any manors, messuages, lands, tenements, rents, services, possessions, or hereditaments whatsoever, (whether the same are or shall be holden of us, our heirs and successors, or of any other person or persons whatsoever,) so as that the same do not, at any one time, exceed in the whole the clear yearly value of ten thousand pounds above all reprises, according to the value thereof respectively when acquired by the said Corporation:

And we do hereby, for us and our heirs and successors, further grant that all the said provisions in the said Act of Parliament of our present reign shall be, and the same are hereby expressly confirmed in such and the same manner to all intents, constructions, and purposes as the same might have been by being herein repeated; but this present provision shall not be deemed in any way

to weaken, control, or affect the provisions of the same Act of Parliament or any of them :

And we do hereby, for us, our heirs and successors, further grant unto the said Corporation and their successors, that these our letters patent, or the enrolment or exemplification thereof, shall be in and by all things good, firm, valid, sufficient, and effectual in the law, according to the true intent and meaning thereof, notwithstanding the not fully or duly reciting the said letters patent, or the date thereof, or any other omission, imperfection, defect, matter, cause, or thing whatsoever to the contrary thereof in anywise notwithstanding: in witness whereof we have caused these our letters to be made patent. Witness ourself, at our palace at Westminster, this day of in the year of our reign.

ROYAL COLLEGE OF PHYSICIANS.

DEPUTATION TO LORD PALMERSTON.

Yesterday afternoon, a Deputation of the President, Fellows, and Members of the Royal College of Physicians, waited upon Lord Palmerston, at the Home Office, for the purpose of entreating His Lordship to take such immediate steps as might appear necessary to obtain a new Charter for the College.

The Deputation consisted of the following Fellows :—Dr. Paris, *President;* Dr. Monro, Treasurer, Dr. Hawkins, Registrar, *Elects;* Drs. Todd, Crawford, Webster, Owen Rees, *Censors.* Drs. Meryon, Wilson, Spurgin, Alderson, Waterfield, Burrows, Copland, Tweedie, F. Farre, Aldis, Nairne, Daniell, Goolden, A. J. Sutherland, Barlow, Sayer, Rigby, Risdon Bennett, Kingston, Weber, Gull, King Chambers, Henry Monro, Philp, Basham, George Johnson, Peacock, Thompson, Barclay, Sieveking.

Dr. Paris, the President, stated to His Lordship, that the College, the Medical Profession, and the public generally, suffered severely from the present state of affairs; and the evils of which they had to complain would be seriously aggravated, unless measures were at once taken to place the College upon a better footing. Great inconvenience was at present felt with regard to licences, which were granted upon different conditions to persons practising in London, and others practising in the country,—a circumstance which created much unpleasant feeling, and was otherwise productive of bad consequences. The body over which he (Dr. Paris) presided, earnestly entreated His Lordship to do what he could in removing the difficulties of which they complained, and in bringing about some practical improvement.

Dr. Francis Hawkins, the registrar of the College, read to His Lordship a statement which had been prepared for the purpose of presentation. It informed His Lordship that the principal points of difference between the present Charter and a new Charter which the members of the Deputation were desirous of obtaining were as follow :—The present Charter gave to the College the exclusive power of examining and licensing physicians in London. A similar power as to physicians in the country was given by the Act of Henry VIII., confirming the Charter, not to the College, but to a body chosen out of the College. Hence persons licensed for one district, were not so for another, and many dissensions, and much inconvenience, had arisen from this distinction. The new Charter, to which they now asked His Lordship's acquiescence, would extend the licensing power of the College to the whole of England and Wales, and would change the title of the College to that of "The Royal College of Physicians of England;" a similar change having recently been made, by Charter, in the title of the Royal College of Surgeons. The new Charter would provide for the admission into the College, on terms universally considered extremely liberal, of many physicians now practising throughout the country without the licence of the College, and by whom such a measure as this had for many years been ardently desired. The new Charter made certain changes in the internal constitution of the College. In particular, it transferred to the College at large the power of choosing its President, which was given by the old Charter to a select body, called the "Elects," who were self-elected. It gave to the College the power of expelling any future Fellow or member who should be convicted of certain heinous offences; also that of conferring the title of Doctor of Medicine on persons who, being past the age of forty years, were found worthy, from their general attainments and long experience in the practice of medicine, to be licensed as physicians. Under other circumstances, the College was to be empowered to license those only who should have graduated at some University. The nature of the enactments thus proposed, and the reasons for them, had been explained more fully in a memorial which the President of the College had already had the honour of submitting to Lord Palmerston. By referring also to the preamble of the draft Charter sent with that memorial, His Lordship would perceive that the Act of Henry VIII., confirming the present Charter, must be partially repealed, and a new but short Act passed to effect the proposed alterations.

Dr. Burrows begged leave to impress upon His Lordship one fact which had not been adverted to in the statement just read by the Registrar. They had laid certain suggestions before His Lordship, the result of much deliberation, and they could assure him that no opposition to their adoption was to be anticipated from any quarter. It was the general wish of the Profession that the College should be remodelled, and be made so efficient as to enable it to meet the altered requirements of the times.

Dr. Todd reminded the noble Lord that, a short time since, he had been waited upon by a Deputation from the Provincial Medical Association, who represented very accurately the feelings of the Profession in the country with reference to this matter. They stated, what he believed to be strictly correct, that the Bill which that Association so strenuously advocated, was in entire harmony with the Charter of the College.

Dr. Hawkins respectfully submitted, that as the object which the College had in view was one in respect of which no opposition was to be anticipated, it might be as well if the Government would direct their attention to it before they took in hand any other matter relating to medical affairs which might give rise to diversity of opinion.

Dr. Todd remarked, that the object which the College had in view, was simply to procure the enactment of a law authorising them to surrender their present Charter, and to obtain a new one. In that object no other considerations were involved.

Lord Palmerston accepted a copy of the statement read by Dr. Hawkins, and assured the Deputation that the subject to which it referred should receive the earliest and most serious attention of the Government.

The Deputation then retired.

MEDICAL NEWS.

Royal College of Surgeons.—The following gentlemen having undergone the necessary examinations for the diploma, were admitted Members of the College at the meeting of the Court of Examiners, on the 1st inst. :—

Biddle, John Matthew, Army.
Daly, George Hickie, Calcutta.
Dandy, Thomas, Rufford, Lancashire.
Hale, Thomas Frederick, Petworth, Sussex.
Kempster, William Naylor, Whitchurch, Salop.
Lucy, William, Greenwich.
Moss, William Boyd, London.
Playne, Alfred, Minchinhampton, Gloucestershire.
Raymond, Henry Hunter, Cirencester, Gloucestershire.
Tweddle, John, Carlisle.

At the same meeting of the Court, Mr. Henry Eales passed his examination for Naval Surgeon. This gentleman had previously been admitted a member of the College, his diploma bearing date July 24, 1848.

The following gentlemen were admitted members at the meeting of the Court on the 4th instant :—

Byrne, Oscar, Newcastle-under-Lyne,
Clapton, Edward, Stamford, Lincolnshire.
Ewart, Joseph, Holmehead, Cumberland.
Ford, Joseph, Chedder, Somerset.
Hunter, George Yeates, Margate.
Jones, Sydney, Old Kent-road.
Kenoal, Bernard, Budleigh Salterton, Devon.
Lewis, William Thomas, London.
Reed, John Groscort, Exeter.
Rose, Henry Cooper, Edward-street, Langham-place.
Vaux, James, Plymouth.

Sat 9 April 1853 (6)

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, 31st March, 1853:—

Barker, Joseph, Durham.
Batt, Augustine, Bampton, Oxon.
Coleman, Henry William Alexander, London.
Dale, Alfred James.
Evans, David Conway, London.
Job, Samuel, Martin Bawtry, Yorkshire.
Pepler, William Brown, Tinehead, Wilts.
Roberts, Bransby.
Shone, William James, London.
Thomas, Richard Henry, Ibstock, Leicestershire.
Tomlinson, Thomas, Maldon, Essex.
Thomason, Richard, Hobner, Hereford.

London University.—On the 6th instant, a special meeting of the Senate of the London University was held at Somerset-house, for the purpose of electing a Classical Examiner in the place of the late Dr. Jerrard, and an Examiner in Materia Medica and Pharmacy, in the room of the late Dr. Pereira. The meeting was very numerously attended. Among those present were Lord Monteagle, the Bishop of St. David's, G. Cornewall Lewis, Esq., M.P., Henry Warburton, Esq., Dr. Arnott, Dr. Hodgkin, and Dr. Kiernan. Out of a very large number of able competitors, the Senate eventually chose William Smith, Esq., LL.D., the learned Editor of the "Dictionaries of Greek and Roman Antiquities and Biography," as Classical Examiner; and appointed George Owen Rees, Esq., of Guy's Hospital, to the other vacancy. The candidates for the Classical Examinership were twenty-seven in number, including Mr. C. R. Kennedy, Mr. Erskine Rowe, Mr. George Long, the Rev. Dr. Donaldson, the Rev. Professor Browne, of King's College, and Professor Maine.

Dr. Henry Holland.—We have much pleasure in announcing that the honour of a Baronetcy has been conferred on this gentleman, one of Her Majesty's Physicians Extraordinary.

APPOINTMENTS.

Naval.—Assistant-Surgeon Henry Arnot, M.D. (1846), to the Waterloo flag-ship, at Sheerness, vice Nicholas. March 25. Surgeon Edward Nolloth, M.D. (1845), to the Hercules emigrant ship, at Cork, vice Carey.

Military.—Royal Regiment of Horse Guards: Staff-Surgeon of the Second Class Cosmo Gordon Logie, M.D., to be Surgeon, vice George Gulliver, who retires upon half-pay. Coldstream Guards: Assistant-Surgeon John Wyatt, from the 5th Dragoon Guards, to be Assistant-Surgeon, vice Skelton, promoted. 30th Foot: Assistant-Surgeon William Johnstone Fyffe, M.B., from the Staff, to be Assistant-Surgeon, vice John Macnamara, M.D., who retires upon half-pay. 79th Foot: James Nicholas Bell, gent., to be Assistant-Surgeon, vice Scot, promoted in the 48th Foot. Hospital Staff: Robert Ferguson, gentleman, to be Assistant-Surgeon to the Forces, vice Lapsley, appointed to the 74th Foot.

DEATHS.

Chambers.—April 6, at Wimpole-street, in his 63rd year, Dr. Richard Chambers. This distinguished physician was found dead in his bed at half-past eight o'clock on Wednesday morning. Feeling slightly indisposed on Tuesday night, he had directed that his patients should not be introduced to him until half-past twelve on the following morning. Dr. Chambers was an M.D. Edin. 1838; L.R.C.P. 1849; Senior Physician to the Royal Free Hospital; Physician to the Cancer Hospital, to the Blenheim-street Dispensary, and to the Dispensary for Consumption and Diseases of the Chest.

Fernandez.—Recently, at Madrid, Dr. Fernandez, very suddenly.

Gale.—March 27, after four days' illness, Mr. Gabriel Joseph Gale, surgeon, formerly of Newington, Surrey, aged 52.

Marter.—April 2, at Worthing, William Marter, Esq., aged 65; Surgeon to the Worthing Dispensary.

Mathison.—Dec. 26, at Vaniembady, India, Surgeon J. Mathison, of the Medical Establishment.

Smith.—February 8, at St. Thomas's Mount, Madras, Surgeon T. T. Smith, of the 2nd Battalion Artillery.

Thompson.—March 29, at 28, Osnaburg-street, Regent's-park, William Henry Thompson, M.D., aged 92.

Board of Health.—In the House of Lords, on Tuesday, the General Board of Health Bill passed through Committee.

St. Thomas's Hospital.—The Chair of Chemistry in this Institution, is vacant, by the resignation of the Rev. Dr. Leeson.

The Income-tax.—On Tuesday, in the House of Commons, Mr. C. Berkeley presented petitions from medical men in Cheltenham, Wotton-under-Edge, and Dursley, against the Income-tax in its present form.

Society for the Relief of Widows and Orphans of Medical Men in London and its Vicinity.—The anniversary festival of this excellent Society was held at the Freemasons' Tavern on Saturday last. The chair was filled by Sir Charles Mansfield Clarke, supported by the President of the Royal College of Surgeons, Sir James Eyre, Dr. Conolly, Dr. Sutherland, Mr. Stone, Mr. Propert, Mr. Clifton, and other friends of the Society. Sir Charles Clarke, after proposing the usual toasts, gave "Prosperity to the Society," and took occasion to observe, that its funds were in a very satisfactory condition, the sum in reserve amounting to 50,000*l*. A number of donations were announced by Dr. Merriman, the Treasurer. Sir Charles Clarke, during the course of the evening, indicated his intention to relinquish the Presidency of the Society, owing to the pressure of advancing years; but in consequence of the unanimously expressed wish of the company present, Sir Charles consented to retain office on the understanding that he might be excused from such constant attention to the affairs of the Society as he had previously given. We are happy to state, that Sir Charles was looking exceedingly well; and we are bound to re-echo the sentiments expressed by the meeting, that his secession could be regarded only as a most severe and almost irreparable calamity.

The Agamemnon at Portsmouth.—We alluded last week to this plague-ship, stating that, on March 30, 300 of the crew were "down with the fever." In consequence of some strictures in the *Times*, Mr. Johnstone, the Captain-Superintendent of Haslar Hospital, in a letter to that Journal, says, that the disease is not typhus, or typhoid fever, but scarlatina in a mild form; and, out of 268 patients received from the Agamemnon into that hospital up to April 2, even one death has not occurred; on the contrary, a large number of the patients are daily amusing themselves out of doors, and nearly 100 will be able to rejoin the ship on Monday next, having been free from all fever sufficiently long to warrant such an arrangement. With respect to the medical officers at Haslar, Mr. Johnstone says:—"From Sir John Richardson down to the junior assistant-surgeon, I can declare it is impossible for duty to be more zealously performed by any class of officers in the service of the Crown." April 5.—On this date, fifty more of the Agamemnon's crew were sent to the hospital from the Camperdown hulk.

Yellow Fever.—The yellow fever had ceased to prevail on shore at British Guiana, but still lingered in isolated cases among the shipping. In Tobago the fever was disappearing. In St. Vincent's the fever had abated. There had been 31 cases admitted into the garrison hospital, out of which 14 were discharged, the deaths numbering 14. The Dauntless was preparing to leave Barbadoes for England, the fever having nearly disappeared in her. The squadron is now quite healthy.

Dublin Hospital Grants.—The Lord Mayor and Corporation of Dublin have caused a new Petition to be framed, to be presented to Parliament, praying, that the grants to the Dublin hospitals may be restored to their original amounts, and placed upon a permanent footing. The presentation of the Petition has been entrusted to Edward Grogan, Esq., M.P. Copies have likewise been forwarded to all the Irish Members. The following extract, taken from the body of the Petition, shows the manner in which this most ill-advised measure first originated. The Petitioners urge, "that the only pretext which has ever been suggested for the withdrawal of these grants is a recommendation in the report of a Committee of your honourable House, which sat in the year 1848; and that the only evidence to support the recommendation of the Committee was given by one George Mathews, whose real name has since been discovered to be Chisholm, and whose entire career, as since developed to the public, disentitles his evidence to attention." A similar Petition will be presented, praying the continued maintenance of the grant to the Royal Hospital, Kilmainham.

Medical Registration, Ireland.—We understand that a Bill for the more effectual carrying out of a proper system of medical registration in Ireland will be shortly introduced by the Right Honourable the Chief Secretary for Ireland.

Accoucheur to the Empress of France.—M. Paul Dubois, the senior member of the Faculty of Medicine, has been

appointed accoucheur to the Empress. His father, M. Antoine Dubois, attended Marie Louise on the occasion of the birth of the King of Rome.

Prussia.—An hygienic association, consisting of 10,000 members, has been dissolved at Berlin.

Bombay Medical Establishment.—The following alterations and promotions are made:—Adjustment of rank: Surgeon W. P. Gillanders to take rank, vice Ryan, deceased; date of rank, 2nd April, 1851. Surgeon D. Costello, M.D., to take rank, vice Davies, deceased; date of rank, 7th October, 1851. Surgeon H. D. Glasse, to take rank, vice Sinclair, retired; date of rank, 3rd January, 1852. Surgeon R. H. Davidson, M.D., to take rank, vice Doig, retired; date of rank, 17th April, 1852. Surgeon J. Craig, to take rank, vice Kirk, deceased; date of rank, 31st May, 1852. Surgeon W. F. Babington to take rank, vice Montifiore, deceased; date of rank, 29th September, 1852. Surgeon C. R. O. Bloxham, to take rank, vice Gibb, retired; date of rank, 2nd October, 1852. Promotion: Senior Assistant-Surgeon R. Hoskin to be Surgeon, vice Gray, deceased; date of rank, 11th October, 1852. The rank of the undermentioned Assistant-Surgeons having been received from the Honourable the Court of Directors, commissions are assigned to them from the dates specified opposite to their respective names:—

Medical Establishment.	Date of Rank.
Assistant-Surgeon T. Ed. Pearce Martin ..	9th Oct., 1852.
,, J. P. Stratton, M.D. ..	20th ,,
,, Joseph Kaye	20th ,,
,, George Naylor	20th ,,
,, John Lumsdaine ..	10th Nov., 1852.
,, Wm. James Moore ..	20th ,,
,, Wm. A. Shepherd ..	9th ,,

Bombay.—Assistant-Surgeon Henry Stanborough, found guilty, by a Court Martial, of having borrowed 2000 rupees of a native medical subordinate, has been sentenced to be struck off the strength of the army. The *Overland Bombay Times* (just come to hand), however, observes, in reference to the case:—"Without the evidence before us, it is impossible to form a decided opinion as to the merits of the case; but it appears to us that he has fallen a victim to a discrepancy in his own statements, which gave an advantage to his prosecutors that they could not have gained from any acts brought home to him. The Court Martial seem to have been very dubious as to the propriety of his dismissal, even on the grounds of his conviction; and the remarks of the Commander-in-Chief, who has reluctantly confirmed their sentence, notwithstanding their merciful recommendation, lead to a belief that he also shares their scruples on the subject. Altogether, the affair is a strange one, and the public should know more of it for Mr. Stanborough's sake. Whatever his faults may be, he seems to have been hunted down with extraordinary perseverance."

Colour-Blindness.—Dr. Wilson, of Edinburgh, in a paper in the *Athenæum*, refers to this subject as having an important bearing on the system of railway signalling by colours, especially by red and green danger signals. This affection ("Daltonism," *Chromato pseudopsis, Achromatopsia*, etc.) Dr. Wilson considers in three important practical relations: 1. That the affection is much more prevalent than is generally imagined. 2. That red and green, the colours used for danger-signals on our railways, are exactly those which are most frequently confounded with each other by the subjects of colour-blindness. 3. That colour-blindness implies not merely a confusion in distinguishing between two or more colours, but, at least in many cases, an imperfect appreciation or feeble hold of colour altogether as a quality of bodies. Prevost says that colour-blindness occurs in one male among twenty. Seebeck (in Poggendorff, Annalen, xliii. 177) found five cases among forty youths, in Berlin. Professor Kelland, of the University of Edinburgh, has this session found three examples among 150 students. In four of the cases which had come under Dr. Wilson's notice, none of them could be trusted to distinguish a red signal from a green one; and there was not only false vision of colours, but, in many instances, total colour-blindness—so that the subjects of it doubted as to all colours, and would not swear in a court of justice as to any colour. These facts, in connexion with the continually augmenting number of railway accidents occurring, must show the imperative necessity of strict examination being instituted as to the perfect vision of all railway servants.

Earthquakes.—Last Friday, at 11 p.m., a strong shock was felt at Havre, and on the same day, and same hour, at Southampton, Jersey, and Guernsey.

Extraordinary Commission of Lunacy.—A commission *de lunatico inquirendo*, was instituted, April 2, at Egham, before Mr. Commissioner Winslow and a special jury, upon the state of mind of a gentleman confined as an insane person upon medical certificates in Great Forster-house Lunatic Asylum, near Staines, A number of witnesses, including Drs. Southey and Williams, expressed a strong opinion of the party's lunacy and incompetency to manage himself and his affairs; the alleged lunatic was brought into the room, and introduced to the Commissioner and jury. He occupied a chair near the learned Commissioner, and by him was subjected to a close examination. To every question he gave a rational answer, and during the examination the gentleman gave no evidence of the presence of insanity or weakness of mind. After the alleged lunatic had retired from the room, Dr. Southey, who was present during the examination referred to, was again put into the witness-box. He said that he was indeed astonished at the sudden change that had taken place in the patient's state of mind; that he had seen him only ten days previously, when he found him insane; that he now appeared sane and rational. In reply to a question, Dr. Southey said, "I see no symptom of insanity now; the gentleman appears to be of sane mind, and to have a lucid interval." The following medical witnesses gave evidence in favour of the alleged lunatic:—Mr. Reeve, Dr. Forbes Winslow, and Dr. Webster. Dr. Winslow maintained that he had subjected the party in question to a close and rigid examination, and could detect no aberration of any kind. The gentleman admitted that he had laboured under delusions, but that they had been removed from his mind. In course of cross-examination, Dr. Winslow gave it as his opinion that he thought the attacks to which this gentleman had been subject were allied to the character of *delirium tremens*, and were consequent upon irregular and intemperate living, and that the present condition of his mind must be considered as a recovery. Mr. Shee (counsel) asked the witness whether, if the gentleman in question was liable to a recurrence of these attacks, although he might now be sane and his mind free from delusions, he could be considered of sound mind? Dr. Winslow said certainly. The mind must either be sound or unsound; the fact of there being a liability to a relapse was no evidence of the existence of unsoundness of mind or incompetency to manage property. The present state of the gentleman's mind might be temporary; but nevertheless it was a positive restoration to mental soundness. Dr. Webster concurred in the views of Dr. Winslow. A verdict of soundness of mind was recorded.

The Mortality of Philadelphia, U.S., for the Year 1852.—

	Male.	Female.	Total.
1. Endemic and Contagious Diseases—Zymotic or epidemic	1398	1387	2785
2. Uncertain or General Seat—Sporadic diseases	698	575	1273
3. The nervous system	957	712	1669
4. Organs of respiration	1147	1025	2172
5. Organs of circulation	114	105	219
6. Digestive organs	313	314	627
7. Urinary organs	28	4	32
8. Generative organs	8	104	112
9. Locomotive organs	26	20	46
10. Integumentary system	9	9	18
11. Old age	57	135	192
12. External causes	240	82	322
Still-born	293	223	516
Unknown	149	126	275
Total	5437	4821	10258

(Population 409,000.)

In accordance with these tables, the aggregate of deaths from all causes for the year was 10,258, an excess of 1387, or 13 per cent. over those for 1851. This aggregate furnishes one death to every $39\frac{8}{10}$ of the population. The mean number of deaths per day throughout the year was 28. Of the whole number of deaths, 5049, or 49 per cent., were among children under five years of age. Of this great excess of mortality in infancy, 2800, or $27\frac{1}{2}$ per cent., occurred before the termination of the first year of life. In this calculation are included the "still-born," which amounted to 516. Of the deaths from all causes, exclusive of still-born, 590, or 6 per cent., were beyond 70 years of age. Of these, 188 were over 80, 38 were over 90, and 7 were between 100 and 110 years of age.

MORTALITY NOTABILIA.—Last week the deaths from all causes registered in London amounted to 1748. An increase so formidable on the already high mortality of previous weeks arises in part from the same causes that have lately prevailed with unusual force, and is also due, to some extent, to the influx into the register-books of cases on which coroners had held inquests, and which have been permitted to accumulate during the quarter. In the ten corresponding weeks of the years 1843-52 the average number of deaths was 1027, which, with a correction for increase of population, gives a mortality for last week of 1130; or the corrected average for the previous week (the last of the quarter) may be taken, which was 1282. Hence, it appears, that the deaths registered last week exceed the estimated amount by more than 450, a result, the greater part of which must be referred to causes, of meteorological or other character, affecting the health of the population. Last week the deaths caused by bronchitis rose to 231, those in the previous week having been 175; pneumonia increased from 88 to 122; and diseases of the respiratory organs in the aggregate rose from 322 to 420. Phthisis (in the tubercular class) numbered in the two weeks respectively 153 and 179. Zymotic diseases rose from 233 to 273, the increase being in hooping-cough and typhus, the latter of which was fatal last week in 77 cases. At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·733 in.; on Monday the mean daily reading was above 30 in. The mean temperature of the week was 43·4°, which is near the average of the same week in 38 years. The mean daily temperature was below the average on the first three days, and above it during the rest of the week. The mean dew-point temperature was 32·8°. The wind, which had been in the north in the early part of the week, blew from the south-west in the last four days.

DEATHS *in the Metropolis for the week ending Saturday, April* 2, 1853.

CAUSES OF DEATH.	APRIL 2.				Sum of Ten Weeks.
	0	15	60	All Ages.	
ALL CAUSES	719	595	419	1748	10269
SPECIFIED CAUSES	718	593	417	1735	10185
1. Zymotic (or Epidemic, Endemic, and Contagious) Diseases ...	196	54	23	273	1792
SPORADIC DISEASES:					
2. Dropsy, Cancer, and other Diseases of uncertain or variable seat ...	8	38	41	82	485
3. Tubercular Diseases	70	155	10	235	1847
4. Diseases of the Brain, Spinal Marrow, Nerves, and Senses ...	78	48	49	175	1303
5. Diseases of the Heart and Blood-vessels	5	35	28	68	387
6. Diseases of the Lungs and of the other Organs of Respiration ...	182	102	136	420	1878
7. Diseases of the Stomach, Liver, and other Organs of Digestion...	30	32	13	75	587
8. Diseases of the Kidneys, etc. ...	1	10	6	17	114
9. Childbirth, Diseases of the Uterus	...	8	...	8	91
10. Rheumatism, Diseases of the Bones, Joints, etc.	1	8	2	11	87
11. Diseases of the Skin, Cellular Tissue, etc.	2	2	1	5	16
12. Malformations	1	...	...	1	26
13. Premature Birth and Debility ...	28	4	...	32	248
14. Atrophy	36	2	7	45	204
15. Age	...	...	69	69	531
16. Sudden	21	17	16	56	184
17. Violence, Privation, Cold, and Intemperance	64	78	16	163	405
CAUSES NOT SPECIFIED	1	2	2	13	84

BOOKS RECEIVED.

Nunn on the Breast.
Chapman on Ulcers.

TO CORRESPONDENTS.

From an accidental circumstance we are compelled to delay Dr. Boon Hayes's Sixth Lecture until next week.

Mr. Solly's lecture will appear shortly.

Dr. Babington's letter arrived too late for insertion this week, but it will receive due attention.

Dr. Henry Lonsdale is thanked for his communication.

Thomas B. Keetley, Esq., Great Grimsby, must serve the office of auditor, as he has been elected.

Dr. Maddock's communication is declined with thanks. His paper is left for him at our office.

"*Physic and Surgery.*"—We cannot undertake to publish letters which have been refused insertion in other journals. We have no fault to find with the sentiments expressed in the letter of "Physic and Surgery;" and, should the author feel disposed to write anew on the subject, we will give his communication consideration.

Dr. Coppinger's paper will appear in our columns in due course.

Dr. James Jago's paper on the Membrana Tympani is much too long for our columns. If, however, the author will condense his matter, and reduce his paper by at least one-half, we shall be happy to give it insertion as early as possible.

L.A.C., &c. will find an account of the eight men who were shut up in a coal mine for 136 hours (nearly six days) fully detailed by the physician who attended the sufferers, Dr. Joseph Soviche, in Vol. XVIII. of the "Medical Gazette," published in 1836. The following brief account of the accident is not uninteresting:—On the 2nd February, 1836, the colliery of Monzil was inundated while the miners were at work; some of the men managed to reach the mouth of the pit and were saved; the remainder perished, with the exception of eight, who managed to take refuge in a gallery which the waters had not entered. The length of this gallery was about 100 metres long, 2½ metres broad, and 1½ high, so that the total volume of space in which the men were enclosed was 375 cubic metres. They did not endure much suffering from hunger, nor from thirst, as they had water at their command, and on the first day had some bread and cheese and wine. The extreme cold, wet, and want of light, caused them most suffering at first. When liberated, they were on the point of death by asphyxia; all the respirable air in the gallery was nearly exhausted, and for some hours before their release, they were unable to speak, while their breathing was painful and stertorous. All recovered.

A Young Practitioner.—There are doubtless some physicians and surgeons who open their houses in the morning, and give gratuitous advice indiscriminately to all who apply for it. Our own opinion, however, is, that the patients for the most part receive the advice at its proper value, and at the value, indeed, which it is found to fetch in the market. Such practitioners talk much of charity and so forth; but ask the chemist who prepares the gratuitous prescriptions, what the kind-hearted individual means, and he, if honest, will open your eyes to proceedings which will make you blush for your professional brethren. When men write their prescriptions in hieroglyphics, intelligible only to one druggist, or when they always insist upon the drugs they order being procured at one particular shop, you may be certain that they receive their *quid pro quo* in one shape or another. Avoid all such disreputable proceedings. Refuse a fee by all means when you have good reasons for doing so; but remember, that *indiscriminate* gratuitous advice is as injurious to our profession, and as unjust to young practitioners well contented with small fees, as indiscriminate street charity is hurtful to the public, and is a premium upon idleness and crime.

M. B.—The explanation is easy. Celsus has said very truly of medicine, *nusquam non est*—it is to be found everywhere.

Students—The plants forming the family *papaveraceæ* are not numerous. They are chiefly European, and herbaceous, abounding in a milky juice. The only important species are—the papaver rhœas and papaver somniferum, for a detailed account of which refer to Royle's "Manual of Materia Medica," or any botanical work.

Obstetricus.—The dwarf has been safely delivered without the Cæsarian section, but we are not aware of the particulars of her labour. Such a proceeding as that which was contemplated ought, in our opinion, never to have been thought of.

A Subscriber and Occasional Contributor must favour us with his name, in confidence, if he wishes his communication to appear in our columns.

C. W. B., Brighton.—The hospital authorities will inform you when a vacancy occurs.

COMMUNICATIONS have been received from—

Dr. BUDD, King's College; Dr. WEST; SAMUEL SOLLY, Esq., St. Thomas's Hospital; J. B. BROWN, Esq., St. Mary's Hospital; SAMUEL THOMSON, Radcliffe, Lancashire; BERNARD RICE, Esq.; Dr. EDWARDS CRISP, Parliament-street; Dr. TANNER, Charlotte-street, Bedford-square R. MASON, Esq., Hornsey-row, Islington; PERRY DICKEN, Esq., Ashby-de-la-Zouch, Leicestershire; PHYSIC AND SURGERY; JAMES JAGO, Esq., M.B., Physician to the Royal Cornwall Infirmary; JAMES YEARSLEY, Esq., Savile-row; ALEXANDER WILSON, Esq., Manchester; J. Y. COPPINGER, M.D., Queenstown; Dr. SEATON; Dr. LONSDALE, Carlisle; Dr. B. G. BABINGTON, 31, George-street, Hanover-square; A. W., Nottingham; R. OSBORNE, Esq., Admiralty Office, Somerset-house.

ORIGINAL LECTURES.

LECTURES
ON THE
ORGANIC DISEASES AND FUNCTIONAL DISORDERS OF THE STOMACH.

By GEORGE BUDD, M.D., F.R.S.
Professor of Medicine in King's College, London.

Hitherto I have spoken only of the simplest kind of congestion—the mere turgescence of the vessels of the stomach, which results from a mechanical impediment to the passage of the blood through the liver or the chest. But a plethora, or fulness of the vessels, may result from very different conditions. The purpose of the blood is to supply materials for the nutrition of the various tissues of the body, and for those secretions by which the purity of the blood itself is maintained; and the quantity of blood which flows to any part, and the freedom with which the stream traverses its capillary vessels, depend very much on the affinity or mutual action between the elements of the part and the blood. The natural affinity between the blood and the tissues, (varying in degree according to the state of action or repose,) which is requisite for healthy nutrition, may be modified, and the circulation, in consequence, deranged, by changes originating either in the tissues or in the blood. Thus, when inflammation of the mucous membrane of the stomach is set up by undigested or irritating food, or when any other injury is done to it which nature has to repair, more blood flows to the stomach, and more is retained in its vessels, while the inflammation or the reparative process exists. So, again, if the coats of the stomach be the seat of a cancer, the wonderful powers of growth in the new tissues draw an additional quantity of blood to the stomach, and cause an unnatural fulness of its vessels. After a time, indeed, in consequence of the increase in the volume of the current, the arteries and veins which serve as its channel grow larger.

The congestion of the stomach that results from inflammation, or from the growth of a cancer, or from other structural changes, will be considered when those several conditions come under our notice, and therefore need not detain us now. But, as I have just stated, congestion may originate not only in an unnatural condition of the tissues which the blood nourishes, but also in an unnatural condition of the blood itself. A change in the relative proportion of the constituents of the blood, or the presence of some foreign matter in it, by changing the consistence of the blood, and thus rendering its propulsion more difficult, or by modifying the chemical relation which naturally exists between the blood and the tissues, may cause the blood to pass less freely than natural through the capillary vessels, and so to accumulate in them.

In every secreting organ, the circulation is especially modified by those unhealthy states of the blood which especially influence the secretion. The secreting organs are the outlets through which noxious or *effete* matters are removed from the body. Some matters are removed by one secreting organ, some by another. Every kind of matter is removed in greatest quantity by the organ which has the greatest affinity for it. The very act of secretion implies a special affinity between the secreting structure and those elements of the blood which go to form the secretion; and the exercise of this affinity, as a matter of necessity, influences the current of blood. Its first effect is to draw an increased quantity of blood to the part, to cause an increased quantity to pass through it in a given time, and, generally, to render the nutrition of the part more active. If, however, the matter to be eliminated is more than the organ has power to cast off, the blood is unduly detained there, the minute vessels of the organ become gorged, and all those effects ensue which result from the simpler kind of congestion we have before considered.

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The vascular plethora of the stomach, for example, that results from an unnatural condition of the blood, like the congestion that is caused by an impediment to the return of the venous blood, lessens the secretion of the gastric juice, renders the mucous membrane more disposed to be inflamed by the irritation of undigested or unwholesome food; and, if the congestion attain a certain degree, causes an oozing of blood from the open surface of the membrane.

Vomiting of blood, especially when it is in small blackish coagula, which show that the blood escaped by oozing, and that it was coagulated before it had time to collect in a mass, is, perhaps, the most distinct and conclusive evidence of congestion of the coats of the stomach.

There are probably many morbid conditions of the blood that lead to congestion of the stomach, and to consequent exhalation of blood from the open surface of its mucous membrane.

Hæmorrhage from the stomach, arising in this way, now and then occurs in women, from stoppage of their monthly courses. A very striking instance of this is related by Dr. Watson, on the authority of Dr. Latham:—"A young woman became the subject of hæmatemesis, recurring at monthly periods, about the age of fourteen. She had never menstruated. This continued until she married, and, in due time, fell with child. Thereupon the hæmatemesis ceased. She brought forth and suckled her infant. During lactation the hæmorrhage did not recur. It came on again soon after she ceased to nurse the child, no regular menstruation by the uterus having ever happened. This was the woman's own account, and there appeared no reason to question its accuracy."

Hæmorrhage of the stomach, arising from suppressed menstruation, generally occurs, as it did in this instance, at the appointed time, or near the appointed time, of the natural monthly discharge. While it lasts, the power of digestion is suspended, and the stomach is painful and tender. It was rightly remarked by Cullen, that this kind of gastric hæmorrhage hardly ever proves fatal. The blood generally escapes by oozing from the open surface of the mucous membrane, and, when a certain quantity is lost, the system is relieved, as by natural menstruation, and the disposition to hæmorrhage ceases.

Even when this vicarious hæmorrhage takes place from an ulcer in the stomach, as I believe it not infrequently does, the blood does not issue from a vessel of considerable size laid open by the process of ulceration,—the usual source of hæmorrhage in cases of the simple or perforating ulcer,—but oozes from the minute vessels of the raw surface.

Hæmorrhage vicarious of menstruation usually takes place from an ulcerated surface, or from the open surface of those mucous membranes which are most disposed to bleed. It takes place more frequently from the mucous membrane of the stomach than from any other mucous membrane, because the mucous membrane of the stomach is frequently, like the mucous membrane of the uterus at the time of menstruation, the source of an abundant secretion, and, in adaptation to this more active secreting function, is more vascular, and more readily allows an exudation of blood from its surface than the mucous membrane in other parts.

Vomiting of blood, resulting from suppressed menstruation, is distinguished from that which results from other causes, by its occurring at the time, and in place of, the natural menstrual discharge; by the absence of other conditions, such as an impediment to the passage of the blood through the liver or the chest, or great enlargement of the spleen, which are known to lead to congestion of the stomach; and, when the hæmorrhage does not take place from an ulcer, by the circumstance, that the disorder of the stomach is of short continuance,—that the vomiting of blood is not long preceded, or long followed, by pain, vomiting, or other symptoms that denote organic disease of this organ.

The means most effectual in arresting the vomiting of blood that results from suppressed menstruation are: the

abstraction of a small quantity of blood from the arm; the application of a blister to the epigastrium; cold and slightly astringent drinks; unloading the bowels by a purgative injection; and complete abstinence from food. When the hæmorrhage has ceased, the remedies most likely to prevent its recurrence are: some bitter astringent, to brace the coats of the stomach; sulphate of magnesia, or some other saline purgative, in sufficient quantity to promote a free action of the bowels, and thus to prevent the congestion of the stomach which a loaded state of the large intestine occasions; and, in conjunction with these remedies, the employment of all available means which tend to promote the natural monthly courses.

In the various diseases which are attended with an abundant and morbid secretion from the coats of the stomach, whether this secretion results from a poisoned state of the blood, or from a poison in the stomach irritating the surface of the mucous membrane, hæmorrhage from the stomach not unfrequently takes place.

In malignant cholera, for example, it sometimes happens that, after the discharges have continued some time, and while they are still profuse, the matter ejected from the stomach, instead of having its usual appearance, which has caused it to be compared to "whey" or "rice-water," is brown, or blackish, from the presence in the whey-like fluid of brown or black flakes, sufficiently numerous to impart their colour to the whole mass. When the matter is poured on a filter, the colourless liquid transudes, and the brown or black flakes are left on the filter. These brown or black flakes consist of minute coagula of blood which has exuded from the mucous membrane of the stomach, and has been coagulated and blackened before it has had time to collect in a mass. In cases in which this black vomit occurs, the matter discharged from the bowels has often a reddish or plum colour, from the presence of blood which has exuded from the mucous membrane in some part of the small or large intestine, where it is not exposed to the action of an acid, and consequently is not clotted and blackened, as it is in the stomach.

After death from cholera, the vessels of the stomach and intestines are found congested, and in those cases in which hæmorrhage has occurred, some ecchymosed spots may usually be seen on the mucous membrane, marking, no doubt, the chief sources of the effused blood.

It is very important, in the treatment of cholera, to consider the nature of the process of which the stomach is the seat. The abundant flux from the mucous membrane, which results not from mere passive congestion, but from an active process of secretion; the burning heat which is usually felt there; the craving for cold drinks; and the great vascularity of the stomach which may be seen after death,—all speak the same language, and forbid the use of alcoholic drinks, and of acrid and stimulating drugs, which have been often resorted to in cholera, with the view of keeping up the temperature of the body and supporting the strength, but which, unless they have some specific action, must, by irritating the coats of the stomach, tend still further to increase the flux, and thus to hasten the collapse which they are given to prevent.

In yellow fever, again, hæmorrhage from the stomach (which appears to be the cause of the characteristic black vomit) takes place by oozing from the mucous membrane; and the blood, as it exudes, is blackened by the acid secretions with which it is mixed. It seems, that in yellow fever, as in cholera, the hæmorrhage from the stomach is preceded by an abundant secretion from the mucous membrane. Sir William Pym, describing the symptoms of one of the forms of yellow fever, says:—"In many cases, the patient in a few hours begins to be troubled with flatus of the stomach, and distressing hiccough, and is suddenly and unexpectedly seized with faintness, sickness, and painful retchings, followed by vomiting at first of whatever had been taken as food or drink, and very soon after by a brownish fluid, resembling dirty water, mixed with a dark-coloured flaky matter, which floats upon its surface; and, at last, by a matter resembling coffee-grounds. . . . . The quantity of fluid ejected, in most cases, wonderfully exceeds the quantity drunk; indeed, all the fluids in the body seem to be pouring into the cavity of the stomach; for when it has, to all appearance, been emptied several times, and the patient thinks himself relieved from any further painful straining, he is, in the course of a few minutes, without having tasted drink, under the necessity of again having recourse to the basin. The vomiting, in the latter hours of the disease, is attended with a peculiar loud and hollow noise, which is heard at a great distance, and is a most painful and distressing sound (particularly in camp), to those who are aware of the sufferings of the patient."

Every one who has had charge of a cholera hospital, will be struck with the strong resemblance which the gastric disorder in some cases of cholera bears to that which is so graphically described in the preceding passage.

Another cause of congestion of the stomach, often leading to an oozing of blood from its mucous membrane, is arrest of secretion in the liver.

The blood is drawn to the liver, and its passage through the liver is promoted, by the forces which are there at work separating and elaborating the principles of the bile, and effecting those reparative changes in the blood which the agency of the liver causes. When the action of these forces is suspended, the blood does not pass through the liver with its usual freedom, and the stomach and intestines become congested, just as when a palpable mechanical bar is opposed to the free return of the venous blood.

In those terrible cases, in which jaundice, followed by fatal disorder of the brain, results from suppressed secretion of bile, hæmorrhage from the stomach and bowels is a common event.

Again, in cases of jaundice from permanent closure of the common gall-duct, which prove fatal by gradually exhausting the strength, it not unfrequently happens, that after the jaundice has lasted many months, and when the secreting cells of the liver are destroyed, death is hastened by the occurrence of hæmorrhage in the stomach and bowels.

In either class of cases the hæmorrhage occurs without ulceration of the mucous membrane of the stomach or intestines, and is best explained by supposing that it results from congestion of the stomach and intestines, caused by the complete arrest of secretion in the liver.

Hæmorrhage from the stomach now and then occurs also in persons in whom the spleen has for some time been greatly enlarged. Numerous instances of this have been recorded, from the time of Morgagni downwards; but the true relation of the facts has not been made out. A very important circumstance in the history of such cases is, that the vomiting of blood is preceded or attended by ascites, by enlargement of the superficial veins of the belly, and by other symptoms, which show that the passage of the blood through the liver is greatly obstructed; and the question arises, On what does this obstructed circulation depend?

The most natural supposition is, that the obstructed circulation results, not from the disease of the spleen, but from obstruction of branches of the portal vein, or some other organic changes in the liver; and that it is caused, as in cirrhosis, by a mechanical bar to the passage of the blood.

A circumstance somewhat against this supposition is, that obstructed circulation through the liver does not commonly cause great enlargement of the spleen; and that, in most of the recorded cases in which vomiting of blood has been associated with enormous enlargement of the spleen, the enlargement of the spleen has been the effect of ague, which does not often lead to obliteration of the veins of the liver, or to other organic changes which impede the passage of blood through it. It is for morbid anatomy to settle this point. Only one opportunity of elucidating the subject by dissection has fallen to me; and, in that instance, I failed to discover any mechanical impediment to the passage of the blood through the liver.

The question then occurs, Does not some degree of impediment to the passage of blood through the liver in such cases result from an unnatural condition of the blood itself, in consequence of suspended action of the spleen? There can be little doubt that the spleen contributes, like the liver, to the reparation of the blood. If either of those organs be much diseased, a state of lasting anæmia results. It seems not unlikely, from the anatomical relation of the two organs, that the changes effected by the spleen are preparatory to those effected by the liver; and that, if the former changes be prevented, the blood that flows to the liver may not be in healthy relation to its secreting cells; and, in consequence, its course through the capillary net-work of the lobules may be in some degree hindered, and a disposition to ascites and gastric hæmorrhage result.

As I have before observed, it is for morbid anatomy to decide if this supposition be true.

HISTOLOGICAL ANATOMY
AND
MICROSCOPICAL MANIPULATION.

By Da. BOON HAYES,
Formerly Lecturer on Anatomy, Physiology, and Pathology, at the Sydenham College, Birmingham.

PART SECOND.

THE PHYSIOLOGICAL DEMONSTRATION OF THE TISSUES.

Lecture VI.

Summary.—35. The Catamenia—36. Examination of—37. Alteration of Shape of Blood-globules—38. Coagulation of the Fibrin—39. Periods of Menstruation—40. Semen, Mode of Obtaining it, and its Appearance—41. Movements of the Spermatozoa—42. Permanence of Movement and Shape—43. Seminal Granules—44. Action of Acetic Acid, Liquor Potassæ, Water, Sugar and Water, etc.—45. Lymph and Chyle, their Analogies—46. Mode of Obtaining—47. Human Lymph and Chyle—48. Manipulation—49. Demonstration—50. Spherules of Gulliver—51. The Fibrin and Serum.

CATAMENIA.

35. The catamenia (*κατὰ, μήν*) or monthly discharges of females, are essentially, when examined with the microscope, composed of blood, more or less altered in its appearance, either by being for some time detained out of its proper vessels, in its passage from the body, or by the action of the vaginal mucus upon it. In addition to this, the discharge generally contains large masses of epithelial scales, derived from the mucous surfaces over which it passes.

36. The method of examining this fluid *when it is* obtained, is similar to that for examining most of the fluids of the body; but the *manner* of obtaining it must be left to the discretion of the practitioner.

The addition of a little sugar and water to any specimen will generally reproduce the natural appearance of the blood corpuscles, unless they have been ruptured by endosmosis; and it will be observed, that there is little or no tendency among the globules to the formation of *rouleaux*, except in certain cases, as, for example, where there has been a very excessive discharge *(menorrhagia.)*

37. Now, the alteration in the shape of the blood-globules is doubtless referable to one or both of the causes above mentioned. For when there is an excessive discharge, the proportion between the acid vaginal mucus and the blood is greatly in favour of the blood, or, in other words, the mucus is diluted by the predominating quantity of the blood, and thus has not power or time to act upon it, so as to cause distension or rupture of the globules.

38. It has been stated by some authors,(a) that the fibrin of the catamenial blood will not coagulate. But this depends upon the amount of admixture with vaginal mucus (and the amount of vaginal mucus may generally be judged of by the number of epithelial scales, these being, in fact, in proportion to this discharge); in all excessive discharges clots are formed, though fibrillation is imperfect.

These are points which should be borne in mind when giving evidence upon matters involving the diagnosis between the catamenia and blood; as in the case of blood saturating a napkin, when it is distinctly stated that this napkin has been used for the ordinary monthly purposes, and not to staunch the blood from a wound. A microscopic analysis would not perhaps be sufficient evidence for the decision of a jury *per se*, but would certainly be most valuable accumulative evidence.

39. The catamenia occur at regularly stated intervals, from the age of about thirteen to fifty, allowing a slight margin on either side of the scale; sometimes from birth, though rarely, and sometimes continuing considerably beyond fifty. They are interrupted generally by pregnancy, and their cessation is about the earliest symptom of that condition. During lactation they are ordinarily absent. As their name denotes (catamenia, menses), they appear about once a month, and generally last from three to five days upon each occasion. The most distinctly diagnostic mark of catamenial and common blood stains, in addition to the amount of epithelium, as brought to light by the microscope, with which I am acquainted, is, that upon washing the suspected stain with pure recent liquor sanguinis, totally deprived of its corpuscles, more of the red globules will be restored to their original figure in common blood than in the catamenial blood; and this is what might be expected, for in common blood, the globules shrink and shrivel up, become corrugated from drying, etc.; and, therefore, can have their figure restored by admixture with their own proper liquor sanguinis; not so with catamenial blood, for in it the red globules have been ruptured by endosmosis, and, therefore, cannot have their figure restored.

(a) Dr. Dewees and others.

SEMEN.

40. Semen, which may be variously obtained, but best from the testicle of a recently-killed animal, is composed of a fluid (*liquor seminis*) holding, suspended in it, *spermatozoa*, (*σπέρμα, ζοή*) life-seed, and small granules,—"seminal granules." When a *small* portion of this tenacious fluid, recently emitted or obtained as described, is placed upon the stage-glass, protected by an over-glass, and examined with a power of about 100 diameters, numberless little moving bodies will be seen. They are so delicate, that a very slight amount of light only is adapted to their perfect demonstration. They consist of a head or body in shape, oval, and slightly flattened, and a prolonged extremity or tail. And there is such a difference in the comparative thickness of the head and the tail, that the two cannot be seen synchronously, for, when one is in focus, the other is not; hence each requires a separate use of the fine adjustment. (I think this is the first time, through these demonstrations, that this adjustment has been really required.)(a)

41. The movement of a spermatozoon is peculiar. If carefully watched, it will be seen to be propelled forwards by the gyration or lashing of the tail, as a boat is by the *sculling* process. It may, perhaps, be regarded as a ciliated cell with a *single* cilium, and there appears to be no evidence which would lead one to the conclusion, that it is an animalcule or entozoon, as its name would denote. In short, its development is similar to that of common cells, as before alluded to in Lecture IV.

42. It is stated by some, that admixture with urine destroys this power of movement, but I have seen the spermatozoa moving after they must have been immersed for eighteen hours in that fluid; nay, more, sugar and water, or even salt and water, will not affect them for some time, unless the solution be very strong. Their form is permanent, and easily detected, even after they have been dried upon linen for a considerable period (a year and ten months!) This is important to the medical jurist, and will be referred to more definitely at a future time.

43. The seminal granules of Wagner are small round cells; they are colourless and granular; by some, these were thought to be mucous globules, which they much resemble. They are about the $\frac{1}{10\,000}$ of an inch in diameter.

In addition to these more definite structures, exceedingly minute granular matter may be observed, and squamous and columnar epithelium cells.

44. If you treat semen with acetic acid, the albuminous matter is coagulated, and, in the coagulum, the spermatozoa are involved with the seminal granules of Wagner, etc., the motion of the spermatozoa instantly ceases, and cannot be reproduced, either by dilution with water, or neutralisation with liquor potassæ; and, after a long period, liquor potassæ has the same effect as acetic acid. Water, salt and water, etc., have little effect upon the movement, if any, and cause no alteration in the shape of the body or head of the spermatozoon.

CHYLE AND LYMPH.

We now proceed to examine chyle and lymph. These are, microscopically, essentially the same; and perhaps they differ chemically only as it relates to time in the elaboration of the fluid. Chyle may, perhaps, be considered the more elaborated of the two, though some have thought that this view of the case was rather the result of the fact, that more attention has been paid to its investigation than to the investigation of the structure of lymph; but chyle contains one microscopic element more than lymph.

46. Chyle (*χυλός, οὖ*) may be examined as derived from three different sources,—from the thoracic duct, the most accessible source,—from the lacteals leading from the glands of the mesentery to the thoracic duct,—and from the lacteals leading from the intestines to the mesenteric glands.

(a) See Caution 6, section 53, Third Lecture.

If chyle be looked for, an animal must be opened soon enough after a meal for the digestive process to be fully commenced, but not completed. If lymph be looked for, the animal should be killed and examined after long fasting. For common purposes of examination, you obtain both from the thoracic duct.

47. The only mode of observing the lymph or chyle of man satisfactorily is in the case of rapid *post-mortem* examination after an execution, or after some accident, when this might be obtained. Dr. Rees examined the fluid obtained from the thoracic duct of a criminal immediately after execution, and enough was then discovered to show, that these fluids, as obtained from the lower animals, give us all the information absolutely necessary to the description of their history in the animal economy.

48. Kill a young dog or cat two hours after it has taken a semi-fluid and full meal. Rapidly, but carefully, open its chest, and tie a ligature round the top of the thoracic duct. In a few moments the duct will begin to be distended by the continual *vis à tergo*, from the still acting villi of the intestines,—somatic death not being at present perfect. It may be, that the thoracic duct will burst by this force; but unless you wish to try this experiment, as soon as the thoracic duct is moderately full, clean it with a sponge, and in a watch-glass, by pricking the front of the vessel, collect the chyle or lymph as the case may be,—that is, according as the animal has fed or fasted before death.

49. Place a drop, say of LYMPH, on the stage-glass, with the microscope planted as for the examination of blood. You will now observe "*lymph-globules*;" these agree entirely with the white corpuscles of the blood (figure 23 and 26 – c., Lecture V.) Perhaps, also, you will observe a few red globules. These have entered, probably, from the wound made in the coats of the duct by the pricking. A few very minute bodies will also be seen, which, as they disappear immediately upon the addition of ether, are, in all probability, fatty particles. There are also some undoubted oil-globules.

With the exception named, the action of re-agents upon lymph is the same as that upon the white corpuscles of the blood. (25, Lect. V.)

50. Now, all these structures are observed in CHYLE; and, in addition, minute structures, the "*minute spherules of Gulliver.*" Though of nearly the same size as the fatty molecules referred to, they may be distinguished from them *by the want of effect of ether when added to them, they being totally insoluble in that re-agent.*

51. The fluid matter of both chyle and lymph is a *plasma*, containing fibrin in solution and serum. This fibrin coagulates on being drawn from the thoracic duct, and leaves the serum, as in the case of blood coagulation. The serum of lymph contains *more* oil-globules than the serum of chyle, but less fibrin. Fibrillation goes on rapidly in the clot formed from chyle taken from the *top* of the thoracic duct, when the conditions of fibrillation are observed.

ORIGINAL COMMUNICATIONS.

A CASE OF OVARIAN DROPSY,

IN WHICH THE REMOVAL OF THE TUMOUR WAS FOLLOWED BY DEATH.

By T. H. TANNER, M.D.

Licentiate of the Royal College of Physicians, Physician to the Hospital for Women, etc.

To the numerous fatal cases of ovariotomy already recorded, I have, with much regret, to add one which occurred in my own practice a few days since; and as the notes taken at the bedside may not prove altogether uninstructive, I need hardly apologise for placing them before the readers of the *Medical Times and Gazette* at some length. I may also, perhaps, be permitted to say, that I feel especially bound to publish the present unfortunate case, since, in the early part of last year, I made public the history of a patient from whom I successfully removed a large ovarian cyst, and who is now in the enjoyment of perfect health. Feeling, therefore, in common with all practitioners, a strong hope that we may soon possess accurate statistics on the subject of ovariotomy, I have been desirous of adding my aid to the attainment of such desirable information, in order that our future practice may be based upon that certainty which can only be afforded by deductions from numerous trustworthy and well-arranged observations.

Mary S., aged 46, married twenty-four years, never pregnant, applied to me as an out-patient at the Hospital for Women, October 13th, 1852. She stated, that, with the exception of an attack of rheumatic fever, about twenty years ago, she had always enjoyed good health, although never very strong. Catamenia first appeared at 17, without pain; they continued regular until her marriage, since which time they have been slightly irregular, and attended with pain, occasionally with great suffering. They are now regular as to time of appearance, but are scanty. Has always had a leucorrhœal discharge. About three years ago, she fell down some stone steps, and struck her right side a severe blow. A medical man, who was called to her, stated that she had broken two of her ribs; she was laid up for a fortnight, and then soon got well. About eight months since, she attempted to move a heavy piece of furniture; and, while doing so, suddenly felt something give way in the lower part of her abdomen. This was followed by very great pain, which, however, shortly subsided.

From this time her abdomen has been gradually enlarging, the enlargement, according to her account, being uniform over every part, and never having been at all more appreciable on one side than on the other. She has had advice at one of the metropolitan hospitals, and has taken large quantities of iodine. The swelling has, however, rapidly increased, and her health is now suffering, she being very much reduced.

On examination, the abdomen was found to be as large as that of a woman at the full term of pregnancy. Fluctuation could be distinguished over every part, and there was universal dulness on percussion. The diagnosis was clear, and to the effect that there was an ovarian cyst, probably one large one, and smaller ones near the pedicle; it was considered not to have formed peritoneal adhesions, and no solid matter could be detected. Owing to the great pain and tenderness experienced, and to the frequent attacks of dyspnœa from which she suffered, it was determined to withdraw the fluid contents of the cyst by tapping; and this was accordingly done on the 25th of October, when rather more than nine pints of a dark-coloured, gelatinous liquid, somewhat resembling linseed-tea, were taken away. The fluid was of neutral re-action, had a specific gravity of 1030, and contained a large quantity of albumen. During the operation the patient was placed at the edge of her bed, in a recumbent position, on the right side, being gradually turned over on to her face as the contents of the cyst flowed out. The advantages which result from this position have been before pointed out. The patient soon recovered from the tapping, her health began to improve, and she was discharged from the hospital, apparently cured, on the 14th of December.

About the beginning of the month of February, 1853, this woman again applied to me, as her stomach was enlarging for the second time, but not rapidly. She stated, that she was sure she should soon be as bad as ever; and she expressed an earnest wish, that the tumour should be removed before it got larger. I told her of the great danger of such an operation: and, at the same time, remarked, that I did not consider it proper to put her to such risk, unless there appeared more necessity for doing so than at present existed. Dr. Protheroe Smith and Mr. Sanderson also saw her, and confirmed my views, which, however, did not appear to satisfy the patient. I advised her to seek country air, which she did, and I did not again see her until March 2nd, when she again came to me in great distress, as her "stomach was rapidly refilling." She observed that she had suffered much pain in the abdomen since her last visit to me, that during the past week she had increased three inches in circumference (measuring the abdomen at the umbilicus), and that she had been much troubled with sickness and vomiting. Catamenia ceased four days ago, after having been on for three days. On examination, the tumour was seen distending the abdomen, especially the lower part; there was distinct fluctuation in it, and dulness on percussion over every part. She again expressed her urgent desire to have the tumour removed, stating that she felt certain it could be taken away, and that she had a strong impression that she should get quite well. She was ordered to keep quiet, to have plenty of light nourishment, and to take some ammonia

in an effervescing mixture with the dilute hydrocyanic acid in doses of three minims.

On March 9th she was better as regards the sickness, but still complained of pain and weakness, and stated that her breath had been very short and troublesome during the week. The tumour appeared to me to be in the same state as when last examined. She said herself that it was larger. As she again urged her wish of submitting to an operation, I laid before her, for at least the second time, all the severe dangers of such a formidable proceeding, placing much stress also upon the fact, that until the operation was commenced, it was impossible to say with certainty whether it could be concluded,—that is to say, whether the cyst could be removed. This had no effect, however, in altering her determination, and taking into consideration that the tumour was now rapidly increasing in size, that her health was evidently being very much injured by it, and that she was enduring much pain and suffering from it, I determined to accede to her request. She was directed to continue her ammonia mixture, to take plenty of nourishment, and to make arrangements for the operation to be performed at once. In accordance with her wish also she was not taken into the hospital, as she had a very clean and comfortable home, and could command all the necessary comforts and attendance.

Monday, 14th March.—She is in excellent spirits to-day. Has learned that the operation is to take place to-morrow, and expresses pleasure at thinking that she will so soon be well. Was ordered to take a dose of castor-oil this evening. Is to have some milk for her breakfast to-morrow, and at noon some strong beef-tea, with a little bread.

Tuesday, 15th March, half-past 4 p.m.—Assisted by my colleagues, Dr. Protheroe Smith, Mr. Scott, Mr. Sanderson, as well as by Dr. Gundry, of Rochester, United States, I proceeded to remove the tumour, the patient being seated at the side of the bed, propped up by pillows, and narcotised by the inhalation of chloroform; the temperature of the room was raised to 75° Fahr. I commenced by making a small incision about three inches long, midway between the umbilicus and pubes, and, opening the peritoneum, exposed the tumour. Passing in my finger, it was found that there was some slight adhesions, but as these were readily broken down—being evidently of recent formation, I continued the operation. Unfortunately, there were some bands of lymph of a firmer kind existing between the upper part of the tumour and the peritoneum, but these were overcome by the finger without trouble or much force. A trocar was then plunged into the cyst, but as only a small quantity of very thick gelatinous matter issued through the canula, another instrument was pushed into the tumour higher up, and evidently into a separate cyst: about two pints of a dark coloured fluid were withdrawn. Finding, then, that the lower part of the tumour was composed of solid matter, and that the opening already made was not sufficiently large to allow of the exit of the mass, the incision was increased in length, and the cyst and solid matter slowly drawn out. It was then seen that the pedicle was very thick, and after some little difficulty it was found to have formed adhesions with the intestinal canal. A ligature was, however, tightly placed round the pedicle, just above its union with the intestine, and the mass was then removed. This proceeding was followed by hæmorrhage, which, though not very abundant, yet, combined with the operation, was quite sufficient to reduce our patient to a rather alarming state of exhaustion. Brandy was given, and two or three bleeding vessels having been ligatured, the edges of the wound were brought together by numerous interrupted sutures, and the patient drawn up into bed. To guard against the risk of internal hæmorrhage, a piece of ice was applied to the abdominal wall, and she was given two grains of solid opium in a pill. For the few hours succeeding the operation, I remained with my patient, giving at intervals a small quantity of brandy and water, and occasionally small pieces of Wenham Lake ice, for which she was very grateful. As there was no appearance of any hæmorrhage, the application of the ice was discontinued, and water-dressing applied to the wound. At half-past seven o'clock she was free from pain, but felt low. Pulse 100, feeble. Another pill was given, containing one grain of opium. At ten o'clock she expressed herself as feeling comfortable, having dozed for more than an hour. At one o'clock, a.m., on Wednesday, March 16, I drew off half a pint of urine with the catheter. Pulse 90; skin cool and comfortable. Has had some sleep. She was then doing so well that I left her, ordering her one grain of opium immediately, and to be repeated every four hours. Ten o'clock a.m.—I found her doing very well. She had had some refreshing sleep, was free from pain, and was in good spirits. Pulse 96. Wound looking healthy. Urine withdrawn. Takes a little tea, weak brandy-and-water, ice, and the opium every four hours. During the day, Dr. Protheroe Smith visited her, and considered that she was progressing very favourably. Dr. Gundry also saw her and was of the same opinion; and I continued to visit her myself about every four hours.

On the following day, Thursday, March 17, she was not quite so well, as, unfortunately, the catamenia had come on, although not due for about ten days. In her weak state this had tended to depress her. During the day her pulse rose to 120; tongue was clean; no tenderness of abdomen. In addition to a continuation of the treatment, she was allowed a little good beef-tea, and the yelk of an egg beaten up in sherry. When visited the last thing at night she was better, and fancied she should have a good night's rest. Up to this time she had taken nineteen grains of opium.

Friday, March 18.—Much better this morning. Has passed urine voluntarily and without pain. Pulse moderately strong, easily compressible, 110. Wound looking very healthy. Catamenia continue. She takes the opium every four hours now. Continues the same with her nourishment. Dr. Protheroe Smith again visited her to-day, and considered that she was progressing very satisfactorily.

Saturday, March 19.—Remains much the same; complains of feeling a little inclined to vomit. Pulse 100. Wound looks healthy, and appears healed, except at the lower part, where the ligatures hang out. Removed all the sutures, and applied strapping. There is no tenderness at any part. She was ordered a few drops of the dilute hydrocyanic acid in almond mixture, and to take the opium less frequently. Bowels have not been opened since the operation, but I do not think it advisable to be in any hurry as to their acting. Catamenia have ceased. Repeat the opium every seven hours.

Sunday, March 20.—Is better this morning, having passed a good night. Pulse 96, soft, but strong. Wound looking well. At five o'clock p.m., she complained of feeling a little sick, but thought it would go off. She continues her brandy-and-water, the ice, the egg, and sherry, and has had some good mutton-broth for her dinner. At ten o'clock p.m., I was sent for in great haste, as she had suddenly become much worse, having had a severe attack of vomiting. On arriving at her house, I found that she was rapidly sinking, her pulse being almost imperceptible, and her skin cold, and covered with a clammy perspiration. She was sensible, and complained of feeling very exhausted. Brandy was given in large doses frequently; warmth applied to the body and extremities; but the treatment was of no avail, and she died in rather less than five hours.

In deference to the strong wishes of the friends no *post-mortem* examination of the body was made. It only remains, therefore, for me to describe the nature of the tumour removed. This consisted of one large cyst, containing at its lower part several secondary cysts, and some solid matter, about the size of the fœtal head. There was nothing peculiar about the cysts, which appeared to have been formed in the left broad ligament of the uterus. On the external surface of the parent cyst, so to call it, was found the left ovary, which, on being dissected off and examined, was found to be healthy. The smaller cysts were filled with a thick, gelatinous matter, somewhat resembling honey in appearance: it must have been one of these sacs that I tapped at the commencement of the operation. The remaining solid matter had to the naked eye a most suspicious appearance, resembling soft medullary or brain-like cancer. On examination by the microscope, numerous cells, which I regarded as cancer cells, were discovered. As they presented some peculiarities, however, I sent a piece of the mass to my friend Dr. Brinton, of King's College, who, after a careful inspection, favoured me with the following report, which I give in his own words:—

"The specimen you have sent me consists of a small mass, in which the two opposite surfaces present a different density and structure.

"One is tolerably firm and gelatinous, with a smooth defined border. The other is soft, irregular, and pulpy; here and there almost a magma.

"Examined under the microscope, the first seems to be

fibrous, *i. e.*, it exhibits tolerably regular striations. Intermixed with these, however, are very numerous cells, or, rather, cytoblasts, of about $\frac{1}{1000}$ of an inch in diameter. Very careful separation in a strong saline solution breaks up many of the delicate fibres into what are short fibre cells, in shape somewhat resembling those of organic muscle. In other instances, the prolongation of the cell into the spindle form is much less marked. In others it is absent.

"The second or softer portion consists chiefly of cells, united to each other by an apparently structureless albuminous material. The cells are rather larger than those mentioned above.

"Many contain two or more nuclei, and some appear to be undergoing fission. Others are much smaller, and may perhaps be regarded as the results of such a process.

"As far as I could judge, no great number of vessels permeated the interior of the mass. The arrangement of those present I did not verify. Of course there was much 'granular matter' here and there, as well as many relics of cell-structures; but, for obvious reasons, one cannot lay any stress upon these appearances. On the whole, I think there is little doubt that the specimen is the result of what is called malignant disease."

The rapid growth of the solid matter, moreover, favours the idea of its malignancy, since I am sure that no such mass existed when she was tapped a few months previously. At this period, also, the cyst had contracted no adhesions with the adjacent peritoneum, since, as the fluid was evacuated, the large empty bag could be distinctly felt falling into the cavity of the pelvis; and on subsequent examination the abdominal cavity was found occupied by intestine.

In conclusion, I would state, that I believe the vomiting was the cause of this patient's death, inasmuch as it produced prostration so severe, that, in her weakened condition, the vital powers were too much depressed to bear up against it.

Charlotte-street, Bedford-square.

ON VAGINAL CYSTOCELE,

OR

PROLAPSUS OF THE ANTERIOR WALL OF THE VAGINA AND BLADDER,

AND A NEW OPERATION FOR ITS CURE.

By J. BAKER BROWN, F.R.C.S., ETC.

This condition of the vagina is not uncommon, and is sometimes mistaken for prolapsus uteri; it is generally met with in females who have passed the middle age, and have borne children.

There are three modifications of prolapsus of the vagina, viz.: prolapse of the anterior and posterior parietes of the vagina, and of its entire circumference,—the two first connected with other organs; the third occurs independently. Of the first of these I purpose to speak in this paper, *i. e.*, prolapsus of the anterior parietes of the vagina, and of the bladder; or, as it is also called, prolapsus vesicæ, or vaginal cystocele.

Here the vagina, or, more properly speaking, the inner membrane only, becomes relaxed, generally from repeated child-bearing; and the urine, having been allowed to accumulate, distends the bladder, and, pushing it downwards, protrudes the yielding vagina.

Every fresh accumulation increases the distension to a greater degree, and complete prolapse through the external parts is the result.

Symptoms.—The patient complains of a weight and bearing down, and sensations of dragging in the lower part of the abdomen, unpleasantness in walking, and more or less dysuria,—the bladder having, to a great degree, lost its power of contraction; some patients are obliged to replace the bladder before they can evacuate the urine.

On examination, a soft, elastic, fluctuating tumour is felt at the orifice of the vagina; it is of a red or bluish-red colour; and this tumour can be greatly diminished by catheterism; the finger can be passed into the vagina below the tumour, and the os uteri can be felt behind, nearly in its natural situation. The surface of the tumour, when distended, is smooth, moist, and shining; but, when the bladder is empty, it is thrown into transverse folds. There is always very considerable mucous discharge, which is exceedingly irritating to the labia and soft parts generally; and there is sometimes a very distressing irritability of the bladder, and the urine, when passed, is fetid, and contains much ropy mucus. This arises from a small portion of the urine being always left in the bladder, and, consequently, decomposition of that secretion. This subject has been lately dwelt on in an excellent paper, by Dr. Golding Bird, in the *Medical Times and Gazette*, Jan. 1st of this year, headed, "Remarks on Prolapsus of the Anterior Wall of the Vagina, as an Occasional Cause of Fetid Phosphatic Mucous Urine." This short paper is well worthy of perusal.

This condition may be easily distinguished from prolapsus of the uterus; it is soft and yielding to the touch, and, on introducing the catheter, the point will be felt through the walls of the tumour, towards the anus, and, on passing the finger upwards, the os uteri can be felt in its natural position; it can also be distinguished easily from prolapsus of the posterior wall of the vagina, or rectocele, or from inversion of the uterus; that condition preventing the passing of the finger into the vagina at all.

Treatment.—This will depend on the extent and duration of the prolapsus. If it be of recent date, and occurring in young females, the treatment should be frequent catheterism, recumbent posture, astringent injections within the vagina, such as alum, oak-bark, infusion of galls, sulphate of iron, cold water, etc., or keeping a bent metallic catheter constantly in the bladder, to which is attached an elastic bag, so that the bladder is constantly empty, and, at the same time, keeping a sponge tent within the vagina, so as to uphold the bladder. I have now under my care a young lady of 24, the mother of two children, who came up from the country, to place herself under my care for prolapsus of the womb, as was supposed. This patient is very considerably improved by the above-mentioned treatment, and will shortly be convalescent.

If, however, the prolapsus be of long standing, and occur in females beyond the period of child-bearing, the treatment should be more severe and radical in its nature. Some recommend plugging the vagina with pessaries, made especially for this condition; and great ingenuity has been displayed in their formation. All these contrivances, however, frequently produce so much irritation as to prevent their being used, and hence the necessity for some surgical procedure. It has been recommended to remove a slip of the mucous membrane, in the form of a triangle, the base being towards the orifice of the vagina, and bringing the edges together by sutures, thus contracting the calibre of the vagina. Others recommend the use of the actual cautery over the tumour, so as to produce a slough, and subsequent cicatrization. Another plan has recently been proposed by M. Jobert, of Paris. He encloses within two curved transverse lines, an oval space, more or less considerable, in the posterior surface of the vagina, by means of caustic, so as to form an isolated spot, repeating the application of the caustic till the mucous membrane is destroyed. He then pares the edges with scissors or a bistoury, draws them together, and maintains them in apposition by means of straight needles (the points of which are removed) and a twisted suture. He operated thus on a patient in July 23, 1838, and on two others subsequently, with success. I propose, in this paper, to show the results of a new operation I devised for this distressing condition of the female, and shall therefore give the history and symptoms of Mrs. Triggs, aged 52, on whom I operated in the theatre of St. Mary's Hospital a few weeks since.

Martha Triggs, aged 52, has had ten children. Admitted into Boynton Ward, St. Mary's Hospital, February 14, 1853 suffering from a severe prolapsus of the vagina and bladder which first began to trouble her nine years ago, after her last child. On the least exertion of walking, or standing even, or coughing in the recumbent position, the tumour comes down and extrudes through the external orifice of the vagina, to the size of a large fist. On lifting up this tumour when so extruded, you observe on the under and posterior surface of the os uteri, which is dragged down by the vagina two or three ulcerated spots produced by friction against the posterior walls of the vagina. The patient can, when reclining on her back, replace the tumour herself. She has a cough from chronic bronchitis, which she generally has in winter, complains of feeling weak, and her appetite is capricious. Three years since she had an attack of jaundice, and had rheumatic fever when a child. There is a bruit at the

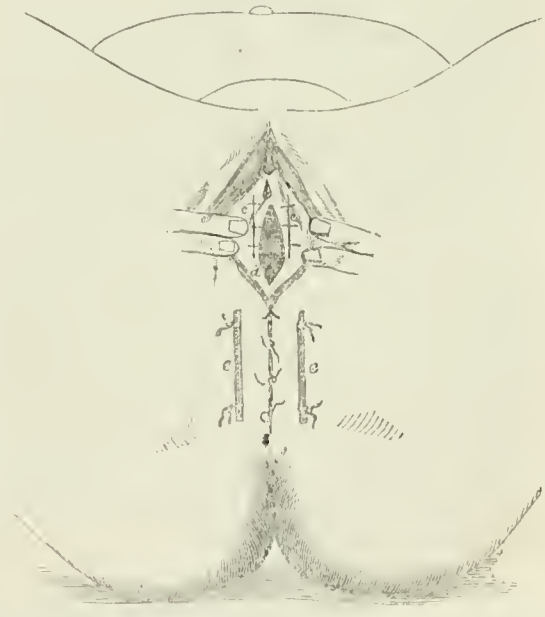
second sound of the heart at its base. Resonance at apices of both lungs, with healthy, though rather loud breathing. She has also the arcus senilis.

This patient being a servant in place, suffered greatly from her condition, and was obliged always to wear a bandage or napkin to prevent the extrusion of the tumour, and this very support, by the friction and heat produced by its application, rather increased than diminished the inconvenience and suffering. Her spirits were depressed by this daily wear on the body, and the poor woman became an object of great pity and commiseration. I am indebted to my friend, Mr. Clarke, of Gerard-street, for seeing this patient, he kindly recommending her to place herself under my care.

a, meatus; *b*, catheter introduced and seen by dotted lines through the tumour.

The patient having been prepared for the operation by emptying the bowels, was on February 15th placed under the influence of chloroform, and then put in the position for lithotomy, each leg being held by an assistant, a third assistant holding up the tumour with Jobert's bent speculum, and pressing it under the pubis in its natural position. A piece of mucous membrane, about one and a-quarter inch long and three-quarters of an inch broad, was dissected off longitudinally, just within the lips of the vagina. The upper edge of the denuded part being on a level with the meatus urinarius, the edges were drawn together by three interrupted sutures, this being repeated on the other side of the vagina. The next stage of the operation consisted in dissecting off the mucous membrane laterally and posteriorly in the shape of a horse-shoe, the upper edge of the shoe commencing half an inch below the lateral points of denudation, taking care to remove all the mucous membrane up to the edge of the vagina where the skin joins it. Two deep sutures of twine were then introduced about an inch from the margin of the left side of the vagina, and brought out at the inner edge of the denuded surface of one side, and introduced at the inner edge of the other denuded side, and brought out an inch from the margin of the right side of the vagina, thus bringing the two denuded surfaces together, and keeping them so by means of quills, as in the operation for ruptured perinæum. The edges of the new perinæum were then brought together by interrupted sutures, and the patient placed in bed on a water-cushion; two grains of opium given directly, and one grain every six hours; simple water dressing applied to the parts; beef-tea and wine for diet. A bent metallic catheter was introduced in the bladder, to which was attached an elastic bag to catch the urine. By this means the bladder was constantly kept empty. This patient progressed satisfactorily from day to day without a single bad symptom, and on the 22nd the deep sutures were removed, and the parts found firmly united. The lateral interrupted sutures were gradually removed, and firm union found to have resulted.

a, clitoris; *b*, meatus; *c c*, lateral incision; *d*, entrance of vagina; *e e*, horns of perinæal incision; *f f*, perinæal sutures; *h*, rectum denuded of its vaginal (mucous?) covering; *g g*, four points of interrupted sutures.



c c, lateral interrupted sutures; *d*, orifice of vagina; *e e*, quill sutures *g*, interrupted perinæal sutures.

On the 26th, I examined very carefully the vagina, and found the deep union perfectly sound, about three-quarters of an inch thick, the lateral wounds well contracted; the tumour could not be brought down by coughing.

March 8.—The parts are all firmly healed, the patient much improved in health, with a very cheerful aspect of countenance. She can walk about without inconvenience, and no amount of exertion produces any prolapsus. She can empty her bladder with comfort, and all the leucorrhœal discharge, which was so distressing before the operation, has entirely subsided; the offensive smell of the urine has also disappeared. On passing the finger into the vagina, the os uteri can be felt easily in its normal position, and the

ulcerated spots which formerly existed on its surface are healed.

On the 10th she was discharged cured, and resumed her duties as domestic servant.

a, clitoris; *b*, meatus; *c c*, lateral vaginal sutures; *d*, orifice of vagina; *e e*, perinæal sutures; *f*, new perinæum; *g*, true ditto.

Remarks.—It will be observed, that the object sought in this operation was the contraction of the calibre of the vagina, which, as may be imagined, was exceedingly enlarged and flabby. The first step of the operation was the contraction of the vagina laterally, so as to prevent the tumour from falling down from above; the second step of the operation was for the purpose of contracting the vagina posteriorly as well as laterally; and, finally, adding to the extent of the perinæum, by contracting the orifice of the vagina at least two-thirds, so that, should the prolapsus not be restrained by the lateral contractions, it could not extrude beyond the orifice of the vagina, but must necessarily fall upon the new perinæum. As is proved by the result, all the objects sought have been fully attained, and it is scarcely possible to imagine a more satisfactory result from any operative procedure. It will also be observed, that the benefits derived from this operation for vaginal cystocele will be equally, if not more applicable to vaginal rectocele, as well as to prolapsus of the entire vagina, and also, with some slight modifications, as to the denudation of the mucous membrane, to prolapsus uteri.

16, Connaught-square, Hyde-park.

Marischal College and University of Aberdeen.—Presentation of Silver Plate to Professor Pirrie.—On the afternoon of Friday last, when Professor Pirrie had finished his concluding lecture to his Surgery-class in Marischal College and University, Robert Oates, Esq., in a brief but eloquent speech, presented him with a most valuable and elegant silver salver, bearing the following inscription:—"To William Pirrie, Esq., Regius Professor of Surgery, Author of the 'Principles and Practice of Surgery,' from the Students attending his Class during Session 1852-53, as a small tribute of their respect and esteem." The learned Professor, in acknowledging this unexpected mark of esteem, (the third presentation of the kind he has received from his pupils at Marischal College,) paid a graceful compliment to the students, and assured them, that he should never cease to cherish towards them all a grateful remembrance of their gentlemanly conduct and affectionate regard.

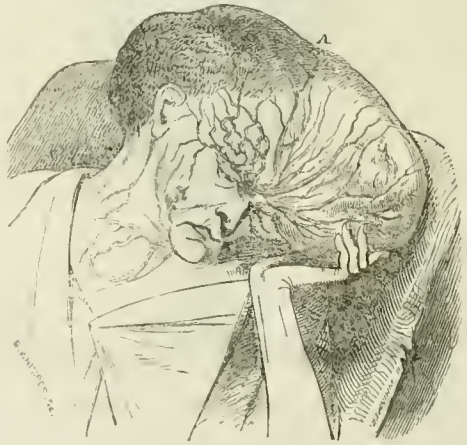
THE LONDON AND PROVINCIAL
PRACTICE OF MEDICINE AND SURGERY.

ST. BARTHOLOMEW'S HOSPITAL.

ENORMOUS GROWTHS OF MEDULLARY CANCER FROM THE SKULL AND CLAVICLE.—DEATH.—AUTOPSY.

[Under the care of Mr. LLOYD.]

Jane Cook, aged 68, the unfortunate subject of the extraordinary disease represented in the appended sketch, was admitted, under Mr. Lloyd's care, December 12, 1852. On her head were two tumours of enormous dimensions, the left being the larger, and extending from the orbit, into which it projected so much as to conceal the eye, backwards over the whole left half of the cranium to the occipital protuberance. The tumour on the right side, scarcely half the size of the other, extended from the right parietal eminence backwards and downwards some distance into the neck. (The letter A is placed over the space intervening between the two growths.) Over the sternal portion of the right clavicle was another mass of similar character. In each case the swelling felt tense and elastic, and yielded to the finger a very deceptive sense of fluctuation. The superjacent skin was crossed by a network of very large veins, but was not otherwise diseased. They were very little tender on



pressure. The patient stated, that she had lost one of her sisters with cancer of the breast, and four of her children had died consumptive. She herself had enjoyed excellent health up to the time of the appearance of the smaller growth on the cranium, which followed soon after a slight blow, which she received about seven years ago. It gradually increased in size, without occasioning any pain, for three years, when another contusion inflicted just over the left eyebrow was followed by a small bean-like induration, in which the larger tumour originated. The growth from the clavicle had appeared spontaneously about a year ago. It was only within the last eighteen months that her health had materially declined, during which time she had suffered very severely from darting pains in the tumours, which had occasioned her much loss of rest, and reduced her to the last degree of emaciation. Her mental faculties remained perfect, and she had never suffered any symptoms of compression of the brain.

Neither Mr. Lloyd nor Mr. Paget, under whose care she had been some months prior to her admission, entertained the slightest doubt as to the nature of the disease, and it was equally clear that nothing could be expected from surgical interference with growths involving such a vast extent. The woodcut which we have given above does not, indeed, convey a full idea of their ultimate dimensions, as it was taken from a drawing kindly lent to us for that purpose by Mr. Paget, under whose direction it had been executed several months before the date of her admission into the hospital. During the fortnight previous to her admission she had been getting much worse, and it appeared very evident when she entered the hospital that death must soon ensue. Stimulants and narcotics were administered, but, in spite of them, she continued to grow weaker from day to day. She died on the 20th, apparently from sheer exhaustion, worn out by loss of rest. At the *post-mortem*, appearances very closely similar to what had been expected were discovered. The structure of the tumours on the head consisted of tolerably firm medullary cancer, into which, in many parts, much blood had been extravasated; they appeared to

have grown immediately from the skull itself, the tables of which were much diseased, and, in one part, broken down into a perforation of considerable size, through which the external tumour communicated with a large flattened mass, developed between the dura mater and the inner table of the cranium. This opening was on the left side of the head, under about the centre of the larger tumour. There were also numerous small masses of deposit, distinct from the external growths, imbedded in the inner table, and surrounded by a rough edge of bone; they were tolerably firm, and of a greyish-white colour. The brain was somewhat compressed and flattened, its convolutions were narrow, and its structure dry and solid; it was in no way implicated in the morbid growths, all of which were external to the dura mater. The tumour springing from the clavicle was of similar character to the others, and grew apparently from the bone itself. Some of the cervical glands were much enlarged. Numerous small masses of soft cancer were found studded through both lungs, especially in the right; with this exception, the thoracic and abdominal viscera were free from disease.

The appearances presented by the juice of the tumours, when placed under the microscope, was peculiar. It contained extremely few cells, being composed almost entirely of round, granular, non-nucleolated nuclei, which varied in size from $\frac{1}{8000}$ to $\frac{1}{2500}$ of an inch, and were, for the most part, arranged in round or oval clusters. This clustering did not seem to be accidental, as the bodies formed were regular and definite in shape, and their component nuclei were arranged very closely, and in evident order. Some few small cells were seen enclosing nuclei of nearly their own size. In the masses from the lungs, cells were more abundant, and much more closely resembled those common in medullary cancer.

MIDDLESEX HOSPITAL.

GONORRHŒA.—ORCHITIS.—ACUTE ABSCESS IN THE INGUINAL CANAL AROUND THE VAS DEFERENS.

[Under the care of Mr. MOORE.]

If we are to accept what we suppose is the current doctrine of the day respecting the pathology of gonorrhœal orchitis, that it results from extension of inflammation along the continuous mucous surface from the urethra to the testis, it does certainly seem a little surprising that symptoms so rarely occur referable to the affection of the vas deferens. We are not aware that we have ever seen the exact counterpart to the following case, in which suppuration took place around that canal; and as little, if any, mention has been made by authors regarding such an occurrence, we feel little doubt but that it is in the highest degree exceptional to the ordinary rule. As such, we record it, and, before doing so, would state, that it appeared probable that the case was one of gonorrhœa and its complications solely, and that, even if the patient's statement respecting the infliction of an injury was correct, which seemed very doubtful, yet, in the absence of any immediate symptoms therefrom, that injury might fairly be deemed to have exercised no influence on the course of the complaint. Charles Hilley, a cachectic man, of dissolute habits, aged 21, who had frequently suffered from gonorrhœa, but never from orchitis or bubo, received a slight blow on his left testicle, on December 26, and on the evening of the same day contracted an acute clap. The discharge from the urethra commenced on the following day, and continued profuse for a week, at the end of which time it abated, and the left testicle (from the injury to which he had as yet suffered no inconvenience) began to swell. The pain attending this latter affection was severe, and extended from the inflamed gland upwards into the abdomen and towards the left lumbar region. He was obliged to lie in bed, and to put himself under the care of a surgeon, by whose direction leeches were applied to the abdomen, and mercurial ointment to the scrotum. Under this treatment the patient became salivated, and the swelling of the testis subsided; but as there continued great pain in the iliac region, with some swelling, he was at length induced to seek admission into the hospital, which he entered on Feb. 5, 1853, one month after the commencement of his symptoms. The testis was then not larger than natural, but the epididymis remained thickened, and felt solid, but not hard. The tissues of the cord were also much swollen, matted together with lymph, and very tender on pressure. Commencing at the external abdominal ring, and extending upwards and outwards, was a broad, slightly raised, fluctuating, and very tender swelling, the borders of which were defined by a halo of induration that reached nearly to the anterior superior spine of the ilium. No doubt was felt as to presence of fluid, but, as no appearance of pointing was yet evident, Mr. Moore preferred allowing a few days to elapse before making an opening. Fomentations and poultices were accordingly directed to be applied.

On February 10, the swelling having, in the mean time, become very prominent and much larger than before, Mr. Moore made an incision into it about over the middle of the inguinal canal, from which a free discharge of well-formed pus resulted. After a few days of copious suppuration the abscess appeared to have emptied itself, and to be inclined to heal. All pain and tenderness in the surrounding parts had disappeared. From this date the improvement was rapid, no gonorrhœa returned, the inflammation of the epididymis subsided, the abscess closed, and the man regained his health; the structures of the cord, however, especially the vas deferens, remained thickened for some time afterwards.

FRACTURE OF THE OS PUBIS—RECOVERY.

[Under the care of Mr. DE MORGAN.]

We return to the subject of fractures of the pelvic bones, which, in one of our weekly reports a short time since, we illustrated by a series of cases, in order to mention a very interesting one which has just occurred at this hospital, and in which the position of the fracture differed from what was the case in any of those previously detailed. Mary Frimly, aged 30, a maid servant, was engaged on December 30 in cleaning some windows of a first storey, when her foot slipped, and she fell backwards into the area, striking the back of her left hip against a ledge of wall. The distance fallen was probably about 20 ft. She was not at all stunned, but a sense of entire incapacity to move the left thigh and leg prevented her from making any attempt to rise. When taken up she was at once conveyed to the hospital. Being a very spare woman, the examination of the parts was easy and more conclusive than usually happens. The left ilium was unduly movable on the rest of the pelvis. On placing the hand on the brim of the pelvis, a short distance to the left of the symphisis pubis, a marked irregularity of the bones was perceived, and, when the ilium was moved, very distinct crepitus was produced at this spot. These circumstances taken together made it pretty evident that fracture had taken place in a direction crossing the obturator foramen, and involving first the body and then the descending ramus of the left pubic bone. All movements, but especially those of coughing, gave her great pain. There was much tenderness about the part and in the lower half of the abdomen, but no indication of injury to any of the pelvic viscera. Neither urine nor fæces contained blood. Mr. De Morgan directed the patient to be kept laid on her back, and to have hot fomentations constantly applied. Under this treatment the tenderness of the surrounding parts subsided in the course of ten days, during which time she enjoyed tolerable health, excepting that her bowels were much confined, and their evacuation attended with great pain. At the end of a month she made an attempt to sit in bed, and was much disheartened by perceiving a very evident mobility at the seat of fracture. After the lapse of another week Mr. De Morgan permitted her to try to get up, which she accomplished, the bone appearing to be consolidated. February 20, she can walk about the ward, with, of course, some lameness, but without any pain. The thigh can be placed in any position, and the bones appear to have united in perfect apposition. About the end of February she left the hospital, walking very nearly as well as ever she could.

THE MIDDLESEX AND LONDON HOSPITALS,

THE

HOSPITAL FOR DISEASES OF THE SKIN,

ETC., ETC.

TREATMENT OF ULCERS OF THE LEG.

Leaving, for the present, out of the question the large class of cutaneous ulcers situated on the leg, which are dependent upon constitutional syphilis, we may mention, as the chief causes of those affections, varicose veins, bruises, etc., and the various cutaneous eruptions, more especially eczema and ecthyma. The latter when located on other parts of the body, but rarely give rise to much ulcerative action; we may, therefore, fairly assume that their doing so when seated on the leg depends on the peculiar circumstances in which, as to the maintenance of its circulation, the lower extremity is placed. Nearly the same may be asserted respecting the effects of slight injuries, and we are thus left to regard the depending position of the leg as constituting a very important element in the production of all ulcers there situated. As is well known, it is of many the one efficient cause, and in the remainder it much aggravates the results of other influences. In treating, then,

of the cure of these affections, there will naturally stand first on the list of remedies such as have for their object the facilitation of the passage of the blood back to the central organ of the circulation,—the placing, in fact, of the leg in the same relative position to the heart as the arms or head naturally sustain. On the accomplishment of this object much surgical talent has been expended, and very various schemes have been proposed, many of which are still in use. The most thorough-going, and, at the same time, the simplest, is one which we observe in constant use at the Middlesex Hospital, where the patient is placed in bed with the affected limb elevated on an inclined plane high above the level of the recumbent body. In this position the healing of the ulcer often proceeds very quickly. There can be no doubt but that the part is thus placed in the most favourable circumstances possible, and that the plan possesses great advantages over simple confinement to the horizontal posture. In a very large majority of the cases of ulcer of the leg, however, such treatment is inapplicable, on account of the patients being obliged to continue up and about their ordinary avocations. Means, therefore, by which the end may be accomplished without restriction to bed are the most important, because most generally available. Among the out-patients at the London Hospital the plan of strapping the whole leg from the toes to the knee with inch-wide strips of plaster, and then applying over them a bandage as tight as can conveniently be borne, is carried out on a large scale, and with very great success. The additional expense and trouble involved in this plan appear to be much more than counterbalanced by the comparative speediness of the cure. Its certainty is so great, that Mr. Critchett informs us, that he is commonly able to state beforehand the time which any given sore will require to heal, and that failures almost never occur.(a)

Of the common plan of bandaging the leg we need say nothing here, as it is in almost universal employment. We must not, however, omit allusion to some methods frequently adopted in cases in which the superficial veins are much diseased, and which are especially intended to afford support to those vessels. Many of our readers will be familiar with the fact, that those who suffer from this disease, despite the alleged evil influence of local constriction, derive great benefit from regularly wearing strong elastic garters. At St. Bartholomew's, Mr. Wormald is accustomed to direct the application of a folded compress of lint over the trunk of the internal saphena, immediately below the knee, to be fixed with considerable tightness by means of a broad strip of sticking plaster. An artificial valve is thus constructed, and the superincumbent column of blood supported. The same object is gained yet more effectually by Mr. Startin's elastic spiral bandage, in frequent use at the Hospital for Diseases of the Skin. This bandage consists of a strip of vulcanised India rubber, half an inch broad and three yards long, terminating at one end in a large loop, and at the other by strings of tape. The loop is passed over the instep of the foot, and the bandage is then carried spirally round and round the leg as far as the knee, where it is fixed by means of the strings. The space allowed to intervene between the convolutions is usually from an inch to two inches, and the degree of tightness with which the bandage is applied varies, of course, according to the case. By its assistance, *elastic* support is afforded to the dilated vein at *many* parts of its course. The facilities which it affords for the dressing of the sore itself constitute one great recommendation, since there is no need to remove the bandage, but merely to stretch two of its coils and place beneath them the lint, etc., which is thus aptly retained in its place. In some cases of peculiarly irritable skin, it is, however, more convenient to apply a common calico roller lightly first, and the elastic band over it, or the latter may be put outside the patient's stocking.

The radical cure of varicose veins by obliteration is very commonly practised in some of the hospitals. We observe that Mr. Solly, and also Mr. Skey, usually employ for that purpose the potassa fusa so applied over the dilated trunk as to produce a small eschar. The only inconvenience which we have ever seen to result from it, has been the production of larger sloughs, and more extended inflammation than was wished for. Mr. Lloyd, Mr. Simon, and Mr. Lee, at the hospitals to which they are respectively attached, frequently practise the operation of passing a needle behind the trunk of the vein, and then twisting a ligature tightly over its projecting ends, so as to constrict the vessel, and induce its ultimate obliteration. By this method, the reputed risk of phlebitis, as a consequence of the ligature of veins, is said to be avoided.

However constant the influence which the dependent position of the leg exerts in inducing and keeping up sores on that part, it is yet very important to bear in mind that such ulcerations are essentially inflammatory, and to an extent varying with different cases amenable to the treatment of chronic inflammation. In proof of this, we might instance a very favourite plan of medication with some surgeons, by means of small doses of opium, or of opium combined with minute quantities of calomel: many of the ointments, lotions, and other applications in common use, from their discutient properties, afford additional evidence in the same direction. The employment of blisters is also another circumstance in support of the doctrine, and one respecting which we must here say a few words. Blisters may be applied usefully over the ulcerated *surface* of indolent sores, in order to arouse a new action—on the thickened *edges* of indolent sores, to remove the superficial layers, and to increase the vascularity of the indurated structure below; and, lastly, they may be applied at some *distance from the ulcer*, with view to simple derivative action. We remember watching a case, in which, under Mr. Lloyd's direction, a large blister had been applied to the calf of an old woman, to promote the healing of a very irritable and painful ulcer, just above the ankle. The latter circatrised with wonderful rapidity, and was well almost before that occasioned by the blister. The best mode of vesicating the edges of ulcers, is by the application of a blistering fluid, of which that prepared by Bulleyn is the one which we commonly see used. But by far the most conclusive evidence as to the inflammatory character of these ulcers which we could give, is derived from the results of the practice pursued at the Hospital for Diseases of the Skin, where, in most cases not complicated with extensively diseased veins, it is customary to put the patient under a continued course of the iodide of potassium, or biniodide of mercury; and, at the same time, to apply to the diseased surface itself, the following ointment (a):—

℞ Hydr. bisulphuret., hydrarg. nitrico-oxyd. aa. ʒss; creosoti ♏xx, adipis recentis ʒxvi. Misce.

We have been quite astonished in watching the ease with which many very extensive and severe ulcers have succumbed to these measures, whilst no further attention was being paid to the support of the part than by directing the patient to apply every morning a common calico roller made moist by immersion in hot water. It must be stated, however, that in very many of the cases at this hospital, the disease is conjoined with eruptions on the leg, as eczema impetigo, or ecthyma, upon which it often appears to depend. In this class of ulcers the above plan of treatment is, as will be seen, equally adapted for the removal both of cause and effect.

(a) For a valuable practical exposition of the details of this method of treatment, we must refer our readers to Mr. Critchett's work on the subject. It is very important that the plaster used should be of an unirritating character, and that it should be spread on unglazed calico. That employed at the London Hospital is made with the emplastrum plumbi, and appears admirably suited for the purpose.

THE ROYAL FREE HOSPITAL.

OBSTINATE ULCER ON THE LEG.—NEW MODE OF INDUCING CICATRISATION.

[Under the care of Mr. GAY.]

It must have occurred to most of our readers to see cases of old-standing ulcers on the leg which it has been easy to induce to cicatrise up to a certain point, but extremely difficult to get completely healed. Thus a sore of large dimensions may, under treatment, contract in the most favourable manner possible until it is reduced to the size of a shilling or a halfpenny, when it suddenly becomes most obstinately stationary. In an example of this kind, in which the ulcer had never been healed for twenty years, Mr. Gay has recently adopted, with complete success, the somewhat novel procedure which we are about to describe.

A seaman, named Edward Farrell, aged 36, was admitted, on January 10, 1853, with an irregular sore on the front and inner aspect of his right leg about the size of the palm of the hand. He stated, that it was twenty years since the ulcer first formed; that he had, in the meantime, been an inmate of nine different hospitals, and subjected, without success, to a great variety of treatment; that he had suffered so much inconvenience from pain, loss of time, etc., that, regarding the disease as incurable, he now applied in order to have the leg amputated. Mr. Gay advised him to defer resort to such a severe mode of cure until milder measures had again been tried; and ordered him to be confined to bed, with a lotion, composed of lot. plumbi and laudanum, applied to the diseased part. As his nights were rendered very restless by pain, a pill consisting of pil. sap. cum opio gr. v., was exhibited nightly four times in succession, after which it ceased to be necessary.

Under this treatment, the ulcer rapidly improved, and, by the middle of February, had become lessened to about the size of a half-crown. Cicatrization had thus far been accomplished, in part by the dragging in of the surrounding integument, but chiefly by

(a) Unguentum Rubrum. Hospital Pharmacopœia, p. 44.

the formation of new skin. During the next three weeks, no progress was made; the sore remained in precisely the same state; it was, however, painless, and the man appeared to be in very good health. He stated, that it was at this point that the healing process had, on previous occasions, been arrested. Mr. Gay called attention to the circumstance, that the healthy skin on each side the cicatrix was in a state of great tension, and apparently unable further to yield to the contracting power of the scar. To relieve this condition, he determined to try the effect of an incision through that part of the skin where the tension existed in the greatest degree.

On March 10th this was accordingly done. A longitudinal incision, about three inches long, and deep enough to include the fascia, was made on the inner side of the leg, two inches from the border of the cicatrix.

It was noticed, after the lapse of a few days, that, as if to confirm the propriety of the measure, the new wound gaped most at the part exactly opposite to the unhealed sore, and that the latter had already diminished in size.

April 1.—(Three weeks after the performance of the incision.) The original ulcer is now quite closed by a very sound-looking scar, and of the wound made by the knife there remains unhealed only a mere line of very healthy granulations, which will probably be skinned over in the course of a few days. It is remarkable that the healing of the latter has been partly by the formation of new cuticle, and partly by the approximation of its edges. A stage of contraction will soon no doubt ensue in this cicatrix, but as the traction exercised by it in so doing will be transferred to the back of the leg, where the skin is loose, it may fairly be hoped that the scar of the ulcer will escape injury. Mr. Gay observes, that it is only by thus altering the direction of traction, and transferring it to more healthy and movable parts, that any advantage can be expected from measures similar to the above. If the conditions under which the artificial sore is placed were precisely similar to those of the original one, it would then share with the latter in the improbability of the accomplishment of cicatrisation. But they are not. The incision is made at some distance from the diseased surface, and in healthy parts, yet unstretched, and easily permitting of considerable yielding.(a)

MANCHESTER ROYAL INFIRMARY.

BILATERAL OPERATION FOR STONE.

[Reported by Mr. THOMAS WINDSOR.]

Sept. 4, 1852.—Stephen Malony, admitted an in-patient of the Manchester Royal Infirmary, under the care of Mr. Jordan, with the ordinary symptoms of stone.

He comes from Wigan, is six years of age, and his father is a collier. He has lived principally on tea and vegetable food, seldom eating meat.

He seems healthy; is of the sanguine temperament, with auburn hair, hazel eyes, and delicate skin; his tongue is tolerably clean and moist; his appetite good; his pulse 128 and full; he does not sleep well.

24th.—Chloroform having been given, a grooved staff passed, and the hands and feet bound up as usual, Mr. Jordan commenced the operation by making a cresentic incision across the perinæum, through the skin, etc., so as to arrive behind the bulb: then opened the urethra, and made the section of the prostate, using the same knife throughout the operation. The forceps were then passed, and the stone easily extracted. The loss of blood was very trifling.

Nov. 10.—Since the operation, he has been constantly going on well. In seventeen days the urine ceased to flow through the wound. To-day he was discharged cured.

Remarks.—Celsus, in speaking about the extraction of calculi says, "Juxta annm, cutis plaga lunata, usque ad cervicem vesicæ, cornibus ad coxas spectantibus paululum." To this passage had been referred the origin of the lateral operation, the apparatus minor, etc. It was in vain that Davies, in 1734,—that Heister, Portal, Deschamps, etc., interpreted it otherwise; that Chaussier, Béclard, and Turck examined the question. It was not till 1824 that Dupuytren, studying the means of rendering lithotomy less dangerous, employed this method on the living being, and showed its importance at the Hôtel Dieu, that it really became a recognised operation. Since then few cases are recorded in this country. In the United States it seems to have been rather more employed. Its great advantages seem to be, that by it you arrive at the bladder by the shortest and safest line; the latter reason being always deserving of consideration, the former more especially in particular cases. It appears also better to use the knife alone than to employ the lithotome caché; it saves time, the hand of the surgeon is more accustomed to it, and it is an instrument always ready. For some years Mr. Jordan has constantly preferred this operation to the lateral, and his cases have justified his opinion.

(a) Our space does not permit of our entering fully into several interesting subjects for consideration suggested by the above case. We leave them the more willingly, as we understand that Mr. Gay intends shortly to read before the Medical Society a paper, in which they will be fully treated of.

UNREDUCED DISLOCATION OF THE PATELLA.

[Reported by Mr. THOMAS WINDSOR.]

Bridget Conolly was admitted a patient of the Infirmary, Jan, 25, 1853. She is 22 years of age; was born in Galway, Ireland, but has resided in Manchester about two years; she has been in service about nine years.

When she was about ten years old, one day playing with her companions, she sprang from a bank, and fell on both knees, but especially her right, which became much swollen almost directly. She was soon after seen by a surgeon, who did not, however, recognise the luxation till about nineteen weeks after, when the swelling had almost entirely disappeared. He seems then to have thought it the wisest plan to do nothing. Some seven weeks after the accident an abscess formed on the outer side of the knee, and two small pieces of bone came away. She gradually recovered considerable power over her knee, and has not found any extreme inconvenience, excepting when she has had much kneeling. Before the accident the knee was not bent inwards. She can now walk with tolerable ease, can flex the leg freely, but cannot quite extend it.

Present State.—The thigh and leg form an obtuse angle salient inwards; the internal condyle projects much inwards; then we feel a depression, the fossa intercondyloidea, then the patella, resting on the anterior surface of the external condyle. When the limb is extended, the patella may be moved laterally for some distance. The leg is about an inch and a half shorter than the opposite one, and rather smaller in circumference; the other limb is in a perfectly normal state.

Remarks.—So far as I have been able to ascertain, this is the first case of unreduced dislocation of the patella published; in fact, luxation of the patella must be much rarer than most imagine, for, even with their immense opportunities, Boyer and Cooper only observed each a single case; and Dupuytren saw but three. Liston, in his "Elements of Surgery," first edition, says:—"Luxation of the patella is spoken of by some as common. Others of much experience have not met with a single instance of it. I have never seen this accident;" and he makes a remark to the same effect in his second edition. Bransby Cooper, in his "Lectures on Surgery," however, mentions his having seen several examples of the dislocation outwards, and then remarks:—"But generally they have been the result of the action of the extensor muscles of the leg, from an unnatural direction of the knee inwards, and not from the application of any force immediately upon the bone itself."

The liability of the patella to dislocation varies according to its degree of flexion or extension. When there is much flexion, it is lodged in the groove between the two condyles, and projects but little; extension carries it upwards, and renders it very prominent. In the former case it is fixed, in the latter movable to some extent; in both cases its inner border is most prominent, being thicker than the outer side, and the corresponding condyle projecting less than the other one. Besides, the outer portion of the triceps femoris is thicker, longer, and stronger than the inner part. From all this we may conclude, that the more extended the knee, the more easily will the patella be dislocated, and generally outwards; probably, in our case, some small portions of the external condyle were separated from it, which would render the dislocation still more easy.

The principal points worthy of notice in this case are, that before the accident, the limb was in a perfectly normal condition, that now there is in-knee, that the limb is atrophied and shortened, that flexion to a considerable extent can easily be effected, that complete extension cannot be produced by muscular action, and the little inconvenience it appears to have caused her.

PLYMOUTH PAROCHIAL INFIRMARY.

EXTRAORDINARY CASE OF DELIRIUM TREMENS.

[Under the care of Mr. STEVENS.]

Peter Hammell, a native of Dundalk, aged 29, mariner, was admitted into the Infirmary on December 30th, 1852, in the following extraordinary condition, the result of an attack of delirium tremens, and gave the following history of himself:—Says, he has been at sea fifteen years, in the Merchant Service, and has

been in the habit of drinking freely for the last nine years, when in port, but never suffered from any disease during that period, with the exception of an attack of delirium tremens about two years ago, at Portland, when he attempted to cut his hand off, but was prevented. Was at Gibraltar in the early part of December, 1852, and drank freely of wine and spirits for a fortnight, when, an opportunity having presented itself, he entered as an able seaman on board the brig Rover, Commander Captain Stamp, and bound for Galway. When at sea about three days, became the subject of a severe attack of delirium tremens, with strong suicidal feelings, (from the belief that all the soldiers on the Rock, and some of his fellow-seamen, were trying to shoot him, or otherwise destroy him, by cutting him up into small pieces,) which increased to such a degree, that, while at the wheel, he suddenly sprang to the starboard quarter of the ship, and jumped overboard, but could not succeed in drowning himself, although he tried every means he could think of to effect his object for about half an hour, when he was picked up by a boat from the ship, and taken on board in an exhausted state, and removed to the forecastle, where, in about two hours from this time, and in the presence of his fellow-seamen, he commenced a most furious attack on himself by first cutting his throat, but, not succeeding in destroying life in this way, he stabbed himself in the epigastric region, supposing it was the situation of the heart. From this wound a substance protruded, but life was not extinct. He then most completely amputated the penis, after considerable jagging, as he termed it, with a blunt knife. This also not proving successful, he inflicted three or four wounds on the inner part of each thigh, of from three to four and five inches in length. In this locality he also stabbed himself in several places, and ultimately tried to cut his thumbs off, by making deep incisions in the muscular structures between them and the index fingers, and finished these horrible but unsuccessful attempts at self-destruction by making several more incisions on the backs of his hands, etc. This took place on the 21st of December; and, after exposure to the late gales, and a most boisterous voyage, the ship succeeded in reaching Plymouth; and, as soon as he could be landed, he was brought by the captain to the infirmary, nine days after the injuries inflicted, and was immediately admitted, when he presented the following appearances:—Countenance natural, but pale, and not expressive of much pain; pulse considerably increased in frequency, small, and rather wiry; had little or no sleep for two nights; bowels regular; appetite pretty good, but says he has generally rejected the food that had been given him on the voyage home; there was a suppurating and granulating wound in the throat to a considerable extent, which had divided the thyroid and cricoid cartilages, leaving the larynx open. From the wound in the epigastrium protruded a substance, (supposed to be omentum,) in a partially gangrenous state, of about three or four inches in length, and proportionate width. To this a ligature was applied; and the wound in the throat was brought together by interrupted sutures, and simple dressing applied, supported by adhesive straps. To the ulcerated surface of the amputated penis the same simple dressings were applied, and a gum-elastic catheter was passed into the bladder, and retained, to prevent contraction of the urethral orifice during the cicatrisation of the wound, a single sedative draught, on the first night of his admission, being the only medicine he took or had any occasion for during the healing of these extensive wounds and reparation of injured structures. The protrusion from the bowels was removed by the knife in a few days, in a complete state of sphacelus, and proved to be omentum. During this state of things he ate, drank, and slept remarkably well, and never required a single aperient dose of medicine; and, altogether, I think I may fairly venture to say, a more extraordinary case, or a more striking and interesting instance of recovery, under the *vis medicatrix naturæ*, assisted by art, has seldom been recorded, and more especially under a state of circumstances which must have been considered directly opposed to such a favourable result.

Remarks.—The circumstances of this extraordinary case which appear to me most deserving of notice are the following:—1st. The fact of his having felt no pain whatever in the infliction of these severe injuries, which can only be accounted for on the head of mental alienation and the excitement of delirium under which he was at the time labouring. A similar instance of the non-perception of pain occurred in this infirmary a short time since. The patient was an aged and insane person, from whose bladder, in a state of extreme hypertrophy and contraction, dropped a large calculus, of the triple phosphate variety, per urethram, a few days before her death, and who never complained of any pain in the region of the bladder during her confinement in the workhouse asylum, and whose appetite had always been remarkably good prior to the attack (dysentery) of which she died. Pardon this digression, and allow me to return to the case of Hammell. 2nd. The absence of severe hæmorrhage, so much to be dreaded in cases of delirium tremens, and the very slight constitutional disturbance arising from such complicated injuries, having only had a single sedative draught administered (the first night of his admission, in consequence of his want of sleep on the two previous nights) during the whole period requisite for his cure, viz., six weeks, when he intends returning to his friends in Dundalk, as well as ever he was in his life, minus the penis. 3rd. The providential interposition in favour of his life after such desperate efforts to effect self-destruction by the infliction of so many wounds, etc., in dangerous situations, one of those in the thigh having been made for some inches parallel to the course of the femoral artery, and another directly in the region of the stomach, (from which the omentum protruded,) and which could only have escaped in consequence of extreme emptiness.

SCIENTIFIC LECTURES.

HUNTERIAN LECTURES ON THE ANATOMY AND PHYSIOLOGY OF FISHES AND REPTILES.

By RICHARD OWEN, F.R.S.,
Hunterian Professor to the College.

This Day, April 16.—Lecture XII.—Arterial system and retia mirabilia in fishes. Air-bladder: its variable character, and modifications of structure; its vascular system, and the so-called "air-gland." Ductus pneumaticus. Chemical analysis of contents of air-bladders. Primary function of air-bladder in locomotion of fishes. Adaptation of gills and air-bladder of Lepidosiren to its sphere of existence. Homology and analogy of the air-bladder and duct. Renal system of fishes. Kidneys of dermopteri, of osseous fishes, and of plagiostomes. Urinary bladder. Relations of kidneys of fishes to the primordial kidneys of higher vertebrates and man.

Tuesday, April 19.—Lecture XIII.—Principal varieties of the male organs. Summary of modifications of the testis and sperm-duct, and their progressive complications with epididymis, vesiculæ seminales, penis, claspers, and marsupial pouches. Spermatozoa. Modifications of ovaria. Oviduct,—its progressive complications: ostium abdominale; fallopian, glandular and uterine divisions; parallel progress of male and female organs; external sexual characters. Ovarian ovum. Spawning and fecundation, natural and artificial; development of the embryo. External and internal yelks. Deciduous branchiæ of Plagiostomes. Oviparous, ovoviviparous, and viviparous fishes. Incubation in marsupial pouches and artificial nests.

Thursday, April 21, and Saturday, April 23.—Lectures XIV. and XV.—General Characters and Osteology of the Class Reptilia. Characters of the Orders:—1. Batrachia. 2. Ophidia. 3. Lacertia. 4. Chelonia. 5. Enaliosauria. 6. Pterosauria. 7. Crocodilia. 8. Dinosauria. Relations of the Osseous structure to the low temperature and inactive habits of Reptiles. Characters of the Vertebræ of the different orders of Reptiles. Modifications of Vertebral column in Batrachia, and conditions of the absence of true ribs in this order; in Ophidia, and accessory functions of their ribs explained; in Sauria; in Enaliosauria; in Crocodilia; and in Chelonia.

LIST OF SCIENTIFIC MEETINGS.

This Evening, April 16.—Royal Institution.—*Subject*:—"On Static Electricity." By Professor Faraday. Three o'Clock.

——— ——— Medical Society of London.—*Subject*:—"On Chronic Rheumatic Arthritis." By Mr. Canton. Eight o'Clock.

Monday, April 18.—Royal Institution.—*Subject*:—"On Organic Chemistry." By Dr. A. W. Hofmann. Four o'Clock.

Tuesday, April 19.—Royal Institution.—*Subject*:—"On Animal Physiology." By T. Wharton Jones, Esq., F.R.S. Three o'Clock.

——— ——— Pathological Society of London. *Meeting of Council.* Seven o'Clock.

Wednesday, April 20.—Royal Institution.—*Subject*:—"On Organic Chemistry." By Dr. A. W. Hofmann. Four o'Clock.

——— ——— Geological Society. Half-past Eight o'Clock.

Thursday, April 21.—Royal Institution.—*Subject*:—"On Technological Chemistry." By Dr. E. Frankland. Three o'Clock.

——— ——— Harveian Society. Eight o'Clock.

Friday, April 22.—Royal Institution.—*Subject*:—"On the Past and Present Condition of the Insane, and the Characters of Insanity." By John Conolly, M.D. Half-past Eight o'Clock.

Saturday, April 23.—Royal Institution.—*Subject*:—"On Static Electricity." By Professor Faraday. Three o'Clock.

——— ——— Medical Society of London.—*Subject*:—"On the Pathology and Treatment of Iritis." By H. Haynes Walton, Esq. Eight o'Clock.

The Metropolis Water Supply.—It appears that the bill of costs and expenses paid out of the civil contingencies of last year amounted to 5,319*l.* 13s. 5d. in promoting the Metropolis Water Supply Bill.

Medical Times & Gazette.

SATURDAY, APRIL 16.

THE PRESENT STATE OF THE MEDICAL REFORM QUESTION.

The Provincial Medical and Surgical Association having laid their proposed Medical Reform Bill before the Secretary of State for the Home Department; the Presidents, Censors, and Fellows of the College of Physicians having also presented *their* measure of Reform before the same high functionary; and various other deputations of a more private character having had the opportunity of explaining to the Government their wants and wishes in medical affairs generally; the time seems not inappropriate for explaining to our readers the whole state of the Medical Reform question as it at present stands.

We must express, as we have done on former occasions, our regret at the utter want of harmony and unanimity which is traceable among the different bodies which represent, or are supposed to represent, the Medical Profession; and we cannot wonder if the Ministers, perplexed by the conflicting views and the jarring interests of the various sections which compose the medical community, should throw up in despair the task of legislating for such a motley and discordant multitude.

Yet, after all, the question is simple enough: it is merely necessary, in the first place, to distinguish from the mass of society a class of persons trained by laborious industry and peculiar habits of study, who shall be thereby competent to attend upon the sick, and who shall, in consideration of their talents and their labours, be protected in the lawful exercise of their calling. Here, however, upon the very threshold of the question, we find, that the necessary conditions are not fulfilled, for the Government takes no trouble to distinguish the qualified medical attendant from the illiterate and unprincipled quack; and we have too often had to lament, that protection has been extended to the latter, to the manifest injury of the former.

Such being the apathy of the ruling powers of the State in all that concerns the study and practice of medicine, we might fairly hope that the corporate bodies at least, whose especial duty it is to watch over the interests of our Profession, would defend its members from wanton aggression and secure them in the enjoyment and the exercise of their lawful rights. But long experience has shown us that such a hope is vain, and the only connexion which exists between the Corporations and the Profession appears to be the demand of money on the one hand and its payment on the other, any further ties between each *Alma Mater* and her *alumni* being of a very feeble and imperfect nature.

Thus, in the communications which have taken place between the Medical Corporations and the Government we had little reason to hope that any broad views of medical policy would be laid down, or that any sympathy with the masses of the Profession would be felt or avowed. Nor have these misgivings been falsified by the results; for, although certain concessions have been asked, and some have been granted, to the respective corporations, we find that they all are devised for the benefit of professional oligarchies, while nothing at all has been proposed for the greatest good of the greatest number.

But as, in turning over the page of history, we find that the great charter of our liberties was wrested from the vacillating and perfidious John in the plains of Runnymede by the importunity of the British barons, who, in securing rights for themselves, obtained collaterally other valuable rights for the people; so are we in hopes that the movement now in agitation among the aristocracy of the Profession, may indirectly lead to the acquisition of additional power and privilege by the commonalty.

Our own views of medical affairs are latitudinarian. We conceive that class distinctions are wholly valueless; and that genius, talent, and industry are the only real claims to professional distinction. The time has passed away when the *prestige* of having studied in this or that College, or of belonging to this or that corporation, could confer upon a man any true distinction; and the public regard such matters with the same indifference as would be manifested to the bag-wig and the gold-headed cane, which were formerly the insignia of the physician. We need not, therefore, express our conviction of the utter uselessness of dividing members of the same body into members and fellows, and thus creating an artificial barrier between men who are perhaps quite equal in worth and attainments to each other.

But, whatever our own sentiments may be, we have not the power to alter circumstances and mould them to our views. We must, therefore, take things as we find them; and, if the Profession must be divided into classes, we must at any rate take care, as impartial journalists and as honest men, that the *tiers état* shall not be trampled upon by their aristocratic superiors.

The present state of the Medical Reform question, then, is briefly this: The College of Physicians seeks for the power of examining and licensing all persons practising as physicians in England and Wales. The College of Surgeons has already obtained from the Government the power of creating an arbitrary distinction between its fellows and its members; this distinction being obtainable partly by interest, partly by talent, partly by seniority, and partly by pecuniary payments.

It is hardly necessary to observe, that the College of Physicians makes no pretension to legislate for the General Practitioners, and its portals are to be open only to those who practise as pure physicians. To this line of conduct, on the part of the authorities in Pall Mall, we offer no objection, and we even applaud the College for the consistency with which it has adhered to its principles, through evil report and through good report, at a very heavy pecuniary sacrifice.

But we cannot, on any principle, applaud the conduct of the College of Surgeons; we conceive that this Institution has been inconsistent in every respect, except in its rapacity for money, and in its resolute determination to uphold some handful of London Surgeons, at the expense and to the great disparagement of the great body of English Practitioners.

The General Practitioners, ignored altogether by the College of Physicians, wheedled out of their money, and then repudiated by the College of Surgeons, are taken in hand by the Provincial Medical and Surgical Association, which, regardless of the interests of its supporters, sacrifices its professional brethren upon the altar of expediency. Instead of seizing the opportunity of establishing a magnificent combination of General Practitioners, relying upon their own strength, and acting, not in a spirit of mean and unworthy rivalry, but in one of zealous and honourable competition with the physicians and pure surgeons, the leaders of the Association would entrust the

masses of the Profession to the College of Physicians, by which they have been consistently neglected, and to the College of Surgeons, by which they have been repeatedly betrayed. Why, we would ask, do not the members of this Association meet in the different districts, and discuss the merits of the proposed measure? As yet, we have heard of no public meetings whatever upon the subject; and it would really appear as if an attempt were made in some quarters to stifle discussion, instead of inviting it.

We do not pursue this part of the subject further at present, because, as we hinted last week, the provisions of the Bill are still open to discussion; and we hope, ere long, to see the introduction of some very important modifications, which may render it generally acceptable to the Profession.

LORD LYTTELTON'S VACCINATION BILL.

We have seen with considerable surprise that a Bill(a) for making vaccination compulsory, has passed a third reading in the House of Lords. Our first inquiry, when we received this information, was, whether the Profession had been consulted upon the subject; but we cannot ascertain that any medical opinion had ever been asked; and it is therefore probable that a measure affecting very deeply the interests of the medical public, as well as the public in general, might have passed the Legislature without any information having been afforded to the parties most deeply concerned, had not the Epidemiological Society and the Medical Press taken the alarm, and remonstrated against the impropriety of hastily legislating upon so important a subject.

During the progress of Lord Lyttelton's Bill, that nobleman has, we understand, been in communication with a Committee of the Epidemiological Society, and has derived, we doubt not, considerable information from that source; but still we may be permitted to doubt, whether this Society is fairly to be considered as representing the Medical Profession of England and Wales, and whether much practical knowledge might not have been gained from many gentlemen who have devoted their lives to the consideration of the vaccination question in all its bearings; we might allude, for instance, to such authorities as Mr. Ceely, of Aylesbury, Mr. Hingeston, of Brighton, and many others whose names might be mentioned. We may suggest, that gentlemen so well informed on the subject should, at any rate, be examined in Committee before the final passing of the Bill.

We may at once state our opinion, that compulsory vaccination, without a complete revision of the laws at present existing upon the subject, would be attended with more harm than good; and we may state, further, that the outrageous attempt to impose more onerous and harassing duties upon the medical practitioner, while the same miserable and paltry rate of remuneration is continued, ought to meet with the strongest opposition.

At present, as is well known, the appointment of vaccinators, and the terms of their remuneration, are left to the discretion of the Boards of Guardians in the different unions; and we need hardly state, that such tribunals are in general wholly incompetent to judge of the manner in which the provisions of the Vaccination Act are, or ought to be, carried out; while the known parsimony of those Boards in all that concerns medical remuneration renders them justly odious to the Profession. At present, the duties of the vaccinator are onerous enough: he has to vaccinate all who come to him for that purpose; and, if the operation be unsuccessful, he must vaccinate again and again until he obtains a satisfactory result; he has to give a certificate to the parents of the child, and he must visit the child on several occasions, to ascertain the progress of the disease; he must then enter all the cases in a book provided for the purpose, and make periodical returns of the number of persons vaccinated, their ages, residences, the state of their health, and other particulars. For all this duty, the remuneration is usually—for *each successful case*, one shilling and sixpence, the sum, however, being sometimes reduced to one shilling, and, for anything we know to the contrary, some Boards of Guardians may offer a still lower amount.

Now, as if the duties to be performed for this munificent remuneration were not sufficiently onerous, we find that the Bill of Lord Lyttelton makes them still more vexatious. Besides being obliged to give a number of extra certificates concerning the state of the child's health, when it may be too ill to bear the operation, we observe that the vaccinator is also to be compelled to attend gratuitously every child which may become sick or indisposed during the course of the vaccination. It is true, that the words of the Act state that the sickness or indisposition must be *the consequence* of the vaccination to entitle it to gratuitous attendance; but who is to distinguish the *post hoc* from the *propter hoc?* The question will, of course, be left to the parents of the child, and thus an enormous amount of additional labour will be imposed upon the Profession. We are drawing only from the records of our own experience, and we are sure that we shall be confirmed by numerous authorities in support of our assertion, when we state that vaccination, although itself a perfectly harmless disease, often provokes, in children which are predisposed, an attack of some other cutaneous eruption, particularly at periods like the present, when boils and other inflammations of the skin are epidemic maladies. Thus, what with diseases which may legitimately spring from the vaccination, although from no fault of the operator, and what with a host of other infantile diseases which have no earthly connexion with it except in the imagination of ignorant parents or friends, the unfortunate vaccinator will have abundance of work under the new Bill of Lord Lyttelton.

But the subject is by no means exhausted; there are other points of view in which the measure is equally objectionable; and, as we believe that Lord Lyttelton has consented to postpone his Bill for a time, in order to ascertain the opinions of the Profession, a fair opportunity will be offered to discuss its provisions; and our columns will be open to the communications of our professional friends upon this matter, which is so important to their interests.

(a) Printed at page 111 of our present Number.

DR. BABINGTON ON THE TESTIMONAL SYSTEM.

In another column will be found a letter from the respected President of the Epidemiological and Pathological Societies, concerning the article by ourselves on the testimonial system.

The President and Censors of the Royal College of Physicians, appointed according to law for the purpose, examine a candidate, and finding him well versed in the science of Medicine, grant him a diploma to practise his Profession. Dr. Babington having been examined by the President and Censors of the said College as to his knowledge of Medicine, and being *physician* to a large hospital, gives a certificate to a tradesman, testifying to the great utility of a certain surgical instrument, called a truss. To this certificate he appends his private address; and the one and the other—the testimonial and the address—are, with Dr. Babington's

approval, printed on a handbill, and circulated by the tradesman through the post. Dr. Babington can see no difference in principle between the granting of a licence by the President of the Royal College to himself, and the giving a testimonial to this tradesman by himself.

The bishop of a diocese grants to a clergyman letters "testimonial;"—Dr. Babington writes a "testimonial," certifying to the virtues of a nostrum called Warburg's Tincture, and he is unable to see any difference in principle between the granting of the former and the donation of the latter! Mrs. Nickleby could not be made to comprehend that there was no necessary similarity between babies and butter, seeing that both are remarkably soft, and both begin with a *b*. Had Dr. Babington been one of the fair sex, he might possibly have been suspected of having sat as the model for that celebrated picture. Dr. Babington considers himself justified in giving any one tradesman or quack a testimonial, provided only, that on the face of the said testimonial there be nothing, but what is strictly true,—that is to say, he does not hold himself bound to consider the *uses* to which his testimonials may be applied. The tenor of his letter would lead one to suppose, that if the respective proprietors of Old Parr's pills, Holloway's pills, and Morrison's pills, were to apply to Dr. Babington, they might procure a testimonial, certifying the particular virtues the said pills possessed. We can *imagine* a testimonial running thus:—

"——— street.

"I have examined the chemical constitution of Old Puff's pills, and can state, that they contain no mineral substance; while, as a mild aperient, they act agreeably."

In giving such a testimonial, a physician would only state what might be perfectly true, and he would, according to Dr. Babington's account, be acting on the same principle on which the Royal Colleges of Physicians and Surgeons act, when they grant diplomas to candidates for entrance into the Profession.

Falsehoods might be told concerning the pills by other persons,—the physician would have written only the truth. The proprietor might declare that his pills possessed all the virtues of all the drugs under heaven, and a few more, and the innocent public might read in the newspapers and on area bills this advertisement,—

"Old Puff's pills may be taken in any quantity without injury to the most delicate stomach. They are 'perfect specifics in female complaints,' 'an unfailing cure in gout,' 'of miraculous power in the treatment of neuralgia,' etc., etc. Testimonials from that eminent Physician to ——— Hospital, Dr. Dash, F.R.C.P., etc., etc., may be seen at the College of Health."

And then Betty the cook, and Sally the housemaid, who read the circulars that fall into the area, and the Duchess who peruses the newspaper in her boudoir, suffering as all women do in this *speculating* age from "female complaints," would, upon the strength of the pills having been testified to by the "eminent physician to ——— Hospital," swallow the aloes and gamboge by the teaspoonful, and one or more of them might die of mueo-enteritis. To the ladies' ghosts the physician would say, on the "principle" of the worthy thane of Cawdor:—

> "Thou can'st not say I did it: never shake
> Thy gory locks at me."

The "eminent physician" would have written the truth, the proprietor have published a lie; but then the unfortunate public would have believed the latter, because it was adulterated with the former; and so old Puff's brass gilded by the physician's gold would gain a circulation, which, without the latter, it could never have attained.

"I tell the truth only," writes Dr. Babington; "it is the false testimonial which does harm."

With all deference to Dr. Babington, we assure him, that our remarks do not apply to false testimonials alone, as he asserts they do; they apply to *all* testimonials given to the proprietors of nostrums.

Note.—The following note was appended to our former article:—

"We select the above testimonials because the characters of the donors stand so high that no suspicion of being animated by unworthy motives can attach to them; they evidently have been unwittingly trapped."

And it expresses clearly the principle by which we were guided in the selection of the Professional testimonials we then published. Our respect for Dr. Babington personally is, we assure him, profound; we do not even suspect him of being animated by any unworthy motive, and we regret, therefore, that, instead of exclaiming, in the privacy of his study, 'Peccavi!' he has written to us the illogical letter we publish to day.

REVIEWS.

The British and Foreign Medico-Chirurgical Review, or Quarterly Journal of Practical Medicine and Surgery. Vol. XI. P. 580. London: Highley and Son.

Two numbers of this ably-conducted Journal are before us, constituting the first volume for the present year. The Profession have now, therefore, a fair specimen of what they are to expect from the *British and Foreign*, while under the management of its present accomplished Editor. With the first of these two numbers commenced a new era in medical literature—medical reviews, with the names of the writers appended, were, indeed, novelties in this country; and many were the doubts expressed as to the expediency, nay, the possibility of carrying out the proposed scheme. The new editor, confident in his own resources, and supported as he was by the warm approval of his plan by some of the most able writers of the day, made the trial, and, we do not hesitate to say, has completely succeeded. He has shown, that it is possible to get men of the highest scientific position to append their names to critical reviews; that reviews need, as a rule, lose nothing of the justness of their criticism by being signed; while the scientific value of papers to which the names of Mackenzie, Wharton Jones, and Fleetwood Churchill, are affixed, is incalculably higher than could be that of any anonymous reviews. Another point of great interest in the present volume is the introduction of original articles and of translations of papers of high scientific interest.

The Chronicle of Medical Science bids fair to be one of the most valuable parts of the present series. The part headed Therapeutical Record will be found particularly useful to those engaged in large practice. Here, under the name of special diseases, are placed all the remedies that have been proposed during the preceding three months for the treatment of those diseases. Thus:

"*Diabetes Mellitus.*—Dr. Hanekroth (*Schmidt's Jahrb*, 1853, p. 173) recommends a mixture of sulphate of iron ʒiss. tinct. cinchon., aq. menth. aa ʒvi., twenty to thirty drops every two hours. In two cases there was perfect recovery."

"Mr. Sampson (*Lancet*, Jan. 8) states, that the permanganate of potash (grs. ij. to v. in solution, thrice daily) has a marked effect in reducing the quantity of urine in cases of obstinate dyspepsia and in diabetes mellitus. In a case of the latter disease, the quantity of urine fell from ten to twelve pints to its normal amount, but still contained sugar."

"*Diarrhœa.*—Mr. North, (*Medical Times and Gazette*, Feb. 12), in noticing the employment of *dilute sulphuric acid* (in ʒss. doses every two or three hours), states, that it is in the serous forms, especially when attended with cramps, that it is most useful."

The value of such an abstract to those whose time is much occupied is incalculable. The remaining parts of the Chronicle are, "Annals of Micrology," by Dr. Lyons, of

Dublin, in which are recorded all the important additions to our microscopical knowledge made during the past year; and abstracts of papers in the British and foreign journals, on Anatomy, Physiology, Organic Chemistry, Materia Medica, Medicine, and Surgery.

The following are the original communications that have appeared in the present volume:—

"On Certain Elastic Structures Connected with the Deep Flexor Tendons of the Fingers and Toes." By John Marshall, F.R.C.S. A very able paper.

"On the Function of the Muscles of the Tympanum in the Human Ear." By Joseph Toynbee, F.R.S., F.R.C.S.

"On the Specific Gravity of the Brain." By W. H. O. Sankey, M.D." This is a most able and philosophical paper. The following is the conclusion arrived at by Dr. Sankey:—

"It would then appear, that when the density of the grey matter is greatly above the mean, disease in some part of the cerebrum is always present; but that there may be a density of the same tissue considerably below the mean without cerebral symptoms. While, on the other hand, a decidedly high or low density of the white matter seems to be always connected with obvious disease of the brain."

Dr. Parkes has communicated two papers, one very valuable one, "On the Action of Liquor Potassæ on the Urine in Health," and a shorter, but interesting one, "On the Elimination of Lead by Iodide of Potassium." The conclusions at which Dr. Parkes arrives as to the action of liquor potassæ in health are:—

"1st. That, if taken soon after meals, its action is simply antacid. 2nd. That, if taken when the stomach is empty, in from thirty to ninety minutes there is an increased flow of slightly acid urine, which contains the whole of the potash, organic matter,—differing considerably from that of ordinary urine,—and a relatively large proportion of sulphuric acid; the phosphoric acid and the chlorine are less changed. Perhaps an organic acid (not uric, and probably not hippuric,) is also present."

No such effects follow the administration of nitrate and acetate of potash.

In a subsequent Paper, Dr. Parkes is to give an account of his researches on the action of liquor potassæ on the diseased system. Some very useful papers by Dr. T. K. Chambers, entitled, "Decenium Pathologicum," appeared in our Journal last year; the Second Part of these Papers has now appeared in the form of an original communication in the Work before us. In a Paper on the Mortality arising from the Use of the Forceps in Tedious Labours, Dr. G. Hamilton, of Falkirk, recommends strongly what, on this side the Tweed, is termed "meddlesome midwifery."

Dr. Sieveking communicates a Paper On the Seat of Pulmonary Tubercle. His observations tend to confirm the opinion of those Pathologists who hold that pulmonary tubercles are contained within the air-cells. We cannot say, however, that his observations carry conviction to our mind.

The tone of the reviews, the names of the reviewers, the first-class characters of the original communications, and the care displayed in the compilation of the Chronicle of Medical Science, cannot fail to secure for the *British and Foreign Medico-Chirurgical Review*, while in the hands of its present Editor, a wide circulation, and a very high position as a practical and scientific journal.

The Practical and Descriptive Anatomy of the Human Body. By Thomas H. Ledwich and Edward Ledwich, Lecturers on Human and Comparative Anatomy in the Original School of Medicine, Dublin. Dublin: Fannin and Co. London: Longman and Co. Edinburgh: Maclachlan, Stewart, and Co. Pp. 922. 1852.

We have become so habituated to the perusal of works on Anatomy, profusely illustrated by engravings, that a work which is destitute of such attractions appears dry and unsatisfactory. This is, in some measure, the case with the present work; the "rivulet of text runs through the meadow of margin," as Sheridan says, without any of those pictorial delineations which refresh the eyes of the reader, and which, in the case of anatomy, certainly serve to render the descriptions more intelligible. The Messrs. Ledwich pursue the old beaten track in the arrangement of their subject; the bones are described first, and then, in succession, the ligaments, the muscles, the cavities of the body, the nerves, and, lastly, the arteries, veins, and absorbents.

All these parts are described fairly enough, as far as the mere anatomy goes; but we look in vain for any philosophical generalisations on living structures, or for any views of general anatomy or histology; and, on the whole, the work is decidedly inferior to many other works on the same subject which are now in the hands of students.

A Dictionary of Medical Science. By Robley Dunglison, M.D., LL.D., Professor of the Institutes of Medicine in Jefferson Medical College, Philadelphia. Ninth Edition, Revised. London: Sampson, Low, Son, and Co. 1853.

The fact that this excellent and learned work has passed through eight editions, and that a ninth is rendered necessary by the demands of the public, affords sufficient evidence of the general appreciation of Dr. Dunglison's labours by the Medical Profession in England and America. It is a book which will be found of great service to the student, in teaching him the meaning of all the technical terms used in medicine, and will be of no less use to the practitioner who desires to keep himself on a level with the advance of Medical Science.

Hysterical and Nervous Affections of Women. By William John Anderson, F.R.C.S. Pp. 39. London: Churchill. 1853.

This is a very common-place monograph on hysteria, which hardly required to be put in the form of a book. It is distinguished neither by profundity of knowledge, extent of experience, nor felicity of illustration. In the form of a paper read before the Harveian Society, where it first appeared, it might be regarded as an inoffensive production, as, without possessing any peculiar merits, it is free from any serious defects, and might serve very well the temporary purpose for which it was originally designed.

PROGRESS OF MEDICAL SCIENCE.

SELECTIONS FROM FOREIGN JOURNALS.

ON THE USE OF CREOSOTE IN DISEASES OF THE MUCOUS MEMBRANES, AND IN DISCHARGES OF BLOOD.

By Dr. ARENDT.

The author points out the different affections of mucous membranes, in which striking benefit ensued from the administration of creosote. In ophthalmia chronica varicosa, in conjunctivitis with ulcers of the cornea, in opacities of the cornea, he directed a solution to be dropped daily into the eye, (one or two drops to the ounce of water.) He quieted cardial pains with two drops in eau sucré. In fluxus cœliacus, the discharge disappeared after repeated injections, (twenty-five drops to two pints of water.) Leucorrhœa ceased within a week after injections twice or thrice a day, (two drops to one ounce of water.) A similar injection was used with effect in catarrh of the bladder. A secondary post-puerperal discharge from the uterus he cured with an injection, (two drops to five ounces of water, to be used every two hours.) A good result also ensued in two cases of metrorrhagia connected with placenta prævia. In bloody discharges from the uterus of non-pregnant women, and in cases where it did not depend on the period of childbearing or its after consequences, the injection of a solution of creosote was beneficial, but not always practicable, on account of the oblique position of the uterus, the presence of polypi, etc. Sometimes the source of the bloody discharge is beyond reach, as when it comes from the ovaries or the Fallopian tubes. In external hæmorrhages the author found the remedy extremely useful, (ten to twenty drops to the ounce of water.)—*Med. Ztg. Rupl.*, 42, 43. 1852.

PHOSPHATE OF LIME IN OXALURIA.

By Dr. KUCHENMEISTER.

The author suffered for four years from chronic diarrhœa, and other disorders of the digestive organs, accompanied with marked emaciation and hypochondriasis. The urine was acid, and very rich in crystals of oxalate of lime; specific gravity, 1·5—5·0. There was no apparent cause for the symptoms. Upon Beneke's advice, the author took daily lactate of iron, gr. ss.; phosphate of lime, grs. ii.—iii.; car-

bonate of lime, grs. iv.—vi. After eighty powders, the evacuations became regular, the appetite and the general aspect improved, the oxalic crystals disappeared, and the specific gravity became 2·0—2·5.

ARSENIC IN ST. VITUS'S DANCE.

By Dr. HASBACH.

The author relates a case of acute chorea, which, after the ineffectual employment of anthelmintics and antispasmodics, yielded to Fowler's solution of arsenic in the course of six weeks, (at first four drops three times a day, then four or five drops.)

UPON THE HISTORY OF THE DEVELOPMENT OF THE SO-CALLED SPONTANEOUS AMPUTATIONS.

By HAERDTL.

In the Foundling Hospital, at Vienna, a three-days-old infant was received, in which there was the following condition of the left upper extremity:—The forearm measured one inch and six lines from the elbow; both bones were present; they were moveable upon one another, and terminated by rounded extremities in the soft parts; the ulna was rather longer than the radius. The soft parts ended in a round stump, covered by integument, which, however, presented a small cicatrix over the point of the ulna.

To the inner side of this, and attached to the stump, was a hemispherical mass, of about three lines diameter, from which sprang five soft, roundish tubercles. There was no trace of a carpus.

Bischoff considers, that both arrest of development and mechanical constriction may be the causes of these malformations; the one does not exclude the other. He distinguishes, further, arrest of development (Bildungshemmung) from the growth of imperfectly-formed parts (Hemmungsbildung). In the one, there is a complete arrest at a particular stage of embryonic existence; in the other, the development goes on from a certain point, not according to the proper type, but more or less in accordance with the known forms of the lower vertebrata.

Montgomery, Simonart, and others, imagine, that in these cases there is amputation of the limb from some constricting cause during intra-uterine life. Chaussier and Richeraud refer the accident to mortification.

The author thinks, that where there is the absence of the entire limb, or the complete loss of even a part, the influence of the imagination is not to be received as an explanation; and that further inquiries into the laws of development are required. Spontaneous amputation can be assigned as a cause only when there remains a trace of the separated parts, and the constricting band can be pointed out. A limb may be tightly girded, and thus its growth may be prevented; but here further inquiries are requisite; and the term "arrest of development" expresses but insufficiently the influence of the constricting band upon the growing tissues.—*Wien. Zeitsch.*, VIII., 11. 1852.

OBSERVATIONS UPON THE BODY OF A PERSON BEHEADED.

By HENLE.

The body of a young man beheaded at Mannheim was examined fifteen minutes after execution. The right auricle was in full rhythmical contraction, (60 to 70 beats in the minute.) The right ventricle exhibited feeble and superficial, but synchronous contractions of its muscular structure; the left side of the heart was still Upon galvanising the left N. Vagus, with the rotation apparatus, (rotations apparat,) the right auricle became fixed in its extended state without previous alteration of its contractions, but it regained, after the removal of the wire, (which was applied for a minute,) in a few seconds, its former regularity of beat. A repetition of the experiment was followed by the same result. As in twenty-five minutes after execution the right auricle became still, galvanisation was employed upon the left sympathetic nerve, when suddenly rhythmical contractions returned. They occurred also spontaneously after long pauses.

Upon the application of the same apparatus to the spleen thirty-five minutes after death, no contractions were excited, —the surface remained smooth and without wrinkles. In the gall bladder contractions were excited by the application of the wire forty minutes after death; there were none, however, in the excretory duct of the liver; in the thoracic duct they were very evident and strong an hour and a half after decapitation. The veins re-acted against galvanism, even the portal vein and the vena cava inferior; but not so the aorta.

An hour after death, the lining membrane of the trachea and bronchus, with a branch of the latter, were sprinkled with powdered carbon. In fifteen seconds, the powder was carried the breadth of one of the cartilaginous rings by ciliary movement against gravitation towards the larynx. On the nasal mucous membrane this experiment did not succeed, although the ciliary movement was seen under the microscope. The walls of the cerebral ventricles exhibited no ciliary movement, nor could the author discover any epithelium in these cavities, in opposition to the opinions of most writers. The membrane was smooth, transparent, and fibrous somewhat, apparently from the folding of the structure. The œsophagus, separated from the pharynx, exhibited quickly-repeated peristaltic contractions. Also the intercostal muscles acted in regular intervals of a quarter to half a minute, and so strongly as to alter the aspect of the costal cartilages.

There was also an accurate microscopical investigation of the eye and the stomach. The yellow spot was visible, but there was no trace of a plica centralis. The retina was transparent enough to permit to be seen the pigment and the great vessels of the choroid, somewhat obscured by a grey opacity, lightest in the middle of the yellow spot. Jacobson's membrane corresponded with the observations of recent microscopists. The colour of the yellow spot was diffused; and the peculiar rod-shaped bodies of Jacobson were here absent. The author could not distinguish either corpuscle or fibres in the fresh retina; it appeared a finely-granular mass. After twenty-four hours, a fatty structure separated in a continuous layer, and then it was seen that the nerve ganglia lay in the meshes of the vascular layer, different as to order from what Kölliker and Müller have described. There was no epithelium upon the front of the iris or capsule of the lens; but there was a polygonal epithelial covering between the capsule and the front of the lens. No liquor Morgagni.

The mucous membrane of the stomach was wrinkled; generally of pale rose hue, but of dark grey at the fundus. There was no cylindrical epithelium. The author concluded with a minute account of the shape and size of the gastric glands.—*H. und Pf. Ztschr.*, 1853.

PROVINCIAL CORRESPONDENCE.

SCOTLAND.

DOINGS IN THE NORTH.

Edinburgh, April 7, 1853.

In the spacious saloon in which the meetings of the Medico-Chirurgical Society are held, were assembled on Wednesday evening a crowded audience, to hear the promised paper of Professor Millar.

What potent spell had charmed so many to leave their quiet retreats? Was it not akin to that which animates the faces grouped around the cock-pit in Hogarth's celebrated pictures? And apart altogether from the temporary excitement and transient amusement which a *duello* of the nature anticipated must always present, was it not rather a painful spectacle for those who are jealous for the dignity of our Profession? The place of Professor Syme was vacant; and though, to some, his absence might be a disappointment, yet even they must have approved of his non-appearance, which was highly commended by the older and cooler spirits of the Profession.

Professor Millar read his promised paper with a great appearance of calmness and candour, and a studied—much too studied—absence of all rancorous feeling; yet the cloven foot ever and anon peeped out in sly hits and inuendoes, often almost unnoticed, and generally only understood by those who are somewhat behind the scenes in matters of surgical practice. In his paper he traversed nearly the same ground as Professor Syme had done at the previous meeting,—afforded a fair opportunity for contrasting the singular differences presented in the mental characteristics of these two able men.

Mr. Syme was listened to with breathless attention. The thoroughly practical character of his paper, the terseness of his style, the simplicity of his language, and the vigour and precision of his ideas, alike aroused attention and gained con-

fidence. You saw before you a man singularly unfitted by nature for any oratorical display, commanding the attention of a large and enlightened auditory, solely by his vast experience and his practical sagacity—his singleness of aim and honesty of purpose. With him, words were merely instruments, and nothing more. His paper had a purpose; and if self was not forgotten, it was at least nowhere prominently and offensively obtruded.

Mr. Millar, on the other hand, had embellished his paper with all the graces of rhetoric, and delivered it with considerable oratorical display. With him, words and expressions were more effective than facts. He was more at home in the vocabulary than in the practice of his Profession; and palpably showed that he was no mean graduate in the school of Talleyrand, and had learned the science of concealing thought by language. If his paper gave more pleasure than Mr. Syme's, it was pleasure of a very different kind; in the latter, the purity of the jewel attracted and absorbed all attention; in the former, the jewel was overlooked from the brilliancy of the setting in which it was arranged.

After the manner in which Mr. Millar challenged the paper of Mr. Syme, it was strange to observe how very little he found to add to the facts recorded in it. Staphyloraphy, by Professor Ferguson—Spermatorrhœa—Restoration of the Upper Lip—and the Treatment of Aneurism by Compression, were the principal additions; and the general feeling seemed to be, that if these were all Mr. Syme's omissions, the Society could well have spared the severe remarks of Professor Millar at their last meeting, with all the distressing personalities which thence originated.

But, although Mr. Syme was absent, Mr. Millar was not permitted to escape. Two surgeons, both young, but both full of promise, and neither given to excite the jealousy of Surgery by dallying with her sister, Medicine, entered the lists against him. Mr. Spence and Dr. Mackenzie chiefly confined their remarks to the subject of the treatment of aneurism by compression. In a most boastful spirit, and with some expressions which, after all, were intended more as oratorical flourishes than anything else, Mr. Millar had come forward as the champion of the Dublin School, and had sought to take some credit for liberality for so doing. This was all well enough; but when he wound up by saying, that the man who, after this, should apply a ligature to the artery, without first trying compression, would be guilty of serious moral delinquency, it was generally felt that, even for stage effect, or pulpit declamation, the expression was somewhat too strong.

Mr. Spence first took the matter up, and showed that the Professor was only superficially acquainted with the history of the operation; while Dr. Mackenzie, who had in some way informed himself of the history of those cases where the Professor's treatment by compression had been singularly unsuccessful, somewhat pertinently asked him, if this was the experience on which he founded his right so strongly to recommend it, and boldly challenged him to state, whether he had treated any case in this way except the three referred to.

Most men would have been rather pushed into a corner by this *argumentum ad hominem*; not so Professor Millar. Never did his peculiar talents shine more conspicuously than at this moment, —somewhat trying, doubtless, to a teacher of surgery. We know not whether Messrs. Spence and Mackenzie ever tried eel-catching in their youth; if so, they had done well to have adopted some of the precautions usually taken to secure these slippery gentry, for, at the very moment when they must have felt most confident of a complete and triumphant capture, he slipped through their too eager fingers, and, with a flourish and splash, and the disturbance of not a little mud, he contrived to mystify the whole matter, and converted a signal defeat into the appearance of a victory, to the no small delectation of a band of students in the back seats, who, like the hired cheerers at a hustings display, did the best to applaud their favourite.

By the way, if these exhibitions among our Professors are to be continued, we sincerely trust that the students will not in future be admitted as spectators. Their presence only serves to encourage a style of debate not favourable to the calm discussion of a scientific subject, and we question if the exhibitions which they occasionally witness are calculated to heighten their respect for the occupants of professorial chairs, whom it is well that they should regard as practical synopses of all wisdom, at least until their graduation is over. The delusion will be soon enough dispelled thereafter.

Such is an epitome of the main plot of the evening's drama; there were not, however, wanting bye-plays, amusing and characteristic. For example, a discussion between the President, Professor Simpson, and Professor Millar, as to the statement made by the latter at the previous meeting, that the paper of Professor Syme was just a recapitulation of his own surgical improvements previously enumerated in his life, published in the *Lancet*. Professor Simpson attempted to show, that this accusation was equally unjust and ungenerous; but Professor Millar refused to retract it. The truth appears to be, that your Contemporary, in the life of Mr. Syme, enumerated, not what he had done for surgery, but what he had written about surgery. Now he has, in his position as a teacher, illustrated every possible surgical subject, so that in giving his enumeration of its improvements in the last thirty years, it was essential that a coincidence should take place between what he had previously written and what he then recorded. The general impression seemed to be, that, after all, his history was a fair one, an impression much confirmed by the small amount of additional matter which Mr. Millar succeeded in producing.

The second interlude was the interposition of the Nestor of the Society, who proceeded soundly to rate Professor Syme (though he thought Professor Millar excusable, as being provoked) for reading a paper of this kind before the Medico-Chirurgical Society.

How long he might have gone on in this strain it is impossible to say, had not Professor Simpson, as chairman, interposed, and administered to him a quietus, more powerful than chloroform, under the influence of which he instantaneously succumbed.

Though we have styled Dr. W. T. Gairdner the Nestor of the Society, you must not be deceived in supposing him a very old man: with him the wisdom and gravity, and self-possession, and *conscious* superiority which age and vast experience usually confer, are innate qualities; and the only way we can account for his singularity in this respect, is by admitting the doctrine of Metempsychosis, and believing that the soul of this graduate of 1845, formerly animated the body of some hoary sage in the profession, or, perhaps, even of the elderly gentleman whom Virgil so eloquently depicts—

> "Ac, veluti magno in populo cum sæpe coorta est
> Seditio, sævitque animis ignobile vulgus;
> Jamque faces, et saxa volant; furor arma ministrat;
> Tum pietate gravem ac meritis si forte virum quem
> Conspexere, silent; arrectisque auribus adstant."

I am not sure that you will get many of your Edinburgh readers to agree with you in your regret, that Professor Simpson has devoted his vast talents to the refutation of Homœopathy. The circumstances which led him to take up the subject are highly creditable to him. At a time when a strong feeling was expressed, that the practitioners of Homœopathy should be expelled from the Medico-Chirurgical Society, the difficulty was, in the then state of popular feeling, to find any one bold enough, or independent enough, to undertake the task, in the face of the calumny and blackguardism which was sure, from the character of the homœopaths, to be heaped upon them. To the honour of Professors Syme and Simpson be it recorded, that each holding the office of President of his respective College, they ventured into the breach, almost as matter of official duty, and, after a thorough exposure of the falsehood and quackery of the alleged sciences, carried the expulsion of the homœopaths triumphantly. Not one member of the Society was bold enough to meet them on the merits of the question; but, what open opposition could not effect, secret cabal attempted. I shall not detail the artful way in which an implied censure was attempted. Suffice it to say, that, in all the circumstances, Dr. Simpson felt himself constrained to publish his speech in the form of a pamphlet, and that, in the course of three several editions, it has assumed the bulk of this goodly octavo.

Much satisfaction is here felt at the honour which has been so deservedly conferred on Dr. Simpson by his election as a Foreign Associate of the Academy of Medicine,—all the more, that he was forced in by the strong conviction of the members, against a narrow and prejudiced attempt, on the part of the Commission, to exclude him; the President on the occasion declaring, that, "Although it had hitherto been considered, that the greatest honour which the Académie could confer upon a foreign colleague, was that of electing him amongst its members, yet it had remained for Dr. Simpson to prove, that a greater honour yet existed,—that of being chosen in spite of the will of the Académie itself."

This letter has extended to so great a length, that I must defer to another opportunity many of the topics I had intended to touch upon.

THE LATE DR. PEREIRA.—Two Committees have been formed to obtain funds for honouring the memory of the late Dr. Pereira —the one, general, of which Mr. N. Ward is Chairman, and Mr. T. B. Christie Secretary,—the other, in connexion with the Pharmaceutical Society. The first proposes to place a bust in the College of the London Hospital, and to distribute a portrait among the subscribers,—the latter contemplates obtaining a die for a medal to be awarded as a prize for researches or proficiency in Materia Medica.

GENERAL CORRESPONDENCE.

DR. BABINGTON AND THE TESTIMONIAL SYSTEM.

[To the Editor of the Medical Times and Gazette.]

Sir,—In an editorial article, headed "The Testimonial System," contained in your Number for April 2, you select myself and one or two other medical men as having "practised a system of secondhand advertising most discreditable to those who, knowing its consequences, traffic in it." I feel quite assured that it is not your intention to injure me individually; indeed, you grant that testimonials are often given "without any evil intention." Still, however, you affirm, that "the result of the testimonial being given is, on all occasions, that the dignity of the Profession suffers." In making this sweeping assertion you have, in my opinion, confounded the abuse of a system with the system itself. I can, I confess, see no good reason why a man, or a body of men,—for the principle is the same in both cases,—should not testify to any matter whatever, provided always that the motive be pure, and that the testimony be borne only to that which is conscientiously believed to be true. What is the diploma of the Universities or of the College of Surgeons — what are credentials, recommendations, prizes of all sorts,—but testimonials? How could vaccination, and a thousand other discoveries and inventions beneficial to mankind, have been known and tried, and confided in, if it had not been through the testimony, in the first instance, of individuals who had witnessed their merit or efficacy. Why, Sir, the system of testimonials or recommendations runs through society in all its grades, from the letters testimonial of a bishop to the character of a servant. Nay, there are many public and professional appointments which are not obtainable except on the production of testimonials.

Is it not to be permitted, then, that a teacher should furnish a testimonial to a meritorious pupil? In the instance you adduce of a testimonial which I gave a tradesman, I only stated that which, after due examination, I believed to be strictly true. If all persons who furnish testimonials would do the same, surely good rather than harm would result, and no one's dignity would suffer. It is the interested, the false testimonial, which does harm, and to this, and this alone, that your remarks justly apply. I admit, that the system is much abused, but this is not a legitimate ground of objection to its use. Charity is often abused, but am I never to be charitable on that account?

I am, &c. B. G. Babington.

31, George-street, Hanover-square.

CHLORINE IN ULCERATED SORE THROAT.

[To the Editor of the Medical Times and Gazette.]

Sir,—Having had the opportunity during the last two years of observing and treating several severe cases of ulcerated sore throat, I am induced to send you a brief account of their nature, and also to speak of the means I have almost invariably found useful in treatment.

I may prelude my description of the form of disease by saying, that it mostly occurred in low damp sites, which were also visited by intermittent fevers, &c., when prevalent.

I was called, in the autumn of 1852, to see a child of an agricultural labourer in very fair circumstances; the age of the patient was twenty months. From the mother's account, the child had appeared poorly for a day or two, having refused food, and was listless; this was soon followed by evident sore throat, the child crying whenever it attempted to swallow; then great hoarseness ensued, and the mother, thinking it a case of croup, sent for me. On examining the back of the throat, I found the soft palate, especially on the left side, and the left tonsil, covered by a white and ash-coloured slough; the pulse very quick and very weak; breathing greatly accelerated and most distressing, like one with violent croup. I learned the next morning the poor little sufferer had expired very soon after my visit. In a day or two I was called to see another child at the same house; her age was about eleven years. She was in much the same state as her little brother (then lying dead) as far as the throat was concerned, though the diseased action had not extended to the laryngeal region. There had in this case appeared but very little constitutional disturbance, though the girl had seemed greatly depressed, indisposed to make the least exertion, and when I saw her she was obliged to keep her bed. I found the pulse very weak and quick, face flushed, complained of shivering and headache, very little thirst, great difficulty of swallowing. On examining the throat, extensive white and ash-coloured sloughs were evident on the ulcerating surface of the tonsils of both sides, which were considerably swollen. The same state involved the soft palate. It appeared as though the diseased action had commenced on one spot, and had eaten the contiguous parts away. There was but very slight redness at the margins of the sloughs, thus showing but very little effort at repair.

From the other child having died so soon I could but be apprehensive of the consequences to this one of so similar an attack, and of this expressed my fears to the mother. I then prescribed a solution of chlorine, such as is recommended, I think, as a fever drink in Watson's "Practice of Physic," the child to take two tablespoonsful, with ½ gr. quinæ disulph., every three hours. You may imagine my great pleasure, on visiting my patient next day, to find the diseased action stayed, the sloughs cleaning, and that she could swallow with much more ease. On the fourth day I was happily enabled to pronounce my little patient quite out of danger. During that season I had several cases of the same type, generally with great depression. The chlorine solution I invariably made the basis of my treatment, combining it with some antimony or quinine, etc., and as the concomitant symptoms rendered advisable.

In any cases of that erysipelatous form of sore throat, with great pain on swallowing, and particularly in cases where the mucous membrane was at all removed by the disease, the same remedy will be found useful; again, in the sore mouth, with little ulcers on the tongue, which are so very painful. Lastly, I must pay tribute to the value of this remedy in treating scarlet fever, in which disease I know of no drug to supply its place.

Should you consider any part of this, I fear, lengthy communication worthy of a place in your valuable Journal, for the benefit of our fellows, I shall consider it a great privilege to have contributed but a mite of practical matter for the general good.

I am, &c.

Edward James Blyth, M.R.C.S.E.

Crawley, Sussex.

P.S.—I append the formula for the solution:—Put eight grains of chlorate of potash coarsely powdered into a pint bottle; add to this one drachm of hydrochloric acid; allow the violent action partly to subside, keeping the bottle well corked during this. Then add an ounce of water, shake well; then add another ounce of water, and so proceed till the pint bottle is filled, shaking well after each addition, to insure the mixture of the vapour with the water.

MR. HOVELL'S TRUSS.

[To the Editor of the Medical Times and Gazette.]

Sir,—Mr. Hovell having pointed out to me an error in my letter to you respecting his truss, which he is anxious to have corrected, may I beg the favour of your allowing me to do so?

Mr. Hovell, in his communication to you of January 8, does not describe the application of his instrument. I imagined that the spring was to pass between the thighs. I find, however, that it "is intended to pass round the body above the ileum," consequently, the inconveniences that would arise from the former plan, which I pointed out, do not apply to this truss.

Mr. Hovell further states, that his instrument is not intended as "a compressor, but a stimulator to contraction;" that he is "inclined to doubt the necessity of firmer pressure than his truss will give, and that reliance beyond this amount of pressure should be on brandy, ergot, cold." My compress is a "stimulator to contraction."

Another "point of (supposed) misstatement is the difference between leaving a doubtful and threatening case to the direction of a nurse, and one of actual flooding. A country practitioner anxious to reach some distant point would be glad to avail himself of the assistance of the truss or bandage in the one case, but would not be justified in the other."

I leave the Profession to decide if a truss, having "the pressure of a seven-pound spring," can be trusted as an "instrument for uterine hæmorrhage." I did not write of "doubtful and threatening" cases, but of actual ones. Mr. Hovell recommends his truss in the former cases, as "a great boon to a country practitioner."

My own opinion is, that no one would be justified in leaving a doubtful and threatening case to the protection of a seven-pounds yielding pressure.

My compress is intended for compression, which can be regulated according to circumstances; and when hæmorrhage has been arrested by it, which could not, as Mr. Hovell justly states, be so by the hand, "without the cost of time, fatigue, and anxiety," the patient may be left much sooner and with greater confidence in charge of the nurse, who can, if necessary, increase or diminish the pressure according to circumstances, to the great relief of the accoucheur. Usually there is no need for the nurse to interfere,

as the compress does not produce any pain; should, however, the flooding recur, she can tighten it before the arrival of the attendant, which may save the patient's life; for Dr. Murphy truly states, that until sleep ensues, you are never safe from a recurrence of the flooding. Dr. Murphy further remarks, "Your object now (in a case of hæmorrhage) is much more than to give the uterus moderate support. It is necessary to compress it firmly, therefore compresses are as essential, as the bandage alone is insufficient.

I am, &c. JOHN RAWLISON PRETTY.

31, Bayham-terrace.

P.S. This letter has received Mr. Hovell's approval.

THE ARTIFICIAL MEMBRANA TYMPANI.

[To the Editor of the Medical Times and Gazette.]

SIR,—In my last communication to you, I referred to Mr. Toynbee's startling statements respecting the occlusion of the Eustachian tube. That gentleman has kindly replied to me; and, in maintaining his proposition, that, for the integrity of hearing, the tympanum must be a closed cavity, he assumes, that his artificial membrana tympani effects that object. I thought, and still think, it probable, that it corresponds, in its mode of action, to the moistened cotton; and, in this view, I am evidently supported by Mr. Yearsley, as his last advertisement on your cover, referring to that practice, is headed "The Artificial Tympanum." It remains to be proved who is right. I'ermit me to add, that I think it a great pity that aural surgery should be so neglected by the Profession at large. I am, &c. JAS. MOASS CHURCHILL.

Colchester.

THE TESTIMONIAL SYSTEM.

[To the Editor of the Medical Times and Gazette.]

SIR,—Here is an illustration of some remarks of yours on the effects of and temptations to testimonial-giving:—"Your Grace has been suffering from headache lately," said the Duke of Noodle land a few weeks since to "his good lady," "here is a 'new remedy' for it, I wonder you do not try the thing. A great many 'people' write to the 'man' that makes it, to say that they have been cured." "I have been told," replied the Duchess, "that 'people' write these things for money." "Oh," rejoined His Grace, "here is a certificate from a doctor, who has evidently prescribed the 'cure' very often; you had better consult him as to whether or not it is suited for your ease. His address is on the bill, write it down." And so the Duchess's head is surrounded by a galvanic chain, and the doctor has the honour of inscribing the name of a Duchess on his visiting-list, to whom, but for his lucky testimonial, he might have whistled for an introduction.

I am, &c. M.R.C.S.

HOSPITAL STATISTICS AND THE STUDENTS.

[To the Editor of the Medical Times and Gazette.]

SIR,—A few weeks ago, having been given to understand that the *Lancet's* advocacy of a "Third Year's Student's" letters in respect to Dr. Hue, was due to things gone before, I addressed an anonymous letter to that journal, (little expecting its publication,) suggesting that the system, not the organ, was in fault, not only at St. Bartholomew's, but at the other hospitals also. Your observations on the out-patients at hospitals, induce me to think that my calculations may be of some interest to you. The hospital named, I select for no other reason than that to it I belong.

In the "Student's Handbook" of St. Bartholomew's Hospital for 1852-3, at page 17, we are informed, that "St. Bartholomew's Hospital contains 600 beds: 420 are allotted to the surgical cases, and to the diseases of the eyes; and 180 to the medical cases and the diseases of women. In the year 1852, 85,658 patients were relieved, including 5,957 in-patients, 19,119 out-patients, and 60,582 casualties." And now for a little simple division, etc.:—

From the 420 surgical beds, deducting 30 as an allowance for those daily empty, we have left 390 patients among 3 surgeons, or 130 each.

From the 180 medical beds, deducting 30 for Dr. West's Ward, and daily allowance of empty beds, we have left 150 patients among 3 physicians, or 50 each.

Dividing 19,119 out-patients among 6 assistant-physicians and surgeons, we find each has 3186 per annum, or above 60 per week; and allowing each to attend for a week only, that is, to see his medical attendant twice, then the latter must see 60 each day; or, allowing an average of 4 visits by each patient, (still under the truth,) then above 120 on each attendance.

A printed notice in the out-patients' room fixes from 12 to 2 o'clock as the surgeon's, and from half-past 11 to 2 o'clock as the physician's, time of attendance. How long can he be occupied in the examination of each case?

For in-patients, the physician and surgeon of the week attends daily. The others, three days a-week each visit, from about 1 till 3 o'clock on an average.

With such labours, practical instruction is out of the question. Is there not work sufficient for double the number of officers? Such an arrangement would, by increasing the number of classes, diminish the numbers of each individually. The present size of the classes is such as to make hospital practice a farce, were it not for the cost price of the spurious article, the dresser only being really able to learn by the bribe of a further handsome sum.

I am, &c. NOT A JEW.

THE LATE ELECTION AT THE UNIVERSITY OF LONDON.

[To the Editor of the Medical Times and Gazette.]

SIR,—The Senates of the University of London have again loudly declared the incompetency of the Graduates of that University for its offices, by electing a stranger to the Examinership of Materia Medica, in the face of two candidates of their own body. By so doing, they have virtually confessed, that their system of examination is a failure,—that none who pass that examination may look forward to the honours of the University,—and that the degrees conferred by Glasgow and the other Scotch Universities are preferable to their own! Such, at least, would be the inference drawn by most persons from the facts of the recent election, had not some other facts transpired, which render it certain, that the Senate is as amenable to the exercise of influence and interest as the governors of an hospital or the members of a trading company; and that what the body of graduates have hitherto believed of the impartiality of the acts of the Senate, must now be discarded.

The Senate, indeed, has ever placed a wide gulf between itself and the Graduates,—it has kept them at arm's-length,—and, were it not ambitious of the honour and influence consequent on the possession of the franchise, it would, if we may draw any deduction from the late inconsistent report of its Committee, have permitted them to go on agitating for Convocation for years to come, using, at the same time, all the secret opposition it could so efficiently exercise.

Four candidates, so far as I have been able to ascertain, applied for the vacant post. Of these, two were graduates of the University of London, the other two, of other Universities. Let us examine the claims of these four gentlemen, and endeavour to ascertain their relative value, so as to form a judgment of the conduct of the Senate in the election. Of the two graduates, Dr. Garrod is Professor of Materia Medica at University College; was joint author of a well-known manual of Materia Medica, has just edited a new issue of Thomson's "Dispensatory," is the author of several meritorious memoirs in various departments of Medicine, published in the Transactions of several of our learned Societies; besides which he was Gold Medalist for Medicine at the M.B. examination in 1842, and the M.D. examination in 1843. Dr. Ballard, the other graduate, was joint author with Dr. Garrod of the manual of Materia Medica above mentioned; has published a valuable work on the Diagnosis of the Diseases of the Abdomen, and obtained more university honours than any other man. I find him marked in the "Calender," in the first examination for M.B., 1841, as Gold Medalist and Exhibitioner for Anatomy and Physiology, and Gold Medalist and Exhibitioner for Chemistry. In the second M.B. examination, 1843, he obtained the same honours for physiology and comparative anatomy, and for medicine, and was second in midwifery; and at the examination for M.D. in 1844, he was Medalist in Medicine. Such are the two Graduates who placed themselves on the list of candidates for the Examinership, and were unsuccessful. Let us now examine the claims of the other two candidates. Of these Dr. Forbes Royle is Professor of Materia Medica at King's College, author of one of Churchill's excellent manuals,—that on Materia Medica, and has considerably advanced science by his investigations into the botany of India. The last, and, as fortune would have it, the successful candidate, is Dr. Owen Rees, who, as the "Medical Directory" informs us, is M.D. of Glasgow, F.R.S., Fellow of the College of Physicians, Assistant-Physician and Lecturer on Materia Medica at Guy's Hospital, author of a good compilation on the "Analysis of the Blood and Urine in Health and Disease," and of two other works

on Urinary Diseases. Such being the qualifications of the candidates, I do not hesitate to affirm, that both the Graduates possessed as strong a claim, independently of their Connexion with the University, as the extraneous candidates. Of the latter, Dr. Forbes Royle has certainly done much more to advance the department of Materia Medica than Dr. Rees, yet the latter has grasped the appointment. It may be asked, by what fatality Dr. Rees obtained the largest number of suffrages in the Senate? I answer, through the influence of Dr. Bright with the non-medical portion of the Senate. Consequently, Dr. Owen Rees is the nominee of Dr. Bright. It may be further inquired, on what grounds I lay so derogatory a charge against Dr. Bright as the canvassing the non-professional part of the Senate for his candidate. It is this:—One of the two graduates who contended for the examinership called on an eloquent historian, M.P. for a University city, and a member of the Senate, to lay before him his claims, but was at once met with the reply, "that he (the M.P.) had promised his vote to Dr. Bright's friend!" I had foolishly imagined, before this disclosure, that the members of the Senate met for the especial purpose of examining the relative qualifications of the candidates, that they deliberately weighed their several merits, and decided accordingly. But no,—it seems that members of the Senate are as accessible to private friendship and undue influence, as the meanest voters at an ordinary Parliamentary election. How much does the Senate sink in estimation, and how will its acts be judged of hereafter, if one of its most talented members could so demean himself as to promise his vote prior to the meeting and investigation of the claims of the candidates; and what must be the opinion of my fellow-graduates (not members) of the University, on the systematic exclusion of the graduates from all offices of trust in the University. I could say much more on this subject, did I not fear that I should trespass too greatly on your patience.

I am, &c.

M.D. Lond., but not a Candidate.

[The writer has forwarded his name.—Ed.]

THE NEW VACCINATION BILL.

[To the Editor of the Medical Times and Gazette.]

Sir,—Perceiving among the Medical News in your Number for March 19, that Dr. Babington, Mr. Marson, and Mr. Grainger had an interview with Viscount Palmerston as a Deputation on the subject of the "Vaccination Extension Bill," I ventured to intrude some remarks and suggestions, directed to Dr. C. M. Babington, fancying he was the Dr. Babington, M.D., therein named, but which, being now nearly a fortnight since, I have received no acknowledgment of. I now, therefore, suppose, that my observations are valueless, although I cannot expect any can possibly be better judges of the imperfections of the present Vaccine Act, and the many difficulties that must accrue to all those General Practitioners, who, unfortunately, have to carry out its enactments in a wide and populous district, and for a paltry sum per case. There was one query I made, which, perhaps, you can inform me of,—and that is, whether, where parties apply (regardless of age) to be re-vaccinated, a public vaccinator can charge for such cases? Many parties I have had apply to me whose circumstances have been good,—tradesmen's wives, children, and others; and, having been directed by the Board of Guardians, that I must not refuse any party applying, I have complied. They have been generally successful; and, where the vesicle has not gone through its various stages as perfectly as in a primary vaccination, I have deemed it has been, from the appearance it has put on, to be a sufficient test that the system still continues to be influenced by the vaccine originally introduced. And I cannot forbear remarking, that, as the Vaccine Act has been only comparatively a few years in operation, most of the cases were not before a charge on the Government. I am, &c.

A Subscriber, and an Admirer of the "Medical Gazette" from its Commencement.

Keynsham, near Bath.

NERVOUS HEADACHE.

[To the Editor of the Medical Times and Gazette.]

Sir,—In reply to your correspondent on "headache," in the *Times and Gazette* of Friday week, allow me to state as follows, from my own personal experience. For years I had been a martyr to a periodical pain across the temple *or temples*—most acute and distressing—and fashionably denominated "brow ague." The cause was invariably *atmospheric*—sometimes an easterly wind, at other times an abnormal electrical state of the air, and again, the respiration of an impure or deoxidized atmosphere (such as that of crowded churches and theatres) would induce an attack of greater or less intensity. But the most frequent and striking of these causes was the second, so much so that my head served as a regular electrometer for some hours prior to the bursting of a thunderstorm. The acute pain (across the temple) generally supervened towards night, and lasted at least thirty-six—sometimes forty-eight—hours. When once under its influence the resources of the *Materia Medica* were exhausted in vain. Camphor, ether, ammonia, diluted alcohol, eau-de-Cologne, and sedatives of all sorts were barely palliative. The pain at length ceased, but only to repeat its visitation at the end of six weeks or two months. It was, for the time, almost unbearable.

Now for the treatment. For some time I tried the disulphate of quinine, but without much effect. Having, however, persevered in the administration of that alkali, combined and uncombined with various preparations of iron, for at least six months, (but, as I should explain, with the object of curing another disease indicating great debility and nervous sensibility,) I have been, during that period, entirely free from "brow-ague," whereas formerly I bargained for at least six attacks in the course of the year! The medicines I have used include the disulphate of quinine, the citrate of iron and quinine, the sulphate of iron combined with quinine, etc. Quinine is undoubtedly *the* specific, but it must be persevered in; the quantity administered was at the rate of 2 to 3 grains per diem, without intermission, for five or six months. Neither the head nor the bowels have been distressed by the use of the quinine.

Yours, &c. A Martyr.

REPORTS OF SOCIETIES.

MEDICAL SOCIETY OF LONDON.

Dr. Forbes Winslow, President, in the Chair.

FIBRINOUS MENSTRUATION.

Dr. Crisp showed a specimen of fibrinous coagulum from the uterus, with drawings of the microscopical appearances. The subject of the case was a delicate woman, about 30 years of age, who had been twice pregnant. For some months past she had suffered from leucorrhœal discharges, sometimes of a purulent character. She complained also of pains in the back and loins, with a sensation of bearing down of the womb. There was tenderness on pressure over the uterine and ovarian regions, but this was not constant. She was likewise hysterical and hypochondriacal. On making a digital examination, the os uteri was found hot and rather swollen, but no ulceration was perceptible by the finger. During several of the last menstrual periods she had suffered great pain, attended apparently with expulsive uterine efforts; these were sometimes followed by the discharge of fibrinous clots, of a mottled, red, and white colour, arising from the intermixture of fibrin and red-blood corpuscles, the former being more abundant. The clots appeared about the size of a large almond, and assumed somewhat the form of the uterine cavity.

Microscopical Examination.—The red portion of the concretion consisted chiefly of blood-globules of a stellate or granular appearance, of lymph-globules, and of granular corpuscles. The fibrinous part exhibited the usual filamentary characters of fibrin. On making a section of the concretion, and placing it under a power of 40 diameters, the fibrin was seen interspersed throughout the clot, forming a net-work of white bands, the meshes taking generally the form of irregular squares, the red corpuscles occupying their centres. No vessels could be seen in the clot; but it was probable that if it had remained a little longer in the uterus, it would have become vascular.

Dr. Crisp said, he believed that but few microscopical examinations of these clots had been recorded. Two were described in the last volume of the "London Pathological Transactions," by Drs. Handfield Jones and Tyler Smith. The almost symmetrical arrangement of the fibrinous bands in the case described, Dr. Crisp thought was a point of some interest, and worthy of future inquiry.

CASE OF CROUP.

Dr. Willshire exhibited the larynx, trachea, etc., of a little girl of 4 years of age, who had died from croup. It was observed, that the preparation illustrated one of the forms of the disorder most common in this country, viz., that in which the affection has

its *point de depart* in the aerian passages, and not in the throat, or at the fauces, uvula, etc., as in the diptheritic variety so common on the Continent. Here it might be seen, that the base of the tongue, the tonsils, etc., were free from all deposit. Further, it might be remarked, that the crouposc exudation only invaded the larynx, the trachea being quite free, though evidently inflamed. The lungs did not appear to be involved in any material mischief, and the case seemed to have been one of those which might have favourably admitted of the operation of tracheotomy, if the following points could have been determined:—1st. That (during life) the deposit was confined to the larynx. 2nd. That the operation would be permitted early in the course of the disorder. 3dly. That the circumstances, etc., in life of the patient would permit of those hygienic, etc., cares necessary to accompany such an operation. In the present instance, neither of these conditions could be maintained; for, 1st. It was not diagnosed that the exudation did not extend below the larynx. 2nd. The patient was not seen until the disease had run a course of several days. 3rd. The patient belonged to the lower ranks of life, and the effects of the operation would, by this circumstance, have been untowardly influenced.

Dr. W. Camps communicated a paper on

DELIRIUM TREMENS,

which was read by the Honorary Secretary, Dr. E. Smith, in consequence of the absence of the author. Dr. Camps commenced his paper by stating, that, among other reasons for presenting this disease as a subject for discussion at the London Medical Society, the following had determined his selection of it: first, the great diversity of opinion that, in the course of medical reading, he had observed to obtain among authors who have written upon the subject, and other medical practitioners, as to the exact nature of the disease under consideration, and consequently of its appropriate treatment,—a discrepancy of opinion so great, that, while one class of practitioners resolutely advocates the treatment of the disease by means of opium and ammonia, and other kindred remedies, another class of practitioners loudly condemns this mode of practice as injudicious and almost absurd, recommending and enforcing the use of the lancet, and other antiphlogistic remedies, as the best and most successful mode of treatment of delirium tremens. Secondly: Having of late had his attention directed to some remarkable and interesting cases of nervous diseases, involving the bodily or somatic organs, as well as the mental or psychical expressions of these organs in a diseased or deranged condition, as well as having lately witnessed the satisfactory result of the narcotico-stimulant plan of treatment of the disease under consideration. And thirdly: Because, in the long catalogue of diseases affecting, or seated in the brain, spinal cord, and nerves, the author could not fix upon one of all these in which there appeared to be such a well-established relation of cause producing, and effect resulting, as in this disease. For, in delirium tremens, we have almost within reach of our senses the application of the same cause, or class of causes, followed almost invariably, and in nearly all subjects, by the same kind of effects or results. If there should be those among his audience maintaining the opinions referred to, the author would only say, let us discuss the subject in all sober earnestness, with a view to arrive at that object, which should ever be regarded as the desired ultimatum in all scientific discussions, namely, the attainment of *truth*. Let us clearly understand each other, and know what it is we are talking of and arguing about. Do we really think of and speak of the same assemblage of symptomatic phenomena, constituting the same disease, produced by the same cause or class of causes, and occurring in the same class of individuals? By delirium tremens the author signifies that disease, exhibiting an assemblage or catalogue of phenomena, physical and psychical, witnessed in those whose bodies or constitutions have been subjected to the morbific effects of repeated, and, it may be, of long-continued indulgence in the use, or rather the abuse, of alcoholic drinks or beverages, or other similar agencies acting, it is supposed, in the same manner upon the nervous system, and most probably through the blood. Dr. Camps proceeded to state, that this is one of those diseases which almost always have their origin in habits or modes of life which are in a great degree within the control of the patient's will. Indeed, it is not saying too much, that in all probability the disease might be erased from the long catalogue of ills to which man is subject, that it might be altogether prevented by the healthy exercise of the reasoning powers triumphing over the lower propensities of human nature. The varied literature of delirium tremens, as given in the authors who have written upon the disease, was referred to, including Drs. Sutton, Blake, Cross, Copland, Hoegh-Guldberg, and others. The symptoms of the disease were then enumerated by the author of the paper, availing himself of the method adopted by most writers on it, of an assumed division of the disease into three stages, passing the one into the other. The symptoms of delirium tremens vary much, from the most trifling degree of tremor, wakefulness, and delirium, accompanied with hallucinations and quickened pulse, to the highest degree of nervous depression, and muscular and cerebral excitement. The first stage usually presents the following indications, and very generally in the following order:—A peculiar slowness of the pulse, attended with coldness of the hands and feet, which, being in general bedewed with moisture, and from the effect of evaporation, present a clammy, icy sensation. These are preceded and accompanied with symptoms of general debility, and usually a diminution of temperature, cramp in the muscles of the extremities, with giddiness, nausea, and occasionally actual vomiting; the bowels are sometimes open, sometimes the reverse; nervous tremor of the hands and tongue, especially of the latter, which is mostly moist, and but slightly furred. These symptoms are accompanied with a dejection or depression of the mind, which is sometimes extreme, accompanied with frequent sighing and oppression, or sense of sinking at the precordial region, anxiety and depressed state of the countenance, with short and disturbed slumbers. The second stage comes on with a marked increase of many of the symptoms to be observed in the preceding stage, the countenance of the patient assuming gradually a wild and more anxious expression; he soon begins to have various mental illusions, or hallucinations; he imagines that he sees loathsome and disagreeable objects, that constantly annoy and trouble him, and which he will attempt to catch with his hands, supposing they are upon his bed; he suffers from increased restlessness; he is excessively talkative; in fact, in some cases the garrulity is extreme, and most commonly upon the objects of his delusions. He is more sleepless, and at times absolutely so; so that by some writers this per-vigilium is considered as pathognomonic of this stage of the disease. The temperature of the surface of the body may increase, while that of the hands and feet remains cold and clammy as before. The general restlessness and hurry of manner increases; the tongue is more coated with fur, and it is now so tremulous, that the patient cannot hold it still when protruded from the mouth. The urine at this time is usually scanty; the pulse is mostly frequent, above 100, and sometimes considerably so. The pupils are usually contracted, but he does not complain of intolerance of light, nor, during the course of the disease, does he complain of any pain about him; and frequently, when interrogated by his physician or his friends about himself, will reply, sharply it may be, that he is quite well, that there is nothing the matter with him. After these symptoms have continued two or three days, and the case is about to terminate favourably, the gradual mitigation of the above symptoms is usually attended with yawning and drowsiness, with evident disposition to sleep; and this, as soon as it thoroughly seizes the patient, is frequently very deep or profound, lasting sometimes from six or eight, to twelve, fourteen, eighteen, or even twenty hours; and in most instances is so completely critical, that it appears, as it were, to resolve, or almost to terminate, the disease. Of such cases as terminate favourably, this may be said to constitute the third stage of the disease; but if, on the other hand, the disease should terminate fatally, the general symptoms increase in violence; the mind of the patient labours under excessive irritability; he makes frequent and violent struggles; there is more evident depression of the muscular, nervous, and vascular systems; the pulse becomes quicker, smaller, and weaker; the tremor, too, affects nearly all the limbs; the patient is constantly talking or muttering to himself; the delirium increases in intensity; sometimes the patient expires in an attack of convulsions, and sometimes death is preceded by a subsidence of the general symptoms. The treatment of delirium tremens was then referred to by Dr. Camps, by venesection, cupping, and leeches, and the arguments for and against free bleeding, in cases of this disease, discussed at some length, the author strongly reprobating the copious abstraction of blood, as recommended and practised by some authorities. The recorded effects of emetics, purgatives, blisters, mercurials, and the warm bath, were then mentioned. Two cases were related in which chloroform had been administered internally with advantage, after other remedies had failed to give relief. These were quoted from Dr. Ranking's "Abstract of Medical Sciences." The treatment recommended by Dr. Stokes, of Dublin, who divides all forms of this disease into two classes, was also mentioned by Dr. Camps in his paper, in which he strongly advocated its treatment by opium and ammonia, and other similar remedies,—a mode of treatment described as the narcotico stimulant method.

Several Fellows took part in the discussion that ensued, after which the Society adjourned.

EPIDEMIOLOGICAL SOCIETY.

Dr. Babington, F.R.S., President, in the Chair.

The annual meeting of this Society was held April 4, when the President and other officers for the ensuing year were elected. The following are the names of the gentlemen who have been chosen to superintend the affairs of the Society during the ensuing year. It will be seen that, with the exception of six new members of the Council, among whom we notice with satisfaction the name of a gentleman unconnected with the Profession of medicine—the Hon. Josceline Percy, M.P., all the former officers have been re-elected, the Society feeling that the best pledge for its future usefulness and prosperity would be afforded by the continuance in office of the President, Dr. Babington, and of the Secretaries and other officers, to whose zeal and assiduity the present satisfactory state of this useful and important Society is mainly attributable :—

President, Benjamin Guy Babington, M.D., F.R.S. *Vice-Presidents.*—Thomas Addison, M.D.; Richard Bright, M.D., F.R.S.; Sir B. C. Brodie, Bart., F.R.S.; Sir Wm. Burnett, Knt., K.C.B., K.C.H., F.R.S.; Sir C. M. Clarke, Bart., M.D., F.R.S.; Rev. Thomas Dale, M.A., Canon Residentiary of St. Paul's; R. D. Grainger, Esq., F.R.S.; Sir Charles Hastings, M.D., Worcester; Sir John Liddell, C.B., M.D., F.R.S.; Sir James M'Grigor, Bart., K.C.B., K.C.T.S.; John Nussey, Esq.; John Propert, Esq.; G. L. Roupell, M.D., F.R.S.; Thomas Southwood Smith, M.D.; Colonel Sykes, V.P.R.S.; Thomas Watson, M.D. *Treasurer.*—Thomas Addison, M.D. *Honorary Secretaries.*—J. O. M'William, M.D., F.R.S., R.N., and J. H. Tucker, Esq. *Other Members of Council.*—C. A. Aikin, Esq.; A. Beattie, M.D., (new); James Bird, M.D.; Samuel Brown, Esq.; A. Bryson, M.D., R.N.; J. Hall Davis, M.D.; Charles Hawkins, Esq., (new); E. Headland, Esq.; T. Hunt, Esq.; W. Jenner, M.D., (new); Waller Lewis, M.B., F.G.S.; C. F. J. Lord, Esq., (new); J. F. Marson, Esq.; Gavin Milroy, M.D.; A. Nisbett, M.D., R.N.; Hon. Josceline Percy, M.P., (new); G. Pilcher, Esq.; E. Seaton, M.D.; F. Sibson, M.D., F.R.S.; E. Sieveking, M.D.; Professor Simonds, R.V.C.; J. Snow, M.D.; C. R. Walsh, Esq.; Erasmus Wilson, Esq., F.R.S., (new).

Dr. M'William read the Report of the Council, which stated that the various Committees appointed to inquire into the phenomena and circumstances of particular epidemics were in full operation, and many of them had advanced far towards the completion of their work. A Committee had been nominated to investigate the causes which led to the late outbreak of epidemic fever at Croydon, and it was hoped that some useful information would result from their labours. Allusion was made to the large demands which had been unavoidably made on the funds of the Society by the Secretaries of the various Committees; for, valuable, and interesting, and highly honourable to the Society, as the papers read at the ordinary meetings had no doubt been, the Council felt convinced it was through the silent, steady, and vigorous processes of investigation into the various subjects of inquiry conducted by Committees, that the great ends of the Epidemiological Society were to be accomplished. The existing state of the finances, however, served to remind the Council, that the amount derived from the subscriptions of members alone was wholly insufficient to meet the current expenses of the Society, and at the same time to maintain in wholesome vigour the operations of the Committees already at work. The same reason must, for a while, (and it is to be hoped for a short while only,) retard the formation of several new Committees for some time in contemplation by the Council. The Council concluded their Report by remarking, that "the retrospect taken of the transactions of the Society during the past year has of necessity been brief; it is presumed, however, that enough has been said to show that the Council have not been unmindful of the importance of the trust committed to them, and have laboured to vindicate the claims of the Society to a still more extensive co-operation and support from the Profession and the public in general."

The Report was adopted unanimously.

A paper, which was chiefly statistical, was read by Dr. Finch, "On the Prevalence of Small-pox Epidemically in Calcutta."

Dr. Babington, Mr. Hunt, Mr. Stuart, Assistant-Surgeon, Bombay Army, Dr. James Bird, Mr. Mason, and the author, joined in the discussion.

The Society adjourned at the usual hour.

LORD LYTTELTON'S BILL,

INTITULED "AN ACT FURTHER TO EXTEND AND MAKE COMPULSORY THE PRACTICE OF VACCINATION."

Whereas an Act was passed in the fourth year of the reign of Her present Majesty, intituled "An Act to extend the Practice of Vaccination," and whereas an Act was passed in the fifth year of the same reign, intituled "An Act to amend an Act to extend the Practice of Vaccination:" and whereas it is expedient that the practice of vaccination should be still further extended: Be it therefore enacted by the Queen's Most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:—

I. The father or mother of every child born in England or Wales after the first day of August in the year of Our Lord one thousand eight hundred and fifty-three shall, within six calendar months after the birth of the said child, or, in the event of the death, illness, absence, or inability of the father and mother, then the person who shall have the care, nurture, or custody of the said child, shall, within seven calendar months after the birth of such child, take, or cause to be taken, the said child to the medical officer or practitioner appointed according to the provisions of the first-recited Act, or to some other duly-qualified practitioner, for the purpose of being vaccinated; and the said medical officer or practitioner shall, and he is hereby required, thereupon, or as soon after as it may conveniently and properly be done, to vaccinate the said child, without fee or reward other than is provided for by the said recited Acts.

II. Upon the successful vaccination of any child, the medical officer or practitioner who shall have performed the operation, shall (without fee or reward) deliver to the father or mother of the said child, or to the person who shall have the care, nurture, or custody of the said child, a certificate under his hand, according to the form of schedule hereinafter inserted, marked A., that the said child has been successfully vaccinated; and such certificate shall, without further proof, be admissible as evidence of the successful vaccination of such child, in any information or complaint which shall be brought against the father or mother of the said child, or against the person who shall have had the care, nurture, or custody of such child, as aforesaid.

III. If such medical officer or practitioner be of opinion that any child which shall be brought to him for vaccination is not, at the time when so brought for the purpose aforesaid, in a fit and proper state, to be successfully vaccinated, he shall postpone the vaccination until such time as he thinks the operation may be safely and successfully performed; and he shall, in the event of such postponement, thereupon and immediately deliver, without fee or reward, to the father or mother of such child, or the person having the care, nurture, or custody of the said child, a certificate under his hand, according to the form of schedule hereinafter inserted, marked B., that the child is in an unfit state for successful vaccination; and such certificate shall remain in force for three calendar months from its delivery as aforesaid; and the father or mother of the said child, or the person having the care, nurture, or custody of the said child, shall, within three months next after the delivery of the said certificate as aforesaid, and if the said child be not vaccinated at or by the termination of such period of three months, then, during each succeeding period of three calendar months, until such child has been successfully vaccinated, take, or cause to be taken, to the said medical officer or practitioner, such child, to be vaccinated by him; and if the said medical officer or practitioner deem the said child to be then in a fit and proper state for successful vaccination, he shall forthwith vaccinate it accordingly, and shall, without fee or reward, deliver to the father or mother of such child, or person having the care, nurture, or custody of such child, a certificate under his hand, according to the form of schedule hereinafter inserted, marked A., that such child has been successfully vaccinated; but if the said medical officer or practitioner be of opinion that the child is still in an unfit state for successful vaccination, then he shall again deliver to the father or mother of such child, or person having the care, nurture, or custody of the said child, a certificate under his hand, according to the said form of schedule B., that the child is still in an unfit state for successful vaccination; and the said medical officer or practitioner, so long as such child remain in an unfit state for vaccination, and unvaccinated, shall, at the expiration of every succeeding period of three calendar months, deliver, if required, to the said father or mother of such child, or person having the care, nurture, or custody of such child, a fresh certificate under his hand, according to the said form of schedule.

IV. The guardians or overseers of the several unions or parishes

in which the operation has been performed, shall keep a register of the persons so reported by the said medical officer or practitioner as having been successfully vaccinated; and such register shall be under the care and control of some person appointed by them for that purpose, who shall, at all reasonable times, allow searches to be made of any such register-book in his keeping, and shall give a copy, certified under his hand, of any entry or entries in the same, on payment of the fee hereinafter mentioned; that is to say, for every search extending over a period of not more than six months, one shilling; and one shilling and sixpence for every additional year, and the sum of sixpence for every single certificate.

V. The registrar of births and deaths in every union, parish, or district, shall, on the birth of any child within that union or parish, give notice in writing, according to the form of schedule hereinafter inserted, marked C., to the father or mother of such child, or, in the event of the death, illness, absence, or inability from sickness or otherwise, of the father and mother, then to the person upon whom the care, nurture, or custody of such child shall have devolved, that it is the duty of such father or mother, or person having the care, nurture, or custody of such child as aforesaid, to take care that the said child shall be vaccinated in the manner directed by this Act; and if, after such notice, the father or mother of the said child, or the person so having, as aforesaid, the care, nurture, or custody of the said child, shall not accordingly cause such child to be vaccinated, then such father or mother, or person having the care, nurture, or custody of such child as aforesaid, so offending, shall forfeit a sum not exceeding two pounds.

VI. A fee of one penny shall be paid to such registrar for the performance of such duty; and he shall keep a book, to be provided by the guardians or overseers, containing a minute of his having duly given such notice; and the said fee shall be payable in the same manner as the fee now payable to such registrar for registering the birth of such child as aforesaid is paid.

VII. That in the event of a child becoming sick or indisposed, in consequence of having been vaccinated as aforesaid, then, and in such case, it shall be the duty of the medical officer and practitioner who vaccinated the said child, to attend upon and prescribe for the said child during such sickness or indisposition, and to furnish it with such medicines as may be necessary for its recovery, without fee or reward, other than is provided for by the above first-mentioned Act.

VIII. If any child be born out of England and Wales, that then the father or mother of such child, or person having the care, nurture, or custody of the said child, shall, within two months after the arrival of the said child in England or Wales, under a penalty of forty shillings, to be recovered under the provisions of this Act, cause the said child to be vaccinated by such medical officer or other qualified practitioner as aforesaid, subject to the provisions hereinbefore contained in relation to children born in England.

IX. All penalties by this Act imposed shall be recovered before any two justices of the peace for the county, city, or place where the offence shall have happened, upon the information or complaint of any person; and if, on the conviction of the offender, such penalties, with the costs of conviction, shall not forthwith be paid, the same shall be levied by distress and sale of the goods and chattels of the offender, by warrant under the hand and seal of such justices; and, for want of distress, such justices may commit every such offender to the common gaol or house of correction for the county, city, or place where the offender shall be committed, without bail or mainprise, for any term not exceeding one calendar month, unless such penalty, and all reasonable charges attending the recovery thereof, shall be sooner paid.

Schedules referred to by this Act.

SCHEDULE (A).

I, the undersigned, hereby certify, that , the child of , aged , of the parish of , in the county of , has been successfully vaccinated by me.

Dated this day of , 185 .

(Signed) A B,

Surgeon to the Union or Parish (as the case may be.)

SCHEDULE (B).

I, the undersigned, hereby certify, that I am of opinion, that , the child of , of the parish of , in the county of , aged , is not now in a fit and proper state to be successfully vaccinated; and I do hereby postpone the vaccination until the day of , 185 .

(Signed) A B,

Surgeon of the Union or Parish (as the case may be).

SCHEDULE (C).

I, the undersigned, hereby give you notice, and require you to have C D vaccinated within six months after the birth, or within three months after your having the guardianship of the said C D, and the said C D shall be six months old, pursuant to the provisions and directions of the Act of the 16th Victoria, cap. . As witness my hand, this day of , 185 .

J B,

Registrar of Births and Deaths for the Union or Parish (as the case may be).

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS.—The following gentlemen having undergone the necessary examinations for the diploma, were admitted Members of the College at the meeting of the Court of Examiners, on the 8th inst.:—

BROWN, ALEX., Hon. E. I. C. S., Steeple Bumpstead, Essex.
DEBENHAM, HORACE KERSEY, Queen's-road, Dalston.
DEMPSTER, ROBERT, Sussex.
DREW, JOHN HENRY, Southampton.
EVANS, MAURICE GRIFFITH, Blaenafon, Carmarthen.
HAWKES, JOHN, Wells, Somerset.
JENKINS, ROBERT W., Mausell street, Goodman's-fields.
JONES, JOHN, Swansea.
MANLEY, WILLIAM GEORGE NICHOLAS, Barking, Essex.
ROGERS, THOMAS LAWES, Alvediston, Wilts.
SIMONS, ROBERT THOMAS, Sydney, Australia.
SMITH, WILLIAM EDWARD, Bristol.

The following gentlemen were admitted members of the College at the meeting of the Court of Examiners on the 11th inst.:—

CHAPMAN, CLARENCE, Devonshire-street, Portland-place.
COGAN, CECIL CALVERT, Winsley, Bradford, Wilts.
CREGEEN, JAMES JOSEPH, Deptford.
DODGE, WILLIAM HENRY, St. Austell, Cornwall.
GOSS, WILLIAM FORBES, Paternoster-row.
HUDSON, THOMAS WATSON, Whitehaven, Cumberland.
MORETON, JAMES EARL, Marton-hall, Cheshire.
PRATT, EDWARD, Appledore, North Devon.
ROSS, GEORGE, London.
STUTTER, FREDERICK A., Wickham-brook, Suffolk.
VINCENT, CYRIL JOHN, Oxford.

APOTHECARIES' HALL.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, April 7, 1853:—

BAKER, SLADE JAMES, Upper Hayford Oxon.
BIANCHI, ROBERT, Como, Italy.
CARDOZO, SAMUEL, Australia.
EVANS, MAURICE GRIFFITH, Blaenafon, Carmarthenshire.
HARRISON, WILLIAM, Gargrave, Yorkshire.
HEMMING, CHARLES, Kimbolton, Huntingdonshire.
LEWIS, THOMAS, Llandillo, Carmarthenshire.
LONGHURST, A. E. TEMPLE, Kirkby Mallory, Leicestershire.
MOORE, THOMAS ALEXANDER, Preston, Lancashire.
SEDGWICK, CHARLES, Maidstone.
TALBOT, DAVID AUGUSTUS MARTIN, Wraxall, Somerset.
TEANBY, FREDERICK WILLIAM, Stent, near Bridgewater.
VAUGHAN, WILLIAM EDWARD WEDGE, Crewe.
WARD, JOSEPH HAYDON, Epsom.

APPOINTMENTS.

MILITARY.—Assistant-Surgeons.—Richard P. Chapman (1843), recently serving in the Medina Mediterranean mail steam-packet, to the Victory flag-ship, at Portsmouth; Andrew Clark (1846), to the Victory.

MILITIA.—Lancashire: William Honner Fitzpatrick, gent., to be surgeon. Staffordshire: George John Wood, M.D., to be surgeon; Samuel Mayer Turner, gent., to be assistant-surgeon.

VACANCIES.

HAMPSHIRE COUNTY HOSPITAL. — A vacancy has just been declared in the Medical Staff of the Hampshire County Hospital at Winchester, in consequence of the resignation of Dr. Phillips, for many years Senior Physican to the hospital.

HUNTERIAN SCHOOL OF MEDICINE.—The Lectureship on Medical Jurisprudence is vacant by the death of Dr. Richard Chambers.

KING'S COLLEGE.—The office of Joint Professor of Physiology with Mr. Bowman is vacant, by the resignation of Dr. Todd.

LEICESTERSHIRE AND RUTLAND LUNATIC ASYLUM.—The office of House-surgeon and Superintendent is vacant, by the resignation of Mr. Prosser.

ROYAL SEA-BATHING INFIRMARY, MARGATE.—There is a vacancy in the office of Resident Surgeon to this Institution.

DEATHS.

ANDERSON.—April 10, at Haslar Hospital, Dr. James Anderson, Medical Inspector of Hospitals and Fleets.—*Times.*

DYER.—Very suddenly, on April 2, of disease of the heart, aged 61, Mr. Thomas Dyer, of Ringwood, in Hampshire. This gentleman passed the College of Surgeons in 1813, and immediately afterwards entered upon practice in the town of Ringwood, and, after forty years of unremitting exertion, had retired from the more arduous duties of his Profession in favour of his son, when he was suddenly struck down by the hand of death. Mr. Dyer was one of those who are an honour to our Profession,—an upright and conscientious man, always thinking and working for the good of others. His worth was sincerely appreciated by his neighbouring professional brethren, and he was respected and looked up to by all classes generally. A deep gloom has been thrown over the scene of his exertions by his sudden death. On the day of his funeral, the whole of the shops in the town of Ringwood were closed, and all the gentry resident there followed this excellent man to his grave. It is a pleasing thing to find such a tesmony of respect paid to a member of our Profession. No one in it comported himself more worthily than the late Mr. Dyer, and, consequently, few deserved or obtained more respect.

MEDICAL BENEVOLENT COLLEGE.—At the last meeting of the Council, held at the Hanover-square-rooms, Lord Dynevor and Thomas Copland, Esq., F.R.S., were unanimously elected Vice-Presidents of the College. Thanks were voted to the Bishop of London for his able sermon in aid of the funds, and to the Rev. Thomas Garnier, for granting the use of his pulpit on that occasion. The latter gentleman was also elected Honorary Governor of the Institution.

MEDICAL BENEVOLENT FUND.—At the last meeting of the Committee it was announced by the Treasurer, that one of the annuitants, who was blind, had lately died, leaving his widow and child in great distress. Resolved, that the sum of 10*l.* be given. Letters of acknowledgment of the receipt of moneys voted at the previous meeting having been read, the Treasurer stated, that, since July, 1852, the sum of 500*l.* 15s. had been received in annual subscriptions, and 296*l.* 14s. in donations; that the expenses had been 51*l.* 12s. 3d.; and that 469*l.* had been spent in grants: leaving the sum of 20*l.* due to the Treasurer.—Case 1. The widow of a surgeon of Nottingham, who died in February last, having practised there thirty years, leaving eleven children, eight of whom were unprovided for. Voted 25*l.*—Case 2. The widow of a physician lately practising in London. Left in great distress. Voted 5*l.*—Case 3. The wife of a medical man, whose husband is imbecile, and who supports herself, her husband, and two children by letting lodgings. Relieved twice previously. Voted 5*l.*—Case 4. The widow of a medical man, also relieved previously. She supports herself by going out as a governess; and her two daughters, who are in bad health, endeavour to support themselves by working as milliners. All at present in difficulties. Voted 10*l.*

INQUEST ON DR. RICHARD CHAMBERS.—On Monday Mr. Wakley held an inquest at the Weymouth Arms, Weymouth-street, Portland-place, on the body of Dr. R. Chambers, late of Wimpole-street, the circumstance of whose death we have already reported. Mr. Wilson, of Charlotte-street, who had made the *post-mortem* examination, said, that on opening the body he was struck, as were other medical gentlemen present, with the odour of prussic acid. He found the right ventricle of the heart double its natural size. The phial found by the side of the deceased smelt strongly of prussic acid, and upon reference to the prescription from which its contents had been compounded, he found that the deceased had prescribed for himself six drops of prussic acid, of Scheele's strength, with ten drops of Battley's solution of opium, one drachm of colchicum, two of acetate of ammonia, and an ounce and a half of water. He believed that the deceased had taken this as a medicine, and that owing to the disease of the heart the prussic acid had caused death. The jury, after hearing other evidence, found "That the death of the deceased was caused by a diseased heart, under the influence possibly of prussic acid taken medicinally."

LIEBIG.—The retirement of Baron Liebig from the Chair of Chemistry at Giessen has appeared to several of his friends to offer a fitting opportunity for presenting him with a testimonial in acknowledgment of his eminent scientific services. Whatever may be the ultimate value of many of his theories, there can be no doubt that the chemical researches and eloquent writings of Liebig have given an immense impetus to the practice of agriculture and the science of physiology. How deeply this is felt, is shown by the long list of subscribers which has already been published by the Committee formed in London. Of this Committee Professor Graham is Chairman, Dr. Warren De la Rue is Treasurer, and Mr. Brodie and Professor Hofmann are Secretaries.

THE LATE M. ORFILA.—Not long before the death of M. Orfila, a Committee was appointed to entertain the question of a testimonial of gratitude on the part of the medical body in France for the acts of liberality performed by that gentleman in favour of science and the Profession. Death has, of course, changed the character of the intended act of homage, and the Committee have decided that the subscription shall go on with the view of erecting a monument to the memory of the eminent Professor.

BETHLEM HOSPITAL AND SIR ALEXANDER MORISON, M.D.—The authorities have passed the following resolution, in consequence of the resignation of Sir Alexander:—"That, on receiving the resignation of Sir Alexander Morison, M.D., of his office of one of the physicians of Bethlem Hospital, this Committee desire to offer him the testimony of their respect, and to record their opinion, that the discharge of his duties has been at all times characterised by an industrious and kind attention to the patients. That, while this Committee do not recognise the claim of any officer whose time is only partially required for, and occupied by, the discharge of his duties to a superannuated allowance, they are of opinion, that, under the peculiar circumstances referred to by Sir Alexander Morison, in his letter of resignation, an annual payment of 150*l.* may be made to him during the pleasure of the Court, and this Committee recommend the same accordingly."

BETHLEM HOSPITAL.—The House Committee of Bethlem, at a recent meeting, resolved, that, in consequence of the appointment of a Resident Physician, it was not necessary to continue the office of Visiting Physician, but that, instead of holding that office, Dr. Monro should be elected Consulting Physician to the hospital, receiving the usual remuneration whenever called in.

LUNACY.—A Commission *de lunatico inquirendo* has pronounced Mr. Feargus O'Connor of unsound mind.

COMPULSORY VACCINATION.—On Tuesday, in the House of Lords, Lord Lyttelton moved the House into Committee on the Vaccination Extension Bill. Several amendments having been agreed to, the Bill was ordered to be read a third time; at the suggestion, however, of the Earl of Ellenborough, Lord Lyttelton assented that, in order to give time for due consideration, all the amendments should be printed, and the Bill be recommitted at a future time.

THE AGAMEMNON AGAIN.—There have been sixteen new cases of fever, since April 11, in the crew of this ship, among men who have returned to her from Haslar.

BAD BEER OR BAD MEASURE.—In the number of this Journal for the 8th of January, in an article entitled "Bad Beer or Bad Measure," we drew the attention of our readers to the size of our beer-bottles, and pointed out, that the purchaser of every pint bottle of beer was mulcted in at least one-third of his due, solely to enrich the already too-wealthy brewer, or the well, if not overpaid retailer. As a remedy for this, we observed, that one of two things must happen. Either the size of the beer-bottles must be altered so as to hold the imperial pint or quart; or, if they are to be allowed to remain as they are, they must pass under some other denomination than is at present used to designate them. We are glad to find, that at least one beer-firm, Messrs. Earle, Brothers, and Co., of Duncannon-street, Trafalgar-square, have, in consequence, adopted the plan of selling ale and porter in bottles manufactured expressly for them,—made to contain the full imperial measure, so that from at least one house in London the public receive their due.

MORTALITY IN PUBLIC INSTITUTIONS for the week ending April 9:—

	Males.	Females.	Total.
Workhouses	82	78	160
Military and Naval Asylums ..	5	..	5
General Hospitals	32	19	51
Hospitals for Special Diseases .	1	2	3
Lying-in Hospitals	...	...	...
Lunatic Asylums	8	4	12
Military and Naval Hospitals ..	3	..	3
Hospitals and Asylums for Foreigners	..	1	1
Prisons	...	...	..
	131	104	235

MORTALITY NOTABILIA.—The mortality of the metropolis is still high, though it exhibits an important decrease on that of the previous week. In the week that ended last Saturday the number of deaths registered was 1340. The average number in ten corre-

sponding weeks of the years 1843-52 was 961, which, with a correction for increase of population, will give a mortality of 1057 for last week. The present return, therefore, shows an excess of 283 above the estimated amount. With the progress of the spring months, and a warmer sky, there is ground for expectation that the public health will speedily improve. The mean temperatures of the last three weeks have been progressively 33·3°, 43·4°, 47·3°. With reference to fatal diseases, a comparison of the facts of the last two weeks discovers generally a decrease. Typhus has declined from 77 to 49, bronchitis from 231 to 186, pneumonia from 122 to 98, phthisis (consumption) from 179 to 165. But hooping-cough, which prevails at present, continues at the same amount, and last week carried off 80 children. 5 children died of small-pox, 17 of measles, 36 of scarlatina, and 12 of croup. 8 fatal cases of syphilis are recorded, 4 of which occurred to children. At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·742 in.; on Saturday the mean reading was 30·149 in. The mean temperature of the week was 47·3°, which is 3° above the average of the same week in 38 years. On the first five days the mean daily temperature was from 2° to 8° above the average; during the rest of the week, when the wind blew from the north, it was about 4° below it. During the greater part of the week the wind was in the west. The mean dew-point temperature was 40·1°.

DEATHS *in the Metropolis for the week ending Saturday, April 9*, 1853.

Causes of Death.	April 9. 0	15	60	All Ages.	Sum of Ten Weeks.
All Causes	621	411	307	1340	9606
Specified Causes	619	409	306	1335	9574
1. Zymotic (or Epidemic, Endemic, and Contagious) Diseases ...	187	44	22	253	1911
Sporadic Diseases:					
2. Dropsy, Cancer, and other Diseases of uncertain or variable seat ...	11	22	18	51	453
3. Tubercular Diseases	93	147	4	244	1914
4. Diseases of the Brain, Spinal Marrow, Nerves, and Senses ...	75	43	40	158	1176
5. Diseases of the Heart and Blood-vessels	...	32	15	47	340
6. Diseases of the Lungs and of the other Organs of Respiration ...	147	68	108	323	1720
7. Diseases of the Stomach, Liver, and other Organs of Digestion...	32	20	14	66	600
8. Diseases of the Kidneys, etc. ...	2	4	10	16	95
9. Childbirth, Diseases of the Uterus ...	...	9	...	9	86
10. Rheumatism, Diseases of the Bones, Joints, etc.	1	9	1	11	68
11. Diseases of the Skin, Cellular Tissue, etc.	1	1	...	2	15
12. Malformations	3	...	...	3	29
13. Premature Birth and Debility ...	26	3	...	29	200
14. Atrophy	26	...	14	40	178
15. Age	...	...	56	56	493
16. Sudden	3	3	...	6	86
17. Violence, Privation, Cold, and Intemperance	12	4	4	21	205
Causes not Specified	2	2	1	5	32

TO CORRESPONDENTS.

Our next Number will contain the first of a series of Reports from the Royal Hospital of Bethlem, by Dr. W. C. Hood, Medical Superintendent.

Medical Advertisements in Australia.

[To the Editor of the Medical Times and Gazette.]

Sir,—As it may be interesting to your readers to learn how our medical brethren announce their arrival in Australia, I send you an advertisement extracted from the "Argus," a Melbourne paper, of the date of Oct. 23rd, 1852:—

"Dr. Preshaw, Surgeon, of Edinburgh, lately arrived in Victoria, begs leave to intimate his intention of practising his profession as a general practitioner, and has, for the present, pitched his tent at Moonlight Flat, Forest Creek. Dr. Preshaw takes this opportunity of mentioning, that he has been engaged in most extensive practice in Scotland for the last 24 years. Dr. P.'s tent will be distinguished by his name across an ensign flying, and a 'Scotch thistle' at the end."

His Northern friends may, perhaps, be glad to learn by this, that he may be found at the sign of the "Thistle," in the Moonlight Flats.

I am, etc. R.

F.R.C.P.—The Address read by Dr. Francis Hawkins to Lord Palmerston, on His Lordship receiving a Deputation from the Royal College of Physicians, was to the following effect:—

"The President and Fellows of the Royal College of Physicians desire respectfully to represent to Lord Palmerston that they are charged by the Legislature with public duties which, under the encumbrance of their present Charter, it is impossible that they should perform satisfactorily to the Profession, beneficially to the public, or creditably to themselves.

"They are sure, therefore, that in earnestly requesting Lord Palmerston to obtain for them an amended Charter, they shall not appear to His Lordship to be importunate or unreasonable.

"At present the College, or, more correctly, its Board of Elects, is compelled to grant to any one who applies, and who can pass a sufficient examination, letters testimonial, entitling him to practise as a physician in the country, but not in London or within seven miles round.

"Such letters testimonial, or extra licence, as they are termed, have the advantage of being exempted from very heavy Stamp-duty, which is imposed upon licences for practising in London.

"But it is obvious that restrictions upon practice, constituting a person a physician in one place and not in another, are wholly unsuited to the present state of society, and to the close connexion which now subsists between the Metropolis and the country.

"It is certain, also, that they create class distinctions and dissensions, and that ultimately they lead to contempt of the law, an instance of which is, that some of those who are licensed for the country transfer themselves to London, and practise there, discreditably because illegally.

"Moreover, a large proportion of physicians who are practising in the country, many of them being physicians to county hospitals and large infirmaries, and possessing diplomas from Scotland, Ireland, the University of London, or the Continent, are nevertheless deficient in the legal qualifications which the law requires in our country. For the law of England recognises no physicians except the licentiates and extra-licentiates of the College of Physicians, and graduates of Oxford and Cambridge licensed to practice, and these last have no legal qualification to practise in London.

"It is much to be regretted that persons of education and character should be placed in such a position as to be infringing, by their daily practice, the common law of the land; and a vast number of physicians so situated in the country have expressed themselves as being most desirous of becoming members of the College on the terms offered in the proposed new Charter.

"If, by means of this Charter, the College of Physicians of London were made a College for all England, and the College itself improved, in some respects, as to its internal constitution, there is every reason to believe that such irregular practice, as regards the order of physicians, would be put an end to, and not recur again; and that the public would be enabled, which now they are not, to distinguish between qualified and unqualified persons,—that is, between those whose competence to practise has been properly tested, and others whose pretensions have never been inquired into or avouched by trustworthy authority, and of whose qualification there can be no assurance.

"Therefore, on public grounds, and not for mere selfish and corporate purposes, the President and Fellows implore the aid of Her Majesty's Government to obtain for them a new Charter, better suited than that with which they are now encumbered to the present state of society, and to the pressing requirements of the Medical Profession and the public."

M.D., St. Andrews.—The gentleman referred to never wrote such nonsense, It was Dr. Balbirnie who said, "doubtless a similar opposition awaits the Speculum: but we hope for it ultimately a similar triumph, and that it will create for itself a simlar era (as vaccination, the stethescope, &c.,). We go forth its advocate. We proclaim ourselves 'the apostle of the speculum!' With that instrument we link our fate; and by that we will stand or fall!" Putting aside such an absurd effusion as this, Dr. Balbirnie's book may be studied with advantage.

A Lay Reader of the Medical Times.—The common or black elder tree—*sambucus nigra*—belongs to *pentandria trigynia* in the Linnæan classification; its flowers, berries, and inner bark, are officinal substances in the Edinburgh and Dublin Pharmacopœias.

J. Godwin Ingles, Esq.—The tissue of which a cicatrix formed is different from that of the skin,—it is harder, less vascular, and destitute of rete mucosum, so that its whiteness, which is remarkable on the cicatrized skin of a negro, is retained through life, when small cicatrices require to be carefully sought for; but it is scarcely necessary to use a magnifying glass.

M.R.C.S.—Your case is a hard one, but we fear you will find it very difficult to obtain redress.

Dignitas had better make his suggestion to Mr. Harvey personally. Moreover, "Dignitas" has not forwarded his name to us, in confidence, as he should have done.

A Subscriber of Seven Years' Standing.—Yes, if they were in General Practice before 1815. Men who have commenced practice since this date, however, without any legal qualification, will not, of course, be recognised. They will remain what they now are—illegal Practitioners.

Nemo.—The enclosure shall receive our consideration.

Mr. F. G. Hayne, Elland.—The same subjects will be required at the next preliminary examination as were required at the last. The examination will take place on the third Tuesday in July.

Mr. Morris, Ebbw-vale.—The dose for an adult is one drachm in any aromatic water It should be taken after fasting for at least twelve hours. The dose for young children will vary with their age.

COMMUNICATIONS have been received from—

Frederic Collins, Esq., Wanstead, Essex; Robert Ceely, Esq., Aylesbury; Dr. S. Griffith, Charterhouse-square; Richard Allen, Esq., Didsbury; J. R Pretty, Esq., Bayham-terrace; J. M. Churchill, Esq., Colchester; Dr. J. W. Tripe, Commercial-road; Dr. Roods, Bloomsbury street, Bedford-square; Dr. M'William, Trinity-square; Henry Smith, Esq., Caroline-street, Bedford-square; W. Morris, Esq.; John Ince, Lower Grosvenor-place; A Subscriber and an Admirer of the "Medical Gazette" from its Commencement; A Subscriber of Seven Years' Standing, Manchester; E. D. Walker, Esq., Teignmouth; M. D. Londinensis, but not a Candidate.

ORIGINAL LECTURES.

LECTURES
ON THE ACUTE SPECIFIC DISEASES.
BEING THE GULSTONIAN LECTURES.

DELIVERED AT

The Royal College of Physicians.

By WILLIAM JENNER, M.D. Lond., F.R.C.P.

Professor of Pathological Anatomy, University College; Physician to the Hospital for Sick Children, etc.

Lecture III.

Each of the Acute Specific Diseases has preserved, for the last two centuries at least, its Distinctive Characters.—Circumstances which have led to the confounding together Diseases so opposite.—Two great Classes of Cases received into a Fever Hospital as Cases of Fever which do not belong to the order of Acute Specific Diseases: 1st. Diseases in which the Constitutional Disturbance is secondary to some Local Affection, *e. g.*, Pneumonia and Intracranial Inflammation.—The Diagnosis of these Diseases.—2nd. General Diseases not due to a Specific Cause.—Febricula.—Pyogenic Fever.—Pyœmia or the Acute Purulent Diathesis.—Acute Tuberculosis.

A glance at the history of epidemics will render it evident, that each of the acute specific diseases we have now constantly among us, has maintained its identity through a lengthened series of years, in countries most distant from each other, and in climates most varied,—that each has presented, from first to last, the same group of symptoms, and the same order in their appearance,—that no one of them is a new disease.

That the symptoms of small-pox, the order of occurrence of those symptoms, its chief varieties and its complication, are to-day what they were two hundred years since, to go no further back, there cannot be a question. The same is true of scarlatina. In 1650, an epidemic prevailed in Saxony, characterised by general redness of the skin, sore throat, and desquamation of the cuticle, followed by anasarca; and from that time, at latest, we have clear evidence of similar epidemics having every few years prevailed in some part or other of Europe and America:—sometimes arranged with other diseases, as with measles by Morton; sometimes having the mild cases described by one name, and the severe by another, as by Sydenham; sometimes, from one symptom having been very marked in an epidemic, called altogether by another name, as putrid sore throat by Fothergill, and malignant ulcerous sore throat by Huxham; sometimes having other diseases confounded with it, as the *morbus strangulatorius*, which was evidently diphtheritis rather than scarlet fever. Now, having its connexion with anasarca understood, as in the Saxony epidemic and in a Polish epidemic in 1664, and even having had the date at which the anasarca appeared fixed, as by Rosen von Rosenstein; then having the coincidence of the two in point of frequency of occurrence at the same period noted, the connexion between them being overlooked, as by Huxham, who in 1753 described an epidemic, and mentioned that dropsies were frequent during the same constitution of the atmosphere; and then, again, by a third set of writers, having the coincidence in frequency even of the two overlooked. The same evidence of the preservation of its essential characters by measles, might be offered, by tracing accounts left us of epidemics that have visited Europe since that recorded by Forestus, in 1580, to the present time. But it would be useless; the description by Sydenham of the measles of his day will serve for those we witness now. And yet, different as small-pox, measles, and scarlet fever appear to us,—

[No. 708.—New Series, No. 147.]

evident as it is, that the symptoms they now present were those which characterised them in times past, men whose powers of observation were of the highest order, viewing the phenomena of these diseases with the idea pre-occupying their minds that they were identical, long failed to discover any essential difference between them, so that it was only by slow degrees that the specific differences of small-pox and measles were admitted; and Morton maintained the identity of scarlet fever and measles, even when a perusal of his own histories of cases leaves no doubt on the mind, that he not only saw the scarlet fever and the measles that we now witness, but that, then as now, each disease had its specific cause, was generated by emanations arising from those suffering from the same affection, and not by emanations from those labouring under any other disease.

With reference to the steps of the process by which the separation of these three diseases into species was effected they were the same as those by which typhus fever, typhoid fever, and relapsing fever have been in recent times separated into species.

At first, all three were confounded; then one of the three having prevailed for a while in its most perfect form, under the eye of a good observer, an accurate description of that one was obtained; then disputes arose as to the general applicability of the description to the disease in question. It was thought by some to apply to cases to be seen in one epidemic only; but, after a while, epidemics of each of the other two occurred, and good descriptions of these were given; then it was found that occasionally all occurred at the same place at the same time,—that exposure to the emanations of either one only produced the same group of symptoms, and ultimately, that neither disease affected twice the same individual; while, having suffered from one afforded no immunity to attacks of the other; and so the specific character of small-pox, of scarlet fever, and of measles was established.

Louis' work on "Typhoid Fever" was the first great step toward the separation of the continued fevers of Europe and America into species. In that most masterly production is a description of a definite disease, such as has never been given of any other disease.

Then the researches of Gerhard, Valleix, and Steward proved the existence of a fever, having symptoms, anatomical lesions, and a course altogether different from that described by Louis as pertaining to typhoid fever,—and proved, moreover, that two patients might exhibit the symptoms of these two diseases, severally, during the same period of time. Fresh evidence of the same facts was supplied by other observers. In 1843, and again in 1847, Edinburgh suffered from an epidemic of fever. The cases presented the symptoms now commonly known as those of relapsing fever. A disease offering the same symptoms was seen in London at the same periods; but yet numerous cases, during the last-named epidemic, exhibited the characteristic symptoms of the disease known in this country and in America as typhus fever, and of that known in France, America, and England as typhoid fever. It was next shown, that an attack of typhus fever afforded no immunity against an attack of typhoid fever,—that an attack of relapsing fever did not secure the sufferer from an attack of typhus fever, or of typhoid fever; while, finally, it was shown, that the specific cause of each of the three was different, because exposure to the emanations of either species produced only the symptoms of that species.

If, possessed with an idea of the specific individuality of typhoid fever, typhus fever, and relapsing fever, we review the histories left us of the various epidemics of fever that, from time to time, have swept over large portions of this and other countries, it is a task of far greater difficulty to determine to which of those diseases the descriptions of bygone writers apply, than it is to refer to their proper heads the descriptions given us by the historians of epidemics of small-pox, measles, and scarlet fever, when these three diseases were confounded, or imperfectly distinguished.

Nor shall we be surprised at this, when we reflect that the circumstances which favour the spontaneous origin, if such be possible, and the circumstances which favour the spread of all are the same; that the circumstances which favour the origin and spread of these diseases, are just those circumstances which favour the development of the most grave varieties of each; and therefore the development of those symptoms which render their general physiognomy the most nearly alike,—low delirium, a black tongue, abundant sordes, and extreme prostration; symptoms which at once arrested the attention of those who described epidemics in general terms. Again, petechiæ, as is well known, may occur in any disease in which the vital depression is extreme, *e. g.*, malignant measles, small-pox, scarlatina; and the circumstances which promoted the origin and spread of epidemics of fever in years gone by, were just those which cause it to assume a low type, and therefore to be attended by petechiæ; and, still further, the circumstances in question are just those which favour the occurrence of dysentery as a complication of typhus; and, as a consequence, we find descriptions of a fever in which abundant eruption, frequent and bloody stools, and great prostration, were the most marked symptoms.

I may remark, that the chief difficulties experienced in determining the identity of the fevers of past years with those now common arise,

1st. From authors having failed to define the meaning to be attached to the words they employed; *e. g.*, petechiæ, miliary eruptions, and pustules, have been used to signify the most varied appearances.

2ndly. From the very few examinations made after death, and the loose manner in which the lesions found were described.

3rdly. From the descriptions of the epidemics being couched in general terms, so that, if two or more diseases prevailed at the same time, the description was made broad enough to include both.

4thly. From the frequency with which relapses escaped observation, *i. e.*, from the patient falling under the eye of the physician during the first or second attack only.

5thly. From the readiness with which differences actually observed were explained away by the supposed influence of remedies.

But, laying aside some epidemics which cannot, for the reasons just assigned, be referred to either of the species in question, there still remains enough evidence to prove, that neither of these diseases differs from diseases which prevailed more than a century since, and strong reason to believe that all were witnessed two centuries ago.

The symptoms of the new fever that prevailed in London from 1685 to 1690, as detailed by Sydenham, agree pretty closely with those of typhus fever; and from 1708 to our own times, more or less perfect pictures of the same diseases are contained in the writings of Rogers, O'Connel, Pringle, Rutty, Huxham, Hildebrand, Blane, Hecker, Cullen, Barker, Cheyne, and Armstrong.

In reference to typhoid fever, the histories of some of the epidemics of this disease that have visited Europe since 1697 have been collected by Ozanam. Huxham's Essays on the Slow Nervous Fever, and on the Putrid Malignant Fever; Dr. Gilchrist's, of Dumfries, Memoir on Nervous Fever; Dr. Vaughan's, of Leicester, and Dr. Darwin's Letters to Dr. Lettsom, leave no doubt on the mind of the prevalence of typhoid fever in England from 1731 to 1787; while the abstracts of memoirs and the details of cases collected by Gaultier de Claubry show the frequency with which typhoid fever prevailed, at the end of the last and the commencement of this century, in the hospitals and camps of every country which was the seat of war at that period.

Dr. Huck's account of the differences between the spots common in the cases of the Vienna fever treated by De Haen, and called by him "petechiæ," and those present in the cases of the fever Sir John Pringle described, prove that the former was typhoid fever, and the latter typhus fever. It was in answer to the attacks of De Haen on the propriety of his treatment, that Pringle wrote—"I have never considered the gaol or hospital fever and the miliary fever as similar; and, indeed, I may venture to say, that, as the symptoms of the two are so much unlike, they ought to be treated as different in species; and consequently, that neither the theory nor the practice in the one ought to be regulated by analogy from the other."

At the present time there is an epidemic of fever at Croydon, a point connected with which illustrates the difficulty that may be experienced in fixing on the disease intended to be signified by the historians of the epidemics of past times, who speak in general terms. The disease prevailing in the town just referred to has been said to be a new form of fever; and some of the medical practitioners of the town, at least, are of that opinion. Now, the fact is, that the Croydon fever differs in no single point from the typhoid fever which is, and has been for several years, so common in London and many other parts of England; in no point from the typhoid fever of Paris, as described by Louis; in no point from the typhoid fever of America, as described by Drs. Gerhard, Bartlet, Jackson, and Flint.

These preparations from the museum of the College, and these drawings, show the identity of the lesions found in the intestines in typhoid fever in years past and those now witnessed.

A few words will suffice to prove the existence for more than a century of a disease having the peculiar symptoms and course of relapsing fever.

Writing on the weather of 1741, Rutty says: "There was frequently a fever, altogether without the malignity of the disease already described, of six or seven days' duration, terminating in a critical sweat (as did the other also frequently); but in this fever the patients were subject to a relapse, even to a third or fourth time, and yet recovered." In 1800 and 1801 there was an epidemic in Ireland of a fever generally terminating on the fifth or seventh day by perspiration, and when that happened, very liable to recur. Barker and Cheyne's Reports, and Dr. Welch's work on Bloodletting, prove the existence of a similar fever in 1816, '17, '18, '19, and '20, in Ireland and Scotland; while Dr. Christison's testimony goes to show the identity of the type of fever in the epidemic of 1826 with that described by Dr. Welch, and also the similarity of the fever in these epidemics to that prevalent in 1843 and 1847.

But, if these diseases be now, and have been for centuries, different in symptoms, course, and cause, how came it to pass that they were so frequently associated together? and wherein lies the difficulty now felt by some in admitting their individuality?

1st. From some marked characters being common to all, viz., those general symptoms and peculiarities which make it philosophical to combine them into one natural order, and from striking symptoms characteristic of one species being occasionally present in the others; thus, in typhus fever, we may have a blown belly and diarrhœa from the co-existence of inflammation of the intestinal mucous membrane; the rose spots in typhoid fever are sometimes so abundant as to simulate closely the mulberry-rash of typhus fever; while, on the other hand, the rash in typhus fever may consist of a few spots only; and, again, the skin may be free from spots in both the one and the other. In the rashes of typhus fever and typhoid fever, we see the same deviations from their types that we do in the rashes of measles and scarlet fever.

2ndly. From certain varieties of these diseases simulating diseases of another class. When the general disease is not very severe or active in character, and one organ suffers severely, or when the constitutional disturbance and the local disease seem to be in proportion to each other, then the specific nature of the general disease may be overlooked, and the local affection raised to the rank of the primary disease. I have myself, I believe, committed this error repeatedly in regard of typhoid fever, having, accordingly as the cerebral, the thoracic, or the abdominal symptoms prevailed, held the cases to be meningitis, bronchitis, or muco-enteritis.

The 3rd cause of the difficulty felt in admitting the specific differences of these diseases has been, that certain cases of other diseases resemble them generally, and so have been not infrequently associated with them. Just as certain forms of typhoid and of relapsing fever have been from their resemblance generally to some local diseases often ranked with them, so certain forms of other diseases have, from their general resemblance to some of the acute specific diseases, been confounded with them; and so long as the diagnosis of a case of fever is made *per viam exclusionis*,—so long as every case is held to be continued fever in which general febrile disturbance runs high, and no local affection to account for it can be discovered,—so long as acute cases with a hot skin and a quick pulse are termed continued fever *because* the physician can find no other name for them,—so long as the positive diagnosis rests on the presence of general

adynamic symptoms,—so long, that is to say, as a brown tongue, a quick pulse, mental aberration, and extreme prostration, are regarded as *the* characteristic symptoms of continued fever,—so long as *these* are the positive symptoms and *those* the negative symptoms on which the diagnosis rests, so long must a common name be assigned to diseases the most varied in their pathological nature and in their anatomical characters.

For as regards these positive symptoms, they are those of the severest forms of scarlet fever and of measles; they are the symptoms the most prominent in local inflammation in the aged, and in those persons the powers of whose nervous system have been shattered by excesses; they are the symptoms the most prominent in certain forms of acute tuberculosis, and of the so-called acute purulent diathesis; and they may be induced at will by the injection into the veins of certain foreign matters.

But to inquire more particularly into this point: if one looks over a list of the diseases, other than the acute specific diseases, under which patients were labouring when received into a fever hospital with certificates from medical men that they were affected with fever, it is at once seen that these diseases are referable to two classes.

The one comprehends those local affections the direct symptoms of which are masked or thrown into the shade by the prominence or peculiarities of the sympathetic or secondary constitutional disorder.

The other class includes those diseases in which a general febrile condition precedes the development of the local lesions; in which, in fact, the latter bear to the former the same relation that the local changes of structure bear to the general symptoms in small-pox and measles. Of the first class, pneumonia and intracranial inflammations are the most important; of the second, febricula, the purulent diathesis, and acute tuberculosis.

With reference to pneumonia and intracranial inflammation, time permits me only to observe, that it is to typhus fever alone that they bear any striking resemblance, and then only when occurring in persons of mature or advanced years; and in these persons typhus fever—if severe, at least—is attended by mulberry rash. If this fact be considered, and the physical signs of pneumonia be sought for, an error of diagnosis in regard of that affection will indeed rarely be made, even though the patient come under observation in a state of insensibility, and at an advanced period of the disease. In typhus fever, when delirium sets in, headache ceases; and the occurrence of partial paralysis is extraordinarily rare in that disease. If these two facts be added to that just stated in reference to the rash, the differential diagnosis of typhus fever and intracranial inflammations, with general adynamic symptoms, will not present any great difficulty. But excluding these cases, there yet remain three general affections, probably blood diseases, sometimes confounded with the specific fevers, requiring more particular notice. These diseases are—febricula, the acute purulent diathesis or pyogenic fever, and acute tuberculosis.

The following are the characters of a moderately severe, a typical case of

Febricula.—After fatigue, some slight excess, or without known cause; chilliness, with or without rigors; headache; sense of fatigue; pain in the limbs, very quickly followed by a hot and dry skin; the patient, however, rarely complains of a sense of heat; and, if in bed, when the clothes are removed, he quickly covers himself again from the discomfort produced by the cold air; the pulse is frequent, the heart often beating 120 or 130 times in the minute; the tongue is white; the appetite lost; the bowels somewhat confined; the urine scanty and high-coloured; drowsiness is sometimes present, but not infrequently the patient suffers from want of sleep. In young children, a little wandering may be observed on first waking, or when about to fall asleep; and the little patient often talks while dozing. A physical examination of the thorax and abdomen demonstrates no deviation from health. The symptoms present on the first day continue, and sometimes increase in severity, for four or five days. About the end of the week a crisis occurs; most commonly an abundant perspiration, not infrequently an herpetic eruption about the lips; vomiting, diarrhœa, or hæmorrhage from nose, uterus, or rectum; and then, in twenty-four hours or less, the patient is well.

As to particular cases, sometimes one symptom, sometimes another, is more marked than in the typical case I have so briefly sketched. I have seen the delirium or the vomiting give a character to the disease. The duration of this disease is sometimes less than forty-eight hours, and it is then called ephemera by some authors. In other cases it continues for nine or ten days, and such cases have been termed synocha, synochus, la synoque non putride, la synoque plethorique, inflammatory fever, etc.

In some cases of febricula, an eruption of pale, bluish-coloured spots, neither elevated above the level of the surface nor affected by pressure, is observed; these are the *tâches bleuâtres* of Forget and other French writers. They bear no resemblance to the rose-spots of typhoid fever, nor to the mulberry rash of typhus fever. They are not confined to cases of febricula. I have seen them well marked in typhoid fever. They are therefore not characteristic of febricula.

Febricula is essentially a non-contagious and sporadic affection; however, now and then, it has reigned as an epidemic: thus Ozanam refers to two great epidemics; the one described by Ingrassia, of Palermo, which occurred in 1557; and the other, the particulars of which were recorded by Hoyer, of Mulhausen, in 1700. Full descriptions of this affection are to be found in almost all writers, from Hippocrates to those who flourished at the commencement of the present century. About that time the influence of pathological anatomy on medical doctrines began more especially to be felt, and men hesitated to admit the existence of any essential fever, of any disease which the scalpel did not enable the anatomist to refer to some change of structure; and as febricula never proves fatal unless by complications established in its course, its existence was held to be apocryphal, and those who maintained its occurrence were regarded as bunglers in the art of diagnosis,—as men who overlooked the local lesion, and raised the sympathetic constitutional disorder to the rank of a substantive disease.

The recognition of the existence of febricula is, however, of considerable importance in regard of the advance of the science of medicine, for two reasons especially: first, because by an acquaintance with its phenomena the physician is prevented falling into serious errors in over-estimating the effect of remedial agents in the treatment of the acute specific fevers; and, secondly, because in its course local inflammations are very frequently set up which experience, or appear to experience, a more or less marked abatement when the general affection has run its course, and the physician is in these cases led to overrate the potency of the drugs administered; and as the supposed effects are striking in character, the impression produced on the mind is proportionably strong; or, he is led to under-estimate the severity, speaking generally, of the local inflammation, because it, in this striking case, did well without treatment, or under treatment singularly in opposition to received doctrines.

I remember a case of this kind I was once suddenly requested to see in the absence of the physician in attendance. The patient, a strong made man, about 45 years of age, was suffering, as I supposed at the time, judging from the signs and symptoms then present, from primary sthenic pneumonia. He was taking, under the direction of the physician, two ounces of sherry every six hours. No loss of blood had been practised. The skin was hot, the pulse quick, the cough troublesome. I did not, under the circumstances in which I was placed, feel justified in adopting any active treatment. A few hours subsequently, the man sweated freely, and on the following day appeared, so far as his general symptoms were concerned, well.

The sudden cessation of the general symptoms in a case of pneumonia, on or about the seventh day of disease, by profuse sweating, would excite in my mind strong doubts in regard of its primary nature.

With reference to the symptomatological affinity of febricula, it is evidently closely allied to relapsing fever; but it differs from it etiologically, and, therefore, specifically. It has no power of generating a substance capable of reproducing its own phenomena in a healthy individual. Symptomatologically, again, it is more or less closely allied to the acute purulent diathesis or pyogenic fever and acute tuberculosis; but anatomically it differs from these in the most absolute manner.

[To be continued.]

A COURSE OF LECTURES ON ORGANIC CHEMISTRY,

DELIVERED IN THE

Laboratory of the Royal Institution of Great Britain.

By DR. A. W. HOFMANN, F.R.S.

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Lecture VI.

Upon examining closely into the mode of combination exhibited by mineral substances, it is not difficult to perceive that, in respect to most of them, a binary disposition of the constituent elements prevails. This binary arrangement may be traced even in those mineral compounds which are remarkable for the variety of their elements, and for the complex nature of their composition. Potassa, alumina, sulphuric acid, water, are binary substances, and are generally distinguished as binary compounds of the first order, inasmuch as they contain the smallest number of elements capable of forming a compound; viz., two. Both potassa and alumina combine with sulphuric acid, two salts, sulphate of potassa and sulphate of alumina, being produced. These are binary compounds, consisting of binary substances, or binary compounds of the second order. Combination again takes place between sulphate of potassa and sulphate of alumina, the result being the substance well known by the name of alum, which thus becomes a binary compound of the third order. Lastly, alum is still capable of uniting with a farther binary compound,—with water; crystallised alum, a binary compound of the fourth order, being thus generated. A glance at the subjoined diagram will render this binary disposition of the elements in alum even more perspicuous:—

Potassium. Oxygen. Sulphur. Oxygen. Aluminum. Oxygen.

Potassa. Sulphuric acid. Alumina.

Sulphate of potassa. Sulphate of alumina.

Hydrogen. Oxygen.

Water. Anhydrous alum.

Crystallised alum.

Chemists endeavour to represent, even in their chemical formulæ, this binary disposition of the elements, which they assume in mineral compounds, and the assumption of which, as you readily perceive, is chiefly based upon the ordinary modes of producing these compounds. Instead of representing the composition of alum simply by the formula—

$$K\ Al_2\ S_4\ H_{24}\ O_{10}$$

they endeavour to represent the supposed arrangement of the elements in alum, the chemical construction of the alum (if I may use this expression) by the term—

$$KO, SO_3; Al_2\ O_3\ 3\ SO_3; 24\ HO$$

In organic substances this binary plan of combination is less perceptible. That it obtains in a great many of them is obvious enough. I need only remind you of the numerous class of organic salts, consisting simply of an organic acid and an organic alkaloid, and which, in their deportment, closely imitate the character of mineral salts. Let us again take as examples the compounds which have repeatedly served us as illustrations.

The salt resulting from the combination of benzoic acid and aniline, is, in all its bearings, a binary compound. It is proved to be such, both by the manner in which it is formed, and by the manner in which it is decomposed. On adding hydrochloric acid, a strong mineral acid to this salt, benzoic acid is separated; addition of an alkali, of potassa for instance, separates the base, the aniline. From this deportment, it would be evident, that benzoic acid and aniline are the proximate constituents of benzoate of aniline, even if the constitution of this compound was not indicated by the manner in which it is formed.

What, however, may be asked, is the constitution of benzoic acid and aniline itself? In a previous lecture we have determined the composition of these substances by analysis. We have likewise established their equivalents or their formulæ, and found them to be respectively $C_{14}\ H_6\ O_4$ and $C_{12}\ H_7\ N$.

Now, are the elements of these substances bound up, as it were, into a single whole, or is it possible to trace still farther the mode of combination, which, as you have seen, characterises the mineral compounds?

Chemists were long of opinion, that most organic bodies were simply formed by the juxta-position of their carbon, hydrogen nitrogen, and oxygen, without any farther subdivision; and that this very absence of binary construction constituted one of the distinguishing characters of organic substances.

The progress of science has led to a different result. A more intimate study of a great many compounds has proved, that their deportment may be best explained by assuming in them certain groups of elements held together by peculiar attachments. Organic substances thus are no longer believed to consist simply of carbon, hydrogen, nitrogen, and oxygen, but of several molecular groups, composed of carbon and hydrogen, of carbon and nitrogen, etc., which represent, in these substances, as it were, the elementary constituents of mineral bodies.

These molecular groups are generally designated by the term organic radicals, which I have no doubt is more or less familiar to you.

The characters of these organic radicals vary very considerably; some of them imitate the deportment of the non-metallic substances of hydrogen, chlorine, etc.; others present in their behaviour great analogy to the metals. Most of these radicals are known only in combination; their existence is chiefly inferred from the manner in which substances are acted upon by other bodies; several are known in the free state.

I must not omit to mention, that there is still a very considerable number of organic compounds in which, hitherto, no radical has been traced, the molecular constitution of which is as yet perfectly unknown.

This evidently arises from the fact of these substances not having as yet been sufficiently studied. If we glance at the gradual, but steadily progressive manner in which light has been thrown upon the constitution of a large number of substances, the nature of which was perfectly dark and unintelligible but a short time ago, there is every reason to hope, that the continued exertions of chemists will soon trace the constitution even of these bodies, the molecular arrangement of which has not been revealed up to the present moment.

Without, however, dwelling any longer upon the general characters of organic radicals, which must remain more or less unintelligible to you so long as you are unacquainted with individual compounds which might serve as illustrations, let us proceed at once to the study of the simplest organic radical which is known, namely, to that of cyanogen.

Cyanogen consists of carbon and nitrogen; it contains two equivalents of the former, and one equivalent of the latter element. Its composition is represented by the formula $C_2\ N$.

The preparation of cyanogen is very simple. You will understand it at once if I remind you of one of the processes for making oxygen, which consists in heating oxide of mercury. Under the influence of heat this compound splits into mercury and oxygen. The substance which serves for the preparation of cyanogen is cyanide of mercury, a beautiful salt, which crystallizes in long white needles. On heating this salt in a retort, or simply in a tube provided with a delivery-tube, it is decomposed. You observe that mercury is sublimed into the upper part of the tube, while a colourless, transparent gas is obtained, which we collect over mercury. This gas is cyanogen. Mercury and cyanogen are not the only products of this decomposition. However carefully the process may be carried out, there remains invariably in the retort a certain quantity of a brown powder, the analysis of which has led to the curious result, that it has exactly the same composition as cyanogen itself, from which its properties differ very strikingly. This brown body, which I must dismiss for the present, but which I may have to notice again, is known by the name of *para-cyanogen*.

The properties of cyanogen are very marked and characteristic. Cyanogen, as you observe, is transparent and colourless,; it has a peculiar, very pungent, but not disagreeable odour; it produces lachrymation. It is inflammable, burning with a beautiful violet-coloured flame, which is very characteristic, and may be exhibited simply by lighting

the gas in a cylinder, or, more effectually, by burning it from an ordinary burner, fixed upon a little gas-holder consisting of a common Woolf's bottle, into which we allow mercury to flow from a funnel-globe, provided with a stop-cock. It is the carbon alone, which combines with oxygen in this combustion, producing carbonic acid. This may be readily detected by pouring lime-water (the well known test for carbonic acid) into one of the cylinders in which the cyanogen has burnt; nearly the whole of the nitrogen escapes in the free state.

Cyanogen is much heavier than atmospheric air, its specific gravity being 1·86. It may be decanted from one vessel into another, exactly like carbonic acid. If a burning candle be placed at the bottom of the cylinder into which we decant the gas, the cyanogen is lighted as soon as the gas reaches the flame, and a slght explosion takes place owing to the atmospheric air, with which the cyanogen becomes mixed.

Cyanogen is one of the gases which may be reduced to the liquid state, by a diminution of temperature, and by increase of pressure.

The common method of liquefying cyanogen consists in disengaging it under pressure in strong sealed tubes. This experiment was first made by Mr. Faraday; and I hold in my hands a tube of this kind, for which I am indebted to his kindness. The longer limb, in which the cyanide of mercury was heated, contains the mercury and the paracyanogen; while, in the shorter one, which plunges into a freezing mixture, the cyanogen is liquefied. At very low temperatures, the liquid cyanogen actually solidifies into a beautiful crystalline mass.

The behaviour of cyanogen, when coming into contact with other bodies, deserves your particular attention. A few experiments will readily convince you, that it imitates, in a striking manner, the properties of a group of *elements* known by the collective term of *halogens*, and which embraces chlorine, bromine, and iodine. These elements are more or less soluble in water and alcohol. These liquids also dissolve cyanogen, as may be made obvious by forcing a small quantity of water and alcohol into tubes filled with this gas, and inverted over mercury. It is owing to this solubility in water, that chemists are compelled to collect this gas over mercury.

Like chlorine, bromine, and iodine, cyanogen combines directly with the metals. For the purpose of comparison, I will heat a little ball of potassium in iodine-vapour, and another in a current of cyanogen issuing from the same little gas-holder from which the cyanogen was burnt. You observe that the combination takes place in both cases with equal intensity. Not less similar are the compounds produced by these combinations. In both these processes we obtain white salts, specimens of which, prepared by other processes, are contained in these bottles. Both salts (called by chemists, respectively, iodide and cyanide of potassium) exhibit exactly the same crystalline form; they are generally cubes, but they frequently present octohedral surfaces. Both are extremely soluble in water, producing, while dissolving, a considerable degree of cold. On adding nitrate of silver to these solutions, there is formed, in both cases, a white amorphous precipitate, respectively of iodide of silver and cyanide of silver, perfectly insoluble in dilute acids. These silver-precipitates are both decomposed by sulphuretted hydrogen; the silver is converted into black sulphide of silver, while iodine and cyanogen combine with hydrogen, producing two acids, which you know as hydriodic and hydrocyanic acids, which also present a remarkable analogy in their properties.

There is no difficulty in tracing the analogy of cyanogen with chlorine, bromine, and iodine, in many other directions. You recollect, that these elements are readily absorbed by the alkalies. Chlorine, when absorbed by a dilute solution of potassa, furnishes a compound well known as *eau de Tavelle*, which is valued as a powerful disinfecting agent.

The re-action which takes place under these circumstances produces two compounds, chloride of potassium and a compound of potassium, with both oxygen and chlorine, namely oxychloride of potassium, or better known by the name of hypochlorite of potassa.

$$\begin{array}{|K\ O} \\ \hline Cl\ K|O\ Cl \end{array}$$

Now, cyanogen is absorbed with the same facility by potassa, and the result is likewise perfectly analogous. One atom of potassa is decomposed under the influence of two equivalents of cyanogen; there are formed cyanide of potassium and oxide of cyanogen, (cyanic acid,) which, uniting with an excess of potassa, produces oxycyanide of potassium or cyanate of potassa.

These several combinations and re-actions are so analogous, that we may actually forget that cyanogen is a compound body. Chemists have agreed to represent the formula of cyanogen, $C^2\ N$, by the symbol Cy, whereby the analogy is rendered even more conspicuous, as will be obvious by a glance at the subjoined diagrams, which exhibit the compounds and re-actions which I have quoted:—

Iodine—	I	Cy—Cyanogen.
Iodide of potassium—	K I	K Cy—Cyanide of potassium.
Iodide of silver—	AgI	AgCy—Cyanide of silver.
Hydriodic acid—	H I	H Cy—Hydrocyanic acid.

Action of Chlorine upon Potassa.

$$2KO + 2Cl = K\,Cl + KO, Cl\,O$$

Action of Cyanogen upon Potassa.

$$2KO + 2Cy = KCy + KO, Cy\,O.$$

It would be easy to quote a number of additional facts to illustrate this point more fully, but one more may be sufficient.

It is well known, that chlorine, bromine, and iodine form compounds with one another. By introducing iodine into chlorine gas, a yellow crystalline compound is formed, which is the chloride of iodine. In a similar manner, cyanogen combines with chlorine, bromine, and iodine, forming a series of very remarkable compounds, which are obtained with more or less facility.

For the purpose of illustration, it may be sufficient to prepare the iodide of cyanogen, which is readily produced by introducing powdered iodine into a hot solution of cyanide of mercury. The iodine combines both with the mercury and the cyanogen; magnificent needles of iodide of cyanogen subliming into the neck of the flask, into which, in order to avoid loss, an adapter has been fixed; whilst scarlet iodide of mercury remains behind.

From all these experiments it is evident, that cyanogen is the very type of an *organic radical*.

Cyanogen forms an almost unlimited number of compounds and products of decomposition, which belong to the most interesting substances of organic chemistry. I greatly regret, that the limited time at my disposal will permit me to notice briefly only some of the most important of them.

Our attention is immediately fixed by hydrocyanic or prussic acid. A method of preparing this acid from cyanide of silver has been already indicated. Instead of cyanide of silver, however, chemists generally use cyanide of mercury, which is likewise readily affected by hydrosulphuric acid.

By introducing this cyanide of mercury into a long glass tube, and passing a slow current of sulphuretted hydrogen over it, the mercury-compound is blackened, while the pure hydrocyanic acid is evolved in the form of gas, and may be condensed in a tube surrounded by a frigorific mixture. I have arranged the apparatus which is generally employed in making this experiment; but I refrain from actually performing it, on account of the great danger which attends this operation, unless exclusive attention is paid to it. The hydrocyanic acid, as furnished by this process, is anhydrous. It is an exceedingly volatile liquid, boiling at a temperature far below that of the animal body. The vapour has a penetrating odour, somewhat similar to that of bitter almonds; it burns with a pale violet flame, carbonic acid and water being produced, while the nitrogen is set free, as in the combustion of cyanogen.

Hydrocyanic acid is one of the most powerful poisons known, and must be handled with the greatest precaution, especially when in the anhydrous state.

I have here prepared an experiment which exhibits the instantaneous rapidity with which the vapour of this compound when inhaled destroys animal life.

Anhydrous hydrocyanic acid is but rarely prepared. It is generally obtained with water; this poison, like so many others, affords an excellent remedial agent, when given in small doses, and properly diluted.

Dilute hydrocyanic acid is often procured from cyanide

of potassium, which, when distilled with sulphuric acid, forms sulphate of potassa and hydrocyanic acid.

Far more frequently, however, this acid is obtained from a salt, of which cyanide of potassium is a constituent, and which, manufactured as it is on an immense scale for the purposes of the dyer, is the cheapest source from which this acid can be procured. This salt is ferrocyanide of potassium, better known to the commercial world as "yellow prussiate of potash," to the formation and properties of which I shall have to call your attention bye and bye. The operation is performed in a retort, provided with a good condenser, the receiver being surrounded by ice-cold water. The action of sulphuric acid upon ferrocyanide of potassium is rather complicated. The simplest view which can be taken of it, is to consider ferrocyanide of potassium as a double salt of cyanide of potassium with cyanide of iron, and to assume that cyanide of potassium is decomposed by sulphuric acid in exactly the same manner as if it were free, while the cyanide of iron is not acted upon. This explanation is, however, not absolutely correct.

To pharmaceutists it is of great importance to know exactly the strength of an acid which is to be employed for medicinal purposes. Many directions have been given for obtaining acids of a definite strength, which vary only in the proportions of the substances used in the operation. It is, however, very difficult to obtain a definite acid by any one of these methods, and the best plan is always to determine the strength of a given acid by an actual analysis, and to dilute it accordingly. This analysis is exceedingly simple. All we have to do is to precipitate a known weight or volume of the acid, with an excess of nitrate of silver; cyanide of silver is thus produced which is collected upon a filter, washed and weighed. From the weight of the precipitate, the amount of hydrocyanic acid is calculated without difficulty.

Dilute hydrocyanic acid cannot be preserved very long, especially when perfectly pure; the colourless, transparent liquid soon becomes brown, and ultimately quite opaque. The changes which occur under these circumstances are very complicated and scarcely sufficiently understood. It has been observed, that the addition of a few drops of a mineral acid, as of hydrochloric acid, renders the hydrocyanic acid more stable.

In its chemical relations hydrocyanic acid closely resembles hydrochloric, hydrobromic, and hydriodic acids. When treated with metallic oxides, the hydrogen of the acid combines with the oxygen of the base to form water, while the cyanogen unites with the metal, a cyanide being produced.

Of the cyanides, the cyanide of potassium and the cyanide of mercury are the most interesting.

The former is but seldom prepared by saturating hydrocyanic acid with potassa. This mode is never adopted except in the rare event of this salt being required in a state of absolute purity. It is generally extracted from the commercial yellow prussiate of potash by a process which was suggested by Liebig, when this salt became of great practical importance in electro-plating. Cyanide of potassium forms a soluble double salt with cyanide of silver, which is obtained by adding cyanide of potassium to nitrate of silver, until the precipitate produced in the commencement is re-dissolved again. This salt is readily decomposed by the electric current, and furnishes a beautiful bright silver surface. It silvers even without the aid of electricity, but the layer of silver deposited is exceedingly thin. Since this important application, cyanide of potassium, which but a few years ago was a curiosity of the laboratory, is manufactured by tons, and it is not uninteresting to observe, that the service which chemists have rendered to the arts by discovering cheap and easy processes of producing cyanide of potassium, have been amply repaid by the introduction into the laboratory of this excellent re-agent, which may now be employed for a great variety of processes for which it never could have been used, unless a great industrial application had reduced its cost of production. The use of cyanide of mercury is chiefly confined to the laboratory; as you have seen at the commencement of this lecture, it is employed in preparing cyanogen. Cyanide of mercury is usually produced by treating oxide of mercury with dilute hydrocyanic acid, in which it is easily soluble. On evaporation, beautiful white needles of cyanide of mercury are deposited.

In the next lecture we shall continue the study of the cyanogen series.

ORIGINAL COMMUNICATIONS.

REPORT OF CASES
FROM THE
ROYAL HOSPITAL OF BETHLEM.

By Dr. W. C. HOOD,
Medical-Superintendent.

No. I.

Case 1.—MANIA ARISING FROM DYSMENNORHŒA.

No. 78, Female Register.—This patient, aged 34, was admitted on the Curable Establishment, December, 1852, in a high state of maniacal excitement. She was certified to have been married four years, but as having had no children. She is of sanguine temperament, naturally cheerful and amiable, and has received a liberal education; her habits of life are reported to have been temperate and regular. From the statement of her family, it appears that, fifteen months ago, she miscarried at an early stage of pregnancy, and has since then suffered considerable pain for some days previous to each catamenial period. The secretion was deficient in quantity, and its character abnormal. At these periods, when complaining of pain, there was much cerebral excitement, which was relieved by the catamenial flow, which she always succeeded in hastening by using warm baths, applying hot fomentations, and taking mild, laxative medicines. About fourteen days before her admission, the usual catamenial period was ushered in with pain, restlessness, and much mental disturbance. The accustomed remedies were had recourse to, but in vain; they failed to relieve her of pain, and her constant suffering deprived her of sleep. The third night she suddenly jumped out of bed, and, awakening her husband with a frantic scream, declared that she was mad. Imagining her to be hysterical, he bathed her head, administered ammonia and nitre, and endeavoured to soothe and tranquillise her, but without success. She continued wild and excited, complained of pain in the head, and of the globus hystericus. The medical attendant who saw her, prescribed antispasmodics and laxatives, which failed to relieve her. From that day to the period of her admission, she became more violent in her conduct, and more incoherent in her conversation.

Upon admission, she was in a state of great excitement; her conversation was wild and incoherent; pulse small and quick; bowels constipated; the expression of countenance timid, indicating want of rest; and the surface of the body was cold and clammy. She was immediately put into a hip-bath, and the following draught was ordered to be taken, and repeated in two hours if sleep was not produced.

℞ Morphiæ acetat. gr. i., tinct. lupuli 3j., syrup. aurant. 3j., mist. camph. 3x. M., ft. haustus.

The following morning—

℞ Ol. ricini 3vj.

Sleep was obtained without the second draught, and the bowels were freely opened the following morning. In this state she continued for some days, still being unable to concentrate her ideas for the purpose of conversation. In a short time, however, under a system combining generous diet, regular exercise, and the moral discipline of the asylum, she became tranquil in manner, rational in conversation, and evinced a disposition to occupy herself in reading, writing, and working. About a month after her admission she again became restless and excited, complained of pain in the back and inguinal region, which had been with her the usual forebodings and premonitory symptoms of painful

menstruation. A warm bath was now ordered, and the following pills to be taken three times a-day :—

℞ Pulv. ipecac. gr. ij., extr. hyosc. gr. iv. M., ft. pilulæ ij.

The pills had the desired effect; they relieved the pain, and the catamenia appeared, and passed away without any undue irritation or suffering. The next month, at the proper period, the catamenia re-appeared without any abnormal symptoms; and it was satisfactory to observe, that, during the menstrual interval, her health and spirits improved, and her mind regained its equilibrium. She left the hospital perfectly well, after a residence of twelve weeks, and has not, I understand, had any relapse.

Case 2. — MELANCHOLIA, WITH CONTINUED LEUCORRHŒA, AND AMENORRHŒA.

No. 72, Female Register.—This young woman, aged 24, was admitted in November, 1852, in a low and very melancholic state; certified to have been married; has had no children; is of obliging and affectionate disposition, and of temperate habits. Her general health previous to insanity was good; but she is of melancholic temperament, and reported to be suicidal. Her memory, however, is unimpaired, and she has excellent natural abilities. This is the second attack, and assumes the same characteristics as those which were presented during her previous mental indisposition, which lasted over a period of four months and a-half, and was followed by twelve months' convalescence. The premonitory symptoms on the present occasion appeared about six weeks ago, and assumed much of the character of hysteria. She evinced extreme apathy, inability of conversation, and the attempt to speak on any subject continuously was followed by hysterical sobs; but, if left unheeded, she would, in a taciturn and sluggish manner, employ herself in needlework, or some domestic duties. Upon admission, she was placed in a quiet ward; ordered decoct. aloes co. cum mist. camph., porter, etc.; and instructions were given to the nurses to encourage her as much as possible in occupying herself. In the middle of January the catamenia returned, and a visible improvement was soon manifested in her appearance. She voluntarily resolved to occupy herself, and direct her thoughts in every possible way from that inward state of reverie in which she was disposed to become absorbed. This mental resolution she maintained with great self-control, and this so materially expedited her recovery, that in three weeks she was discharged quite cured. It should be added, that, during her residence, the leucorrhœa entirely ceased,—regular menstruation ensued,—her general health improved,—as the cloud passed from her mind, her countenance assumed a cheerful expression,—she became stronger and stouter, and left the hospital greatly improved in personal appearance.

Case 3.—MELANCHOLIA DEPENDING ON PROLONGED LACTATION.

No. 82, Female Register.—This woman, 39 years of age, was admitted in December, 1852, in a depressed and very melancholy state. She was certified to have been married, and has had two children. Her countenance on admission was without expression. Her answers, when spoken to, were in a feeble and low tone of voice. The circulation was very languid, and her system generally in a state of great torpidity. The catamenia were reported to be regular. This low, almost anæmiated condition, it was stated, had been produced by extreme lactation, which had exhausted the vital energies. She was, however, predisposed to melancholia, and on several occasions evinced a desire for death, not from any decided suicidal propensity, but from a general loathing and dislike to the cares of life, the *ennui*, or rather *tædium vitæ*, so frequently described by medical authors, oppressed her. In this case little medicine was administered. Her constant restlessness demanded, in the commencement, strict and constant vigilance. She soon, however, derived benefit from cheerful employment, and exercise in the open air; and in addition to the regular full diet of the hospital, she was ordered a pint of porter daily. Under this treatment she rapidly improved. She became cheerful and industrious, and left the hospital after a residence of scarcely nine weeks, perfectly recovered.

[To be continued.]

PARALYSIS.—CHOREA.

By JAMES JOSEPH COPPINGER, M.D.

Ma. K——, aged 84, in height five feet six inches, tolerably robust, sanguine temperament, short neck, of active yet temperate habits, and a man uniformly healthy, had some angry words with a tradesman, which considerably excited him. He retired to bed, apparently in his usual health and spirits; and next morning, he found, on attempting to get out of bed, he had lost the use of his legs. When his daughters arrived at his chamber, they were shocked at his appearance, evidencing a certain degree of fatuity, with difficulty of utterance; and he would have fallen, had they not supported him by the arms. I saw him at 12 o'clock, noon this day (December 15, 1852) :—Decumbitus dorsal, face, forehead, and vertex (he is bald) same colour as in health, viz., pinkish; head hot; no headache; knees, legs, and feet, rather cold; abdomen, chest, and arms, natural heat; no dragging of mouth to either side; when putting out the tongue, it curls on itself towards the frænum, and then, with effort, the tip is brought up over the lower lip; seems a little deaf; tongue coated with a dense white fur, except the bare tip; pulse soft, full, regular, equal—64; no demonstrable trace of valvular or other disease of the heart; lungs perfectly healthy; bowels three times affected yesterday, (*i. e.*, the day of the altercation,) not since; lies tranquilly in bed; when asked, he can move his legs up and down while in the horizontal posture, but when he attempts to stand, his legs totter and his knees yield under his weight, and, as I said above, he must be supported by the arms. Not to trespass too much on your valuable space, the case went on, with more or less imbecility, up to January 10, 1853.

On the 31st December I made the following notes:—Up to the 28th (just one fortnight from the seizure) the tongue had a persistent white coat; it began to clean then for the first time, simultaneously with an altered colour and consistence of fæces. I say an altered colour, because all the evacuations from the outset were intensely black, with a faint gloss of green, or resembling that kind of black silk which is said by ladies to be "shot with green," consistence fluid, and of odour most atrociously fetid. Kidneys acted well, except for the first five or six days of his illness, when the urine was scanty and loaded with lithates. On this day (viz., 28th December) choreic movements commenced, without alteration of utterance or of maudlin expression of face. When you looked at him, you would say, he is just as I found him on the day before (the 27th), but the moment you folded down the bedclothes to feel his pulse, or to give him anything to drink, or to assist him to the night-chair, away his arms went to and fro across his chest, to the imminent risk of inflicting an unintentional blow upon either side of his face, alternated with a rapid rotation of his head upon the pillow, say for about five minutes, and a no less rapid rotation of his trunk. After this date, he occasionally, but rarely, would spring up suddenly into a sitting posture in bed, remaining for a minute or two, and lie down again. Up to January 5th, on certain days and nights he became absolutely worrying to his attendants, insisting on getting out of bed every quarter of an hour or so, without aim or object. He was resisted in these whims as much as possible; but, when he did sit up, he had a more imbecile, more maudlin expression of face; nor was he seated five minutes when he wished to be assisted back again to his bed. I omitted to state earlier in this report, that his tongue (on the 28th December) lost that slow, curling character of protrusion for the characteristic jerking thrust of chorea. After the 6th January, this troublesome tendency to get out of bed ceased wholly. The jerking of his arms, rotation of head and trunk, daily diminished up to January 20th, after which they disappeared. The difficulty of utterance gradually diminished up to February 1st, after which, I find, that he speaks as well as before the seizure. The paraplegia, however, is still present, but he can "work with sinuosities along," if supported by his two daughters, resembling what is called "beriberii" by the natives of the East Indies, which may be translated, "sheep-movement." Those who are seized with it," says Dr. Thomas, (in his "Practice of Physic," 4th Edition, 1813, p. 277,) have a tottering of the knees, and a peculiar manner of walking, resembling the gait of that animal."

Feb. 19.—Paraplegia has wholly disappeared; he walks up and down stairs and about the house as usual: has dis-

missed with contumely his barber; in short, requires no further assistance at his toilet. Appetite excellent; sleeps well; kicked hot jars indignantly from his bed, and is taking car-exercise, weather permitting.

22nd.—He walked from his residence on the hill to-day unattended down to the beach, and appears as fresh and as well as ever.

A word about treatment. Up to 26th December, calomel, turpentine, six grain doses of scammony, croton oil; the turpentine in draughts as well as by enema; the early insertion of seton in neck; hot stupes to forehead and vertex, which I found produced sleep; strong, stimulating embrocations to soles of feet, toes, insteps, up the legs to knees, the use of long worsted stockings and flannel knee caps, occasionally dusting the stockings and knee caps with dry flour-of-mustard, frictions to spine, to hepatic region. Internal stimulants were equally necessary in the case, such as sp. ammon. and sp. ammon. comp., with "mist. sp. vini. Gallici," chicken and beef broths, etc. When chorea set in, I added to these last valerianate of zinc, and recommended a stream of cold water from the pipe of a kettle to be carried rapidly up and down the spine three or four times, to be followed by brisk friction. This he allowed them to do but once. He would not submit to the ordeal again. On the 6th January, the last application of a chloroform liniment was tried upon the spine, the form as recommended by M. Gassier, *Bulletin de Therapeut.*, viz., equal parts of oleum olivæ and chloroform. It remained to persevere in frictions, to regulate the digestive tube, to support the strength, to keep the seton discharging. The hint of hot stupes to head I derive from Dr. Graves, in his lectures on Fever, and I hereby thank him for the hint. They were applied with a single, *i. e.*, unfolded piece of linen.

What is the *rationale* of this and similar cases, either complicated or uncomplicated with paralysis? Why should chorea attack children more frequently than adults? Does the anatomical fact, that "the younger the subject the more marked is the grey substance in the spinal chord," (Harrison,) or the fact, that the grey substance becomes voluminous in proportion as feeling and motion are developed, (Copeland's Notes to Richeraud—Ollivier's opinion,) afford us any clue to them? What is its appearance in the older subject? Why should it be more marked in the younger subject? Why should it become voluminous, etc.?—what its nature?—what its function? Shall we say with Rolando (Copeland on Richeraud), that the cerebro-spinal is an electric apparatus? And shall we construct an imperfect imitation of it with copper, zinc, an acid fluid, and a vertebral canal of glass, wood, or ivory, and forthwith experimentalise with it? Or, without an attempt at this, or at further research, shall we say, in a fit of utter despair, with Marshall Hall:—"Of what takes place within the structure of the spinal marrow, on which might well be written the word mystery, we are still ignorant?"—("On the Nervous System," p. 13.) Well, then, as long as we admit our ignorance of this matter, it is plain that no reliable solution can be given of the multiform difficulties with which it is encompassed. Here was "hidden seizure" arising in sleep, or the "inorganic apoplexy" of M. Hall. How was paraplegia connected and coinstantaneous with it? Is it to be considered a catastaltic or diastaltic effect? If catastaltic, then these paraplegic affections cannot be so constantly independent as they are said to be. If diastaltic, through what source or sources has this manifestation been produced? We have seen the function of nutrition suddenly arrested, and that it continued so for a fortnight, together with an accumulation of black vitiated bile in the gall-bladder.

With regard to the chorea, how is the supervention of this to be accounted for? That chorea is derivable from some cerebral influence, previously or subsequently developed, or latent, appears to be warranted by facts. Many medical men have known paralysis to have sometimes followed, sometimes preceded, an attack of chorea in children. Nay, Dr. Thomas and his contemporaries considered chorea to be rather of a paralytic than convulsive nature. A late writer, if he do not go as far as Thomas, asserts, "that an after-effect of chorea in children is paralysis," adding, that, "occasionally, this paralytic state occurs as a precursor to the choreic attack, but this is rare." (Dr. R. B. Todd, in "Braithwaite's Retrospect," Vol. XXVI., p. 31). Bear in mind, Dr. Todd says not a syllable of senile chorea! Then, if the precursory paralysis be rare in children, it must be still more rare in advanced life, unless, in attempting to strike an analogy between juvenility and senility, we say, here is childhood still, albeit second childhood; or, to use the more apposite and happier language of Dr. Graves, on a case of chorea in a man of seventy he saw with Dr. Ireland:—"Thus do diseases of the nervous system, like the waning intellect, affect a second childhood." ("Clinical Medicine," Second Edition, Vol. I., p. 537.)

Queenstown.

ON THE ARREST OF CONTINUED FEVER BY CINCHONISM.

By J. OGDEN FLETCHER, M.R.C.S.E.
Surgeon to the Manchester Union Fever Wards.

We are indebted to Dr. Dundas for this new light on the treatment of continued fever; and I hold it to be the duty of all medical men, who may enjoy the opportunity of testing its truth, to submit the results of their experience to the Profession.

I had long been convinced of the great good produced by the administration of quinine in the early stages of uncomplicated typhus fever. In the Manchester epidemic of 1847-48, its effects were highly beneficial; and I was led to the conclusion, that in all cases of fever where there was a tendency to bowel complication, (a very general one in this district,) the early administration of quinine would certainly check, if not cut short, the disease.

Since I became aware of the views of Dr. Dundas, I have followed them out in all uncomplicated cases of typhus fever; and the result of my experience in eighty cases admitted into the Manchester Union Fever Wards is briefly as follows:—

1st. In the majority of the cases, cinchonism established a permanent convalescence within forty-eight hours.

2ndly. In the cases where the typhoid character was established prior to the use of the remedy, five-sixths were convalescent within fourteen days.

3rdly. In children and patients under puberty, suffering from uncomplicated typhus, nine-tenths were discharged cured within fourteen days.

4thly. In cases complicated with pneumonia, and attended with rose-coloured spots, the latter disappeared under cinchonism; but a more active form of fever often supervened, which required depletion and other active remedies.

5thly. In all cases where the complication was well established—whether pneumonia, ulceration of the bowels, or cerebral congestion—cinchonism produced very little good.

In illustration of the special effects of the drug on the disease, I subjoin the following cases from the Register:—

Case 1.—Mary Burns, aged 12, plethoric habit, was admitted on February 12th, 1853, complaining of severe pain in the head and limbs, with sensation of coldness. Six days ago got wet, and remained in her damp clothes all day. She sat for some time in a damp cellar, where her parent lived, and, on the following morning, had a severe "shivering fit." From this time she became gradually worse, and, when admitted, there was occasional low delirium, with constant dull, aching pain in the forehead; slight deafness; pulse 92, and weak; respiration short and hurried; skin hot and dry; face flushed; conjunctivæ congested; tongue coated with dry, brown fur, with transverse cracks; sordes forming on the teeth; anorexia; bowels constipated; urine scanty and high-coloured.

℞ Quinæ disulph. gr. xv., acid. sulph. dil. ♏.xv., aquæ puræ ʒiij. Misce, capt. ʒj. secundis horis. Milk diet.

Vespere.—Pulse 90, fuller; tongue less dry; headache much relieved; delirium less; bowels open.

13th.—Slept well; headache gone; delirium gone; less thirst; tongue moist, and less furred; skin moist, and cooler; respiration more easy; pulse 83, full; takes a little food.

14th.—Had a good night; no headache or delirium; thirst gone; tongue much cleaner, and moist; the cracks gone, and the sordes disappeared from the teeth; skin cool and natural; urine free; appetite good, and general appearance much improved.

From this day she rapidly gained strength, and was discharged cured on the 18th, not having taken any medicine after the first twenty-four hours.

Case 2.—John Barns, shoemaker, aged 39, admitted on the 12th of February, with the skin hot and dry, and numerous

rose-coloured spots; low, muttering delirium; partial deafness; trembling of the limbs; congestion of the eyes, and severe pain in the head; loss of power in the limbs, and complaining of "sinking about the heart;" pulse 94, very small; respirations 34, and laborious; tongue dry, and loaded with brown fur; great thirst; anorexia; bowels regular; urine scanty and high-coloured.

Milk diet.

℞ Disulph. quinæ gr. vj. 3tis horis.

13th.—Slept for several hours; delirium gone; tongue moist, and less furred; thirst diminished; skin cooler, and moist; pulse 90, fuller; respirations less frequent; urine more plentiful; has taken a little food.

Continue the quinine.

14th.—Continues to improve; rose-spots quite gone; skin cool; no thirst; tongue clean; appetite good; bowels acted freely.

Continue the quinine.

From this time he improved very rapidly; on the 16th was put on generous diet; on the 24th was discharged remarkably strong, and expressed himself as well able to work.

Case 3.—John Mollin, labourer, aged 29, was admitted on the same day as the last case, and with nearly similar symptoms. He had, however, in addition, extensive pneumonia of the right lung.

℞ Quinæ disulph. gr. vj. 3tis horis.

On the second day after admission, the typhoid symptoms abated, the fever assuming a more inflammatory type, and the pneumonia becoming more active. On the fifth day, the quina was discontinued, and antimony, calomel, and opium resorted to for the pneumonia. On the second day of this treatment he died.

A *post-mortem* examination showed the whole of the right and the lower part of the left lung in a state of hepatization, the rest of the viscera quite healthy.

THE LONDON
PRACTICE OF MEDICINE AND SURGERY.

KING'S COLLEGE HOSPITAL.

[Under the care of Mr. LEE.]

COMPOUND FRACTURE OF THE SKULL.—DEPRESSION OF BONE, UNATTENDED BY SYMPTOMS OF COMPRESSION.—OPERATION.—DEATH.

In cases of fracture of the skull, with palpable depression of bone but no symptoms of cerebral compression, what treatment should be adopted? There are few questions in practical surgery in which it is more difficult to strike a balance of probabilities, than as to whether it is advisable in such cases to restore the bone to its place by an operation. On the one side, is the risk of inducing meningitis by the additional exposure of the dura mater, etc., which interference necessarily involves. On the other hand is the danger of inflammation resulting from the irritation of the displaced fragment; and the surgeon cannot but feel, in deciding to leave such a case to nature, that it is not improbable but in a short time he may have to regret that he has allowed the moment to pass by in which a disease, little controllable when once developed, might possibly have been prevented. In the case of young children, we may perhaps assume, that the question has been unanimously decided in the negative. In the case of simple fractures occurring in adults, authorities are much at variance; while, in respect to compound ones, we believe that almost all agree in recommending recourse to instruments. Of the latter class is the following very interesting case. We are indebted for the details of it, and also of the two subsequent ones, to the notes of Mr. Cogan, one of Mr. Partridge's dressers.

William Quirtan, aged 28, a healthy Irishman, received, while walking in the street, a severe blow on his head from a tile, which was blown down from a great height. Admitted into the hospital almost immediately afterwards, it was found that he had sustained a contused wound of the scalp over the middle of the right parietal bone, and also a compound fracture of the latter, with depression, to a considerable extent, of a fragment the size of a half-crown. The dura mater was not exposed, nor could a probe be made to pass to it between the fractured portions. The man presented no symptoms whatever of cerebral mischief,—he had walked into the ward, and conversed in a rational and collected manner. Mr. Lee, having examined the part, remarked to those present, that the circumstance of its being a compound fracture rendered the occurrence of suppuration inevitable; it was, therefore, important to provide a free means of escape for the matter from all parts. He also expressed his belief, that the probability of that suppuration being mild in degree, and of the non-extension of inflammatory action to the brain or its coverings, would be materially increased by the restoration of the depressed portion of bone to its place. The external wound was, accordingly, enlarged; and, the trephine having been applied over the sound bone, the displaced fragment was readily elevated. In doing this, Mr. Lee found the inner table had been driven much further down, than had been suspected. A small portion of the inner table was detached from the rest of the bone and almost loose; this Mr. Lee removed entirely.

During the twenty-four hours immediately following the operation, the man appeared to be in a favourable condition, although somewhat restless. Symptoms of severe cerebral mischief, however, subsequently set in, attended with convulsions and hemiplegia, which terminated fatally fifty-two hours after the accident. Permission to make a *post-mortem* examination was refused by the friends of the deceased. Mr. Lee, however, ascertained that the dura mater had been lacerated by a depressed spicula of the inner table, to the extent of two inches, which had also penetrated the brain. The substance of the brain beneath the seat of injury was completely disorganised by inflammatory changes.

At one period of his experience, John Hunter stated, that he had never known a case recover in which, during the operation, the dura mater had been wounded. Subsequent observations have, of course, furnished exceptions to this rule; but the extreme importance of that lesion will be still acknowledged by all practical surgeons, and it, is, we suspect, in the last degree exceptional for an adult to recover after it. In Mr. Lee's case the laceration was part of the accident, and it had unfortunately taken place at such a distance from the external wound that there did not appear at the time of the operation any reason to suspect its existence. On account of this complication, which was doubtless the efficient cause of the fatal termination, the result of this case cannot be considered as affording any evidence, either *pro* or *con*, to the solution of the debated question, regarding the propriety of operating in the absence of symptoms of compression.

The next case which we have to bring forward well exemplifies the extent of injury which the brain itself may occasionally sustain, and yet the individual retain perfect consciousness for a time. It also illustrates, what is not of infrequent occurrence, the separation of the dura mater from a part of the cranium not the seat of fracture, and the extravasation of blood between the two. Had the man lived longer, it is not improbable but that suppuration would have occurred at this point, and death of a portion of the bone.

LACERATION OF THE BRAIN.—FRACTURE OF THE SKULL, ETC.—DEATH.—AUTOPSY.

[Under the care of Mr. FERGUSSON.]

John Rowe, aged 53, admitted at five in the afternoon of January 18th, having just previously fallen a height of thirty-eight feet, on to his head. On examination, a large scalp-wound was found over the junction of the left parietal with the occipital bone. The pericranium at this part was stripped from the bone, but the latter had sustained no fracture. On the same part of the opposite side, however, the cranium was unnaturally flattened, over an extent of about half-a-crown. The man walked into the hospital with a firm step; he was perfectly sensible, and answered questions readily. He complained of a severe pain in his head. At 7·30 p.m. he was very restless, and talked in a wandering, disconnected manner, and in a short time afterwards sank into a state of insensibility, during which his respiration was attended with stertor. The pupils had hitherto been in a natural condition, but they now became motionless, the right widely dilated, the left contracted; the pulse became slower, and more laboured. Excepting that, after a while, *both* pupils became dilated, he continued in exactly the above condition up to the time of his death, which occured at one o'clock on the following day—twenty hours after the accident.

Autopsy.—There was no fracture at the seat of the wound, but, on removing the scalp from the part where flattening had been noticed, a stellated fracture was discovered. Beneath this fracture there was no effusion of blood, but between the dura mater and the skull, in the part exactly opposite to the scalp laceration, was a large clot of blood. The under surface of the middle and posterior lobes of the left cerebral hemisphere was extensively lacerated, so as to very nearly lay open the lateral ventricle. In the middle fossa, and upon the tentorium, were large extravasations of blood.

INJURY TO THE HEAD.—SYMPTOMS OF SEVERE CONCUSSION.—DEATH.—AUTOPSY.—LATERAL FRACTURE OF THE BASE OF THE SKULL.

[Under the care of Mr. FERGUSSON.]

We quote the following interesting case, on account of its affording a good example of the difficulties which occasionally attend the differential diagnosis of concussion and compression. Towards its end, it must be admitted, the symptoms were tolerably conclusive as to the existence of the latter, but, during the first twenty-four hours, the question was sufficiently puzzling:—

John Kenny, aged 57, admitted on Sunday morning, Dec. 5, at 2 a.m. Attempting to return home from a public-house, where he had been drinking, he had fallen backwards, and struck his head violently against the kerb-stone,—such, at least, was supposed to have been the nature of the accident; he was found by the police lying in the street in a state of complete insensibility. When carried into the ward he was insensible, but could be partially roused; his pupils were contracted, and the surface of the body cold. Some bleeding had taken place from the left ear. Shortly after admission, he vomited, but immediately relapsed into his former stupor. After lying for an hour with cold to the head and sinapisms to the feet, he suddenly roused himself, got out of bed, walked to the water-closet, had a motion, and returned to bed, when he again sank into his previous condition. A few hours later, he was aroused by the desire to make water, raised himself in bed, and insisted on holding the utensil for himself. During the whole of the day he continued restless, incessantly moving about in bed; pupils contracted; pulse small, jerking, and intermittent. A slight oozing of blood from the left ear still continued.

On the 6th, his condition was as follows:—Much less sensible; face turgid; pupils very much contracted; pulse full, hard, and irregular; fæces retained; micturition voluntary. Bleeding to the amount of ʒxij. was practised from the right arm, after which the pulse became jerking and small, but no mitigation of the cerebral symptoms ensued.

7th.—Face congested; temporal and carotid arteries pulsating very strongly; urine dribbles away, although the bladder is not full. He is still less easily roused than yesterday. Venesection from the right temporal artery to ʒviij. No apparent benefit followed. He continued in much the same condition until the evening, when, about half-past eight, he somewhat suddenly expired. At the *post mortem* examination, coagulated blood was found beneath the anterior lobe of the right hemisphere. On the left side, over the surface of the brain, were two small clots, each about the size of a shilling. The substance of the middle lobe of the brain on this side was soft and broken down; beneath it was a quantity of extravasated blood. The vessels of the pia mater were everywhere turgid, and in each lateral ventricle was a quantity of bloody serum. The brain having been removed, a fracture was found to extend from the squamous part of the left temporal bone, across its petrous portion, and along the course of the lateral sinus, as far as the right side of the internal occipital tuberosity.

ST. BARTHOLOMEW'S HOSPITAL.

FRACTURE OF THE BASE OF THE SKULL.—FRACTURE OF THE THIGH, AND COMPOUND FRACTURE OF OLECRANON.—ABSCESS IN THE BRAIN.—DEATH ONE MONTH AFTER THE ACCIDENT.

[Under the care of Mr. PAGET.]

THOMAS SARGEANT, aged 23, whilst engaged on July 23, 1852, on the roof of a three-storied house, in setting snares for pigeons, missed his footing and fell into the street. He was picked up insensible, and carried to the hospital. The following note of his condition was made about an hour after the accident:—His right thigh is broken about the middle. There is a compound fracture of the left olecranon, the elbow-joint being laid open, and the detached portion of bone dragged up the arm two inches above it. The face is much cut and bruised, and on the left side of the scalp is a contused wound, which does not, however, lay bare the bone. There has been some oozing of blood from the nose, but none from either ear. All questions put to him he answers in a confused and stupid manner, and readily extrudes the tongue, which is dry and brown. The latter symptom, supported by his peculiarly vacant aspect, led to the suspicion that he must have been ill at the time of the accident, either from fever or insanity. His friends, however, stated, that he had previously been in the possession of all his faculties, in good health, and of temperate habits. The broken limbs were each of them extended by means of straight splints in the usual way. Throughout the day he remained in a stupid condition, sleeping a good deal at times, and at others talking in a half coherent manner. On the following day his aspect was better, and the tongue moist, though still thickly furred; pulse soft, 96. He had repeatedly undone all his bandages.

On the 29th he was in a condition apparently of perfect consciousness, and had slept fairly during the two previous nights. As he persisted in using on all occasions the most disgustingly obscene language, it was found necessary to order his removal to a private ward. Previous to this measure being adopted he had, (for the sake of experiment,) repeatedly been threatened with dismissal if he persisted in his bad habit, and although appearing at such times quite rational and willing to promise improvement, yet, without any apparent cause, he immediately returned to it. There was such a mixture of seeming consciousness with all his acts, that it was very difficult to determine whether they were in fact voluntary or uncontrollable. His tongue was now quite dry; pulse 100, of moderate volume; skin dry and warm; pupils of equal and moderate size, contractile. As, in spite of the statement of his friends, there was reason to believe that he had been an intemperate man, he was ordered an allowance of ʒiv. of gin; porter, two pints daily.

℞ Tinct. opii ♏ xl. omn. noct. sumend.

August 1.—He has been so determined in his efforts to get out of bed, and to remove the dressings from his arm and leg, that it was yesterday found necessary to confine him by means of straps. When desired, he puts out his tongue, but does not appear to comprehend the questions addressed to him, as he returns no answer. Ever since admission, he has passed his urine spontaneously; sometimes, however, without making his wants known. The bowels have been very costive. He is very frequently occupied in singing and shouting, but his language is much less obscene than formerly. From this date he lived on, with but slight variations, till the 19th inst.; continuing, until within two days of death, to be able to put out his tongue, and frequently appearing to be in a state of tolerable consciousness. When the usual dose of laudanum was omitted, he did not sleep, but, by its aid, he usually passed a quiet night. His tongue throughout was remarkable for its extreme blackness and dryness. The pulse varied, being occasionally soft and full, and of a frequency not greater than 90; usually, however, it was very rapid and feeble. The skin, mostly warm, was at times cool, but never perspiring. It was noticed that his favourite posture was with the head laid on the right side. Although, from his restless state, it had been found impossible to keep the splints on the injured limbs, yet the fractures proceeded in a favourable manner towards reparation, and the wound of the elbow-joint looked remarkably healthy. The laceration of the scalp had quite healed. During the three days immediately preceding death, he had been gradually becoming less and less sensible, and ultimately sank into complete coma. At the *post-mortem* examination, it was ascertained that no injury to the skull corresponded with the scalp-wound. In the anterior lobe of the left hemisphere of the brain was found an ill-circumscribed collection of pus and broken down diffluent brain substance. The other parts of the brain did not present any remarkable features. A fissure was found extending obliquely through the body of the sphenoid bone, and also its lesser wings, and from this another ran forwards, and to the left into the ethmoid bone, the left side of the cribiform plate of which was considerably depressed. With the exception of this depression, no displacement of the fractured bones existed; their dura-matral investment was torn through, but there were no evidences of inflammatory action, nor yet of the commencement of any process of repair, the parts implicated in the lesion being simply adherent together by a thin layer of coagulated blood.

Among the circumstances worthy of remark in the above case we may note the following:—1st. The difficulty in diagnosis between delirium tremens, or *traumatic* delirium, and that form dependent upon low inflammation of the cerebral substance. Throughout the whole course of the disease the man was in that peculiar condition of busy restlessness so often met with in the former, rather than in that of the *delirium ferox* which marks the latter affection. In the almost persistent dryness of the skin and tongue, there was, however, a feature of well-marked distinction from what occurs in mere *nervous* delirium. 2nd. The length of time to which life was prolonged, despite the fracture of the base of the skull and the other severe injuries. 3rd. The non-occurrence of bleeding from the ears. The explanation of this not unfrequent absence of a symptom much regarded, was, in this as in many other cases, simply that the direction of the fracture did not involve any part of either internal ear. On the subject of hæmorrhage from the ears as diagnostic of fracture of the base of

skull, we must adduce the following case, in which its absence was *not* accounted for by the direction of the fracture :—

Mary M'Carthy, aged 45, whilst intoxicated, threw herself from a window on the third story. She was admitted under Mr. Paget's care almost immediately after in a state of partial sensibility, having sustained, besides the concussion, a starred fracture of the left patella, a comminuted fracture of the right femur, and an extensive laceration of the right arm. Six hours after admission, she sank into profound coma, and continued so for three days, when death took place. At the *post-mortem*, fissures, with but very little displacement, were found to extend in several directions over the base of the skull, crossing the petrous portion of the left temporal bone, the body and right side of the sphenoid, and the left orbital plate of the frontal. She had not had the least bleeding from either ear; there had, however, been present a symptom which we suspect is of almost as serious an import,—*continued venous oozing from the nose*. This latter indication was also present during the first day in Sargeant's case, and was well explained by the displacement of the cribriform plate, as discovered after death.

ST. THOMAS'S HOSPITAL.

SEVERE COMPOUND FRACTURE OF THE SKULL, WITH DEPRESSION.—OPERATION.—RECOVERY.

[Under the care of Mr. SOUTH.]

Some of our readers may possibly be surprised when we say, that in the practice of several of the largest metropolitan hospitals, it is with extreme rarity that we see the operation of trephining performed in cases of fractured skull. The comparative disuse into which this once most popular procedure has now fallen, constitutes, we believe, an evidence of the progressive character of our art very creditable to modern surgeons. The danger incident to the operation itself is now fully recognised, and by an increasingly accurate perception of the exact conditions to the relief of which it is adapted, the number of cases in which that danger may be legitimately risked has dwindled down to a very small one. Sir Astley Cooper relates, that in his pupilage the trephine was the common remedy for all cases of concussion. Indeed, it would appear, from his account, that it was the almost constant sequent of a blow on the head, and often constituted to the poor unfortunate by far the more serious half of his accident. We are not quite sure, however, but that now-a-days the current is setting rather too strongly in the opposite direction. A French surgeon of great note abjured the instrument altogether, and some English surgeons, although not rash enough to enunciate a similar principle, seem practically to have arrived at a not very different conclusion. In former times, from the frequency with which the operation was performed, and from its being often resorted to when no serious damage to the brain had been sustained, the cases of recovery were tolerably frequent, and, as a consequence, surgeons looked too lightly on the risk attached to it. At present, from its rarity, and from the fact, that injuries of an almost hopeless character often complicate the few cases in which it is deemed admissible, recoveries after its performance are extremely infrequent, and possibly the opinion prevalent as to its intrinsic danger may, on this account, be a little exaggerated. We are cognizant of the particulars of a series of cases in which this operation has been recently performed without obviating the fatal termination. In some of these the base of the skull was afterwards found to have been broken, and in others the cerebral substance severely lacerated. We are acquainted, also, with one single case in which, at the time of the *post-mortem*, there was reason to regret that the trephine had not been used. Turning from these, we record with pleasure the following, in which its opportune and skilful employment probably saved the life of the patient. For the details concerning it we are indebted to the notes taken by Mr. Tyrrell, one of Mr. South's dressers ;—

William Geer, aged 35, of temperate habits, and in good general health. On the 16th of February, contrary to his custom, he got intoxicated, and met with an accident, the particulars of which could not be ascertained. Being engaged at the time with his brother as a workman in the building of some new banking premises in Lothbury, it was supposed, that, in attempting to ascend some stone steps, he had overbalanced himself and fallen backwards. No noise of a fall had been heard, but, on entering a room on the ground-floor, his brother found him laid quite insensible, with his feet on the steps, and his head, considerably cut, on the stone floor below. About an hour and a half was lost in seeking medical aid, which, not being obtained, he was taken to the hospital a little before 3 o'clock, p.m. On examination, a lacerated scalp wound an inch and a half long was found to extend transversely across the upper part of the occiput, and, on introducing the tip of the finger into this, a fracture of the occipital bone, with considerable depression, was easily felt. The symptoms of compression were well marked—respiration stertorous, very slow, and attended with great apparent difficulty; pulse full laboured, 50; pupils dilated, quite insensible to light; extremities cold; insensibility complete. He was placed in bed, with warm bottles to his feet and legs. After the lapse of nearly an hour, during which he had been carefully watched, there was no apparent improvement; on the contrary, his pulse was slower, and respiration drawn at longer intervals and with great difficulty; some fæces had passed involuntarily, and the temperature of his extremities rather declined. Under these circumstances, Mr. Lankester, the house-surgeon, deemed it unwise longer to defer the further examination of the wound, and, in the unavoidable absence of Mr. South, he therefore at once proceeded to the operation. A vertical incision was accordingly made, so as to join at its middle the transverse scalp wound, and to form with it an inverted ⅃. A good deal of blood was found extravasated beneath the scalp, which, having been removed, the flaps were dissected outwards, and some small arteries ligatured. The direction taken by the fractures now exposed will be best understood by reference to the accompanying sketch.

The whole of the portion marked C was depressed to the extent of rather more than the thickness of the outer table.

At this stage of the operation, the patient appeared to be fast sinking; his extremities were quite cold, pulse very weak and slow, and respirations drawn with increasing difficulty. Having attempted without success to lift the depressed bone by means of a common tooth elevator, Mr. Lankester now proceeded to apply the trephine at the part indicated by the dotted line. The sawing having been completed, and the segment of bone removed, a considerable quantity of blood-clot was found lying beneath it, and was carefully drawn out, when a good deal of fluid blood also escaped. The depressed portion of bone, C, was next, without difficulty, lifted into place, which accomplished, Mr. Lankester observed what appeared to be a small detached fragment (B) of the outer table, lying in the wound; on attempting to remove it, however, it was found to be united to a larger portion of the inner table, which was pressing on the dura mater; by means of a little cautious traction with the forceps, the whole of this was detached and extracted. The portion on which the letter B stands was next lifted slightly by means of the elevator, and the operation appeared to be complete. The patient was now most signally relieved; having been roused, he was asked his name and residence, and, after some hesitation, he answered correctly. His pulse rose to 58, and the respiration assumed a much less laborious character. When not excited by questions, he lay half conscious, and muttering to himself. Such marked success having resulted, it was deemed needless further to examine the wound, which was accordingly closed with strapping, and cold lotion was applied to the whole scalp. In a short time the warmth returned to the extremities.

At half-past five, Mr. South saw the patient; he then lay muttering incoherently, but was sensible when roused; his pupils answered sluggishly to the stimulus of light. Pulse, 70; extremities warm; he had vomited twice, the ejected fluids being of a greenish colour. Ordered calomel. gr. iij., statim. During the following two hours he appeared to get rather worse, became more difficult to rouse, and returned less coherent answers when questioned. In speaking, he did not finish his sentences, and, when asked how he felt, replied, he did "not feel at all," adding, after a

short time, "well." A middle strip of plaster was removed, as the wound appeared to have filled with clot.

9 p.m.—Pulse weak, 68; he can scarcely be called sensible; pupils still act but very sluggishly; there is some oozing of blood from the wound. From this time, he gradually became less and less sensible, until

17th, three a.m.—Insensible, but, if roused, mutters incoherently, and attempts to turn away. The pupils do not act so readily. Pulse 80, respirations 20. Has had repeated vomiting. Eight, a.m.—Much more sensible, complains of great pain in the head, and also of feeling cold and chilly. Bowels have acted once this morning. Head hot. Pupils acts naturally. Ordered hot bottles to the feet, and an extra blanket on the bed. Five, p.m.—Having been suddenly seized with a fit of convulsions, it was deemed advisable to remove the dressings, and on passing the finger into the wound, a large clot of blot was discovered filling up the hole made by the trephine; this was dislodged and he afterwards appeared much relieved. Pulse 88, full and bounding. Ordered V.S. ad. ʒ xvj. Hirud. xx. temporibus.

18.—After the convulsions, which did not recur, he remained insensible through the night, the latter part of which was, however, apparently spent in tranquil sleep. He is now quite sensible, and says, he feels very weak and giddy. Pulse soft and more feeble. Is very drowsy, and has vomited several times. Mr. South directed a bread poultice to be applied to the wound, and the cold lotion to the scalp to be omitted.

19.—Is sensible, but requires much rousing; complains of severe pain in the forehead and vertex. The bowels have acted freely several times; pupils still sluggish; pulse 84, full; head hot; tongue furred with whitish coat. The wound does not look healthy; it shows but very little action, and has not yet begun to suppurate. V.S. ad. ʒx.

20.—Is still very drowsy, and sleeps a great deal. Pulse 80, respiration natural. Complains of feeling cold, and also of continued pain in the head.

21.—The wound is now suppurating freely; its condition appears to have been much improved by the poultice.

22.—Still complains of much pain in the head, but is, on the whole, improving. A considerable amount of sloughy tissue is separating from the wound in a healthy manner.

23.—Has slept badly, and is not so well as yesterday. On account of the heat of scalp, the poultice was removed, and cold lotions again applied.

24th—Rather better, though still incoherent at times. He performs whatever he is requested to do, but does it all in a slow and stupid manner. The wound is suppurating very freely. He has hitherto taken no food, excepting bread and milk, for which he has a good appetite.

March 3rd.—Is steadily improving, and has now lost much of the hesitating, stupid manner which he previously had.

14th.—Allowed to sit up for a short time, but felt very giddy. The wound is fast closing.

19th.—He may now be considered convalescent; is in good health, has regained the perfect use of all his faculties, and suffers no inconvenience referrable to the accident. The pulsations of the brain can be felt through the integument over the seat of injury. The wound is not quite closed.

April 14th.—The man is not yet discharged, as a small point remains unhealed; he is, however, quite well in all other respects, and goes down into the square for exercise daily.

COMPOUND FRACTURE OF THE FRONTAL BONE, WITH DEPRESSION.—LOSS OF A PORTION OF BRAIN.—RECOVERY.

William Rogers, aged 2½, a strong, healthy-looking child, was admitted on Sunday, 7th of September, 1852, suffering from a compound fracture of the frontal bone, just above the left frontal eminence. His parents gave the following account of the accident: About two hours previous to his admission, he had fallen down an area, the depth of which was about ten feet. When picked up he was screaming violently, and bleeding copiously from the wound. He did not seem to recognise or take any notice of them after his fall. He was immediately carried to a neighbouring surgeon, who dressed the wound, and told them that nothing of importance was injured. They were certain, that at this time there was no protrusion of the brain. They accordingly took the child home; but in the course of half an hour, they noticed some whitish substance protruding through the wound. This aroused their suspicions, and they brought him to the hospital. On admission, there was found to be a small wound, about an inch in length, in which was lying a completely detached portion of brain about the size of a kidney bean. No fractured edge was to be detected in the wound, but an apparent depression backwards existed above the wound. The child was now quite insensible, and the right side of the face and the right arm were convulsed, but not violently; the pupils were dilated, and the left eye was closed by the swelling consequent on the bruise. Just before admission he had vomited the contents of his stomach, mixed with a considerable quantity of clotted blood. During the dressing of the wound he again vomited, and bled slightly from the nose. His system did not seem to be much depressed. His pulse was 120, regular. Breathing quiet and tranquil. In about half an hour, he appeared to be sinking, and the trephine was proposed, as depression of bone was believed to exist. Soon after this, however, Mr. South arrived, and determined as yet not to proceed with any operation, more especially as the child now appeared to be mending. He was now partially sensible, the pupils answered to light, and the convulsions had ceased.

9 p.m.—Sensible; has slept tranquilly for some little time; his pulse is now quite regular, 100.

September 8.—Has passed a perfectly tranquil night. He is quite intelligent this morning. Bowels have been once opened this morning. His head is rather hot, and his pulse has risen to 128. He is altogether rather feverish. Ordered lot. evapor. to the scalp, and hydr. chlorid. gr. iij. statim.

9th.—Feverish, though not so much so as yesterday. His head is not so hot, and his pulse is slower. He is altogether progressing favourably. Appetite good.

10th.—No bad symptom.

17th.—He has progressed favourably up to this time, and has not had a bad symptom, and the wound is now very nearly healed. Going home to-day.

We have extracted, from the notes taken by Mr. Tyrrell, the dresser of the patient, the above facts. The case is of interest, as adding another to the already numerous illustrations of the ease with which young children, when left to the kindly offices of nature, will recover from severe injuries to the head.

SCIENTIFIC LECTURES.

HUNTERIAN LECTURES ON THE ANATOMY AND PHYSIOLOGY OF FISHES AND REPTILES.

By RICHARD OWEN, F.R.S.,
Hunterian Professor to the College.

This Day, April 23.—Lecture XV.—Relations of the Osseous structure to the low temperature and inactive habits of Reptiles. Characters of the Vertebræ of the different orders of Reptiles. Modifications of Vertebral column in Batrachia, and conditions of the absence of true ribs in this order; in Ophidia, and accessory functions of their ribs explained; in Sauria; in Enaliosauria; in Crocodilia; and in Chelonia.

Tuesday, April 26.—Lecture XVI.—Skull in Batrachia; in Ophidia, advantages of the freedom of their jaws; in Sauria; in Crocodilia; in Chelonia. Development and Metamorphosis of hyoid arch in Batrachia; its modifications in other reptiles. Scapular arch and its appendage, the fore-limb; modified as a fin in Enaliosauria and Chelonia; developed as a wing in Pterosauria. Pelvic arch: its nature and homology shown in Batrachia and Ophidia; its modifications in Chelonia; its appendage or the hind-limb; rudiments of legs without the pelvic arch in some serpents.

Thursday, April 28, and Saturday, April 30.—Lectures XVII. and XVIII.—Muscular and Nervous Systems of Reptiles:—Relation of the high irritability, and low energy of muscular action in Reptiles to their cold blood. Structure and variety of the spinal chord; its relative length to the spinal column in different Reptiles. Brain; its primary divisions in Batrachia, Ophidia, Sauria, and Chelonia. Progressive predominance of cerebrum. Conditions of low development of cerebellum in Batrachia; relations of its modifications to generation and locomotion. Membranes of neural axis. Cerebral, spinal, and sympathetic nerves. Organ of taste; of smell; of seeing; of hearing.

LIST OF SCIENTIFIC MEETINGS.

This Evening, April 23.—Royal Institution.—*Subject:*—"On Static Electricity." By Professor Faraday. Three o'Clock.

——— ——— Medical Society of London.—*Subject:*—"On Craniotomy in Deformed Pelvis." By R. Greenhalgh, Esq. Eight o'Clock.(a)

Tuesday, April 26.—Royal Institution.—*Subject:*—"On the Electric Telegraph." By W. Carpmael, Esq. Three o'Clock.

Thursday, April 28.—Royal Institution.—*Subject:*—"On Technological Chemistry." By Dr. E. Frankland. Three o'Clock.

Friday, April 29.—Royal Institution.—*Subject:*—"On the Treatment of Foreign Wines, and the Extensive Injuries Recently Caused by a Fungus on the Grape." By W. Brockedon, Esq. Half-past Eight o'Clock.

Saturday, April 30.—Royal Institution.—*Subject:*—"On Static Electricity." By Professor Faraday. Three o'Clock.

——— ——— Medical Society of London.—*Subject:*—"On Stricture of the Urethra." By John Chippendale, Esq. Eight o'Clock.

(a) We are requested to state, that Mr. Walton's Paper on "The Pathology and Treatment of Iritis," which was announced in our last for this evening, is postponed.

Medical Times & Gazette.

SATURDAY, APRIL 23.

THE NEW VACCINATION BILL.

It is from no feeling of disrespect to Lord Lyttelton, and from no misgiving as to the purity of his motives, that we express our decided disapprobation of the Vaccination Bill lately proposed by that nobleman. We willingly give him credit for the energy and ability which he has displayed in bringing forward the measure in question; and we admit that his arguments in favour of vaccination as a protective against small-pox must carry conviction to any unprejudiced mind. But, as medical practitioners, we are bound to protest against the monstrous injustice which the proposed Bill is likely to inflict upon many members of our Profession, inasmuch as it perpetuates all the defects of the existing system, without introducing any new provisions to render it more palatable to the Nation.

The present arrangements for carrying out the practice of vaccination among the mass of the population are inefficient and unsatisfactory in the extreme. A National Vaccine Establishment exists in London, which supports a staff of vaccinators posted at different localities in the Metropolis; but the number of persons so engaged, amounting to little more than a dozen, is obviously quite inadequate for the purposes required. Vaccination is also performed at the Small-pox Hospital on Highgate-hill; and a great number of persons resort to that establishment to secure for their children the preventive influence of the cow-pox. With these exceptions, vaccination is chiefly under the control of the Boards of Guardians of the respective unions.

Now, we are wholly at a loss to understand why the Boards of Guardians are supposed to be the most competent authorities for carrying out the practice of vaccination. These parties are universally disliked and despised by the Medical Profession, for their mean and sordid conduct in all that relates to medical remuneration; and, as far as regards the public in general, we do not see what earthly connexion the Guardians of the Poor can have with the practice of vaccination, inasmuch as the persons to be benefited by the operation are not necessarily paupers. To suppose, again, that these Guardians can exercise a proper judgment in selecting vaccinators, in superintending their labours, and in proving their efficiency in the discharge of their duties, is simply to imagine, that men can learn by intuition to direct others in a professional pursuit for which they themselves are wholly unfitted by nature and education. Without meaning any offence to the respectable gentlemen who compose these Parochial Boards, we think them just as much unsuited to carry out the objects of vaccination as a medical man would be incapable of directing the operations of a brewery or the manufacture of boots and shoes.

It is quite evident, that, in order to render vaccination efficient, it is absolutely necessary that a pure supply of lymph should be continually supplied to the Profession, and that this supply should be insured by the appointment of competent persons to provide the sources from which it may be obtained. Now, at present, there is no supply whatever provided, except from the National Vaccine Establishment, nor are any persons appointed who are to judge of the purity of the lymph employed by the vaccinators; the consequence is, that the Medical Profession are compelled in most cases to procure their lymph where and when they can, and numerous failures are the obvious results.

Now, with such a miserable system still in operation,—the superintendence of vaccination being entrusted to the Guardians of the Poor,—the vaccinators being miserably underpaid and overworked,—the supply of lymph being left to be derived from indiscriminate and fortuitous sources,—can it be hoped that the discovery of the immortal Jenner can be rendered practically useful to the community, or that vaccination can be carried on with zeal by the Medical Profession?

Let the present system be abolished; let vaccination be taken entirely out of the hands of the Poor-law Guardians; let it be entrusted to a competent Medical Board; let the labourer, who is worthy of his hire, be allowed to receive it; and, when all this is done, the question may fairly arise, whether vaccination should be rendered compulsory. It is better to let things stand as they are than, by rash and hasty legislation, to consolidate a scheme which has excited general dissatisfaction, and which, by its clumsy machinery, has obstructed rather than advanced the dissemination of a national blessing, which our illustrious countryman was the means of conferring upon mankind.

Since the above was written, we have been favoured by Lord Lyttelton with a copy of the Vaccination Extension Bill, as amended on re-commitment. These amendments, however, do not affect the objectionable features of the measure. We must notice one striking alteration in the Bill, which occurs in the first clause, and the perusal of which startled us not a little, as it puts still greater control into the hands of the Poor-law Guardians than they already possess.

"And such Guardians and Overseers shall require such medical officer and practitioners, in all practicable cases, to perform such vaccination in the presence of the parent or other person by whom any child may be brought to such place for such purpose, from the arm of a healthy child there present; and where any such medical officer or practitioner shall not so perform vaccination as hereinbefore directed, he shall forthwith report the same, together with the reason thereof, to such Guardians or Overseers, who shall thereupon, if they shall not be satisfied with the reason so assigned, proceed, subject to the approval of the Poor-law Board, to take such measures as to them may seem fit for vacating the contract entered into with such medical officer or practitioner for the purpose of vaccination, or for enforcing the payment of any penalty provided for such case in such contract."

THE EXTRA-LICENTIATES OF THE COLLEGE OF PHYSICIANS.

It is strange that, long as the College of Physicians and its regulations have been before the medical world, so little should be known as to the history and qualifications of the class called Extra-licentiates.

The etymology of the term suggests that this class of physicians is licensed for some place beyond the limits of some other place, for *extra*, in its literal acceptation, has reference to place. But it is also often used with reference to number, and signifies *additional*. Hence, many imagine that these physicians are supernumerary, over and above a certain number assigned to the Licentiates.

The truth is, as we are informed, that the Extra-licentiates are a class with which the College, as a College, has nothing to do, and for which it is not responsible; and the institution of such a class arose out of gross legislative bungling. The College was originally founded as a Metropolitan institution, and the Provinces were left to take

care of themselves. Long afterwards, it was deemed necessary to give the College a power of licensing Physicians for the country. The natural way to accomplish this object would have been, to grant to the College a new Charter, with extended powers. But this was not the course adopted; an Act of Parliament was passed, requiring the Elects to examine such candidates as were desirous of being licensed to practise in the country beyond seven miles from London.

Thus was introduced, by Act of Parliament, a great evil—a sort of *imperium in imperio*. The Elects were compelled to examine candidates for provincial practice, and to register their names in the College lists as if they belonged to the College, and as if they differed from the Licentiates only in practising in the provinces.

But so little, indeed, has the College to do with the Extra-licentiates, that even its funds do not profit by the fees which they pay. These fees are divided among the Examiners—the Elects. Nor can the College interfere to prevent an improper man being admitted into the order of Extra-licentiates, nor to erase from the list the name of one who has acted dishonorably.

It is quite certain, moreover, that the extra-licence is often sought for, because it may be obtained upon a comparatively easy examination. We also know, that some young men have procured it simply to use hereafter, when they may choose to become Physicians, having got tired of General Practice, keeping the diploma in their pockets until that time.

We would not be understood to imply, that there are not among the Extra-licentiates many men of excellent attainments, and of the highest character. We know, indeed, that there are such; and to them we would say, Use your best exertions to support the College in obtaining a new Charter, which will take you out of your present anomalous position, and throw open to you the opportunity of obtaining the highest College honours.

THE CONDITION OF THE LONDON DRESS-MAKERS.

In the Essay of Malthus, on the Principle of Population, as it affects the future improvement of society, an attempt is made to teach us, that the theory of the pressure of population upon food, as advanced by this true hypochondriac, is conclusively proved by all past experience. Had Malthus lived in the present day, he would have had more followers than he had when writing in 1798, if we may judge of the prevailing opinions by the means now taken for decreasing the extent of the human family. While the more sensitive among us are daily shocked by railway accidents which might have been avoided, by poisonings which the shallowest legal enactments would have prevented, and by epidemic diseases which the merest forethought would have warded off, the great majority of mankind look on helplessly, if not with apathy, and are apparently satisfied if they can prove that things have been, or even might be, worse. That typhus and other contagious fevers should be rife in this vast Metropolis, can astonish none who are acquainted with the filthy dens and hovels in which the poorer part of our fellow-creatures are housed,—habitations into which the light of day can hardly enter, and where pure atmospheric air is unknown. So, again, when we consider the modes of life forced upon our sempstresses and young milliners, can we feel surprised at finding, that thirty-one thousand and ninety English women died in one year of the incurable malady consumption—incurable, truly; but nevertheless, in many cases, to be prevented altogether. When we learn, as we have lately learned from the letters of "A First-Hand," that delicate young women are made to work for eighteen and twenty hours daily, and for days together, in close, ill-ventilated apartments, and to snatch the short respite allowed for slumber in over-crowded sleeping-rooms, do we not, as medical practitioners—nay, as men of common sense—do we not know what must be the inevitable result? To paraphrase the words of Hood, it may indeed be said—

> "Oh, ladies who know no care!
> Oh, mothers and happy wives!
> It is not satin you're wearing out,
> But human creatures' lives!"

But, it may be asked, Is there no cure for this unhealthy condition of things? How are these evils, which we all deplore, to be corrected? We believe that the remedy is, in a great measure, in the hands of the ladies, to please whom these monstrosities are committed. It is one of the greatest social evils of the day, that we have so few occupations for the softer sex. Why is it that we are constantly disgusted with the perusal of advertisements demanding every accomplishment that a governess can possess—or, rather, *cannot* possess—for a remuneration infinitely less than a cook or a lady's maid will obtain in any one of the families of our nobility? How is it that an educated female—one, may be, brought up accustomed to every luxury and comfort—can hardly obtain an honest livelihood in this large Metropolis? How is it that our streets and great thoroughfares are, shame to say, nightly filled with unfortunates? It is, we firmly believe, in some measure, at least, due to the fact, that we have reduced female occupations to a minimum degree; and that, consequently, competition is now so great in the few callings left, that those whose practice it is to purchase in the cheapest market and sell in the dearest are able to grind down honest industry to their own terms. Is it not monstrous, for example, that the shops of our haberdashers and such like, are now filled with powerful, active young men, performing, for the most part, tasks that are only fitted for women! For one female in a linen-draper's establishment there are now at least twenty men, whose only superior qualification appears to be that they can more glibly demand—"What is the next article I may have the pleasure of showing, ma'am?" It is by increasing our female employments, and consequently rendering the services of this class more valuable, that we must seek to remedy the present evil. If the ladies who take so great an interest in the emancipation of Uncle Toms, would but look at home, and help their own sex, how much good might be done! Let them but encourage those tradesmen who give as much occupation as possible to young women, and they will indeed do good. Legislative enactments may be made, but they will assuredly be evaded. The wishes of customers will be obeyed where all other means fail.

APPROACHING FESTIVAL OF THE MEDICAL BENEVOLENT COLLEGE.

The imposing list of Stewards that appears in our columns of to-day, for the forthcoming Festival of the Medical Benevolent College, is an assurance that the proposed entertainment will be worthy of the occasion, and that the number and character of those who intend to be present will render the Festival one of the best of the season. We trust that those who have hitherto withheld their support, from an apprehension that the important objects of the College would not be realised, may be induced to avail themselves of the opportunity the Festival will afford of contributing handsomely in aid of the funds of the College, as it behoves every member of the Profession at this juncture to give his most

cordial assistance in furtherance of this benevolent project. The Council, up to the present period, have nobly performed their duty towards their constituents and the College; and we confidently hope that the Profession will evince their appreciation of those services by mustering strongly on the occasion alluded to. We are assured that the arrangements for the Festival, which are being carried out with spirit and liberality by the Committee appointed for that purpose, will give the greatest satisfaction to all parties. We augur the most favourable results to the College from the forthcoming Festival, and hope to meet many of our provincial brethren, a large number having volunteered their services as Stewards.

ROYAL COLLEGE OF PHYSICIANS.

THE NEW CHARTER.

The following letter has recently been addressed by Dr. Hawkins, the Registrar of the Royal College of Physicians, to H. Waddington, Esq., the Under Secretary of State for the Home Department:—

Royal College of Physicians, April 18, 1853.

Sir,—I am directed by the President and Charter Committee of the Royal College of Physicians, to request that you would be pleased to lay before Viscount Palmerston the following observations upon a letter from the Vice-Rector of the University of St. Andrews, a copy of which you have been good enough to transmit to them by His Lordship's direction.

They cannot admit that the clause cited in that letter from the proposed new Charter for the College of Physicians will affect the *just* rights and privileges of the Universities, or their *legitimate* revenue.

The clause consists of two parts, the first of which states, that it shall be lawful for the College to admit as a member any person who shall have exceeded the age of 40 years, on the production of satisfactory testimonials, and on his passing a sufficient examination. The second part enacts, that such person shall, after his admission, be entitled to have and to use the degree and designation of Doctor of Medicine. Strictly speaking, the clause cannot be said to confer any new power upon the College of Physicians. It was not, in fact, intended for the benefit of the College, but that of a meritorious class of persons to whom, when the College, in the exercise of powers which have always belonged to it, shall have found them competent to practise as physicians, this clause concedes the designation or title by which physicians are usually known and addressed in this country. But the concession is limited to persons who have not had, and have no longer the opportunity of obtaining the advantage of an academical education, and who have no claim, therefore, to a University degree, (which ought to imply that the holder of it has had that advantage,) but who have established a claim to the rank of physician, by their long experience, and by their eminent science and skill. In a practical Profession, like that of medicine, it is always right, that those who by superior talents and industry have raised themselves in public estimation, should have the power of rising from a lower even to the highest rank in the Profession. It seems reasonable, that together with the legal authority to practise as physicians, for which such persons must apply to the College, the title should be granted, which, through common usage, is necessary to render the licence intelligible by the public, and useful, therefore, to the possessor of it. In this way a want, which is, in some cases, felt in the Profession, may be supplied, and that, too, without substantial detriment to the Universities. For it is the earnest wish of the College that such cases should be exceptional only, and that, as the rule, physicians should be induced, indeed compelled, (as they will be by the new Charter) to resort to the Universities for their preliminary and general education. In furtherance of this object, the College offers voluntarily to surrender, by the 6th clause of its new Charter, a portion of the powers which it has hitherto possessed, and to debar itself in future from licensing as a physician (except in the cases above mentioned, of persons of advanced years and unusual attainments) any person whomsoever who shall not previously have obtained University degrees. A concession on the part of the College so important as this in favour of the Universities, ought, in fairness, to be taken into account in connexion with the Clause of the Charter which has been objected to. It may be allowable, perhaps, to mention, that the College did not of itself propose or ask for this Clause. It was spontaneously offered by Sir James Graham, when Secretary of State for the Home Department, on the ground, that it is right and necessary that the rank of physician should be attainable by distinguished General Practitioners, but that its attainment would be of little use to them unless accompanied with the ordinary designation of Doctor.

Of the Deputation from the College of Physicians which had recently the honour of waiting upon Viscount Palmerston, some members ventured to express to His Lordship a strong opinion, that no opposition was likely to be offered to the granting of the new Charter to the College. They did so with the greater confidence, because it has been understood, that persons of authority in the English University who were at first disposed to look with suspicion on the clause now brought into question, had, as soon as they understood the nature and object, readily withdrawn their opposition. The Committee of the College did not, therefore, anticipate any further objections to this clause, it being their sincere conviction that the new Charter, from its general tendency, and from the important concessions which it makes, is consistent with the just rights of the Universities, and favourable to their true interests.

I am further directed to request, that you would be pleased to lay before Viscount Palmerston the following observations on "The Memorial of the Members of the Gloucestershire Medical and Surgical Association," which His Lordship has referred to the President of the College of Physicians.

The President and Committee of the College cannot but agree with the Memorialists in considering the Stamp-duty charged on the licences of the College unfairly and disproportionately high. The duty on the licence of an apothecary, and on the diploma of a member, and that of a Fellow of the College of Surgeons, is 1*l.* only, while, on the licence of the College of Physicians, a stamp-duty of 15*l.* is imposed, and on the diploma of a Fellow, a further duty of 25*l.* They are utterly at a loss to understand why the difference should be so great. They have reason to know, that the serious expense of a licence has deterred many persons from qualifying themselves according to law, and has tempted them to practise as physicians without being duly licensed thereto. Hence it may be safely concluded, that, if the duty on these licences were lowered, many more persons would apply for them; so that a great public evil might be abated without loss to the revenue. They earnestly hope, therefore, that a considerable reduction will be effected by Government in the stamp-duty imposed on the licences and diplomas of the College of Physicians, this being a measure which justice and policy seem both alike to dictate. (Signed.)

REVIEWS.

On Lithotomy and Lithotrity. With Numerous Woodcuts. By William Coulson, Surgeon to St. Mary's Hospital. London: Churchill. Pp. 388.

This book extends to 388 pages, and comprises nineteen chapters. Of these the first nine are devoted to Lithotrity, and the remaining ten to Lithotomy. The first twenty-nine pages contain an historical account of the origin and progress of lithotrity, and the various modifications which the lithotritic forceps underwent before their present excellence of construction was attained. The description wants clearness, and is unnecessarily long; but, notwithstanding these faults, it manifests considerable erudition, and will be found very interesting. We think, however, that the claims of Leroy to be ranked as one of the discoverers and improvers of lithotrity—claims which are scarcely, if at all, inferior to those of Civiale himself—have been unjustly passed over; and we regret this the more because, both in France and in our own country, the services rendered by that ingenious specialist to this department of surgery have never been duly appreciated.

One of the most important questions that can present itself to the mind of the surgeon in the treatment of stone,

is the proceeding by which he shall endeavour to remove it, in any particular case. There are many circumstances calculated powerfully to influence a thoughtful and cautious operator before he determine whether to advise his patient to have the source of his sufferings crushed in the bladder, and expelled by fragments with the urine, or at once extracted by lithotomy. At first sight, the advantages of the former method seem clear and unequivocal; and, in a simple case, where the stone is of moderate size, and not of excessive hardness, where the whole urinary apparatus is undiseased, and the patient in sound health, these advantages can never be overlooked; but the stone may be extremely large, or very solid, the urethra may be strictured, the bladder hypertrophied, encysted, and morbidly irritable, there may be disease of the prostate or kidneys, and, finally, the patient's constitution may be so shattered as to render it unsafe in the highest degree to submit him to the frequent and sometimes protracted and painful sittings which lithotrity may require. Nor is lithotrity, even under the most favourable circumstances, either devoid of danger or unaccompanied with pain. If, indeed, the statistics of Civiale are to be credited, lithotrity would appear to be the safest operation in surgery. But, inasmuch as these statistics, by the explicit declaration of M. Civiale himself, have been egregiously "doctored," and are certainly at variance with the results of English surgery in the hands of its most distinguished professors, we may be excused from attaching that importance to them which the experience and reputation of their compiler might otherwise require. They are tabulated by Mr. Coulson at the end of his book; and a singular mixture of hesitation and caution is exhibited in pronouncing a positive opinion on their value. On the other hand, Mr. Skey—to whose masterly chapter on the subject Mr. Coulson might have referred with advantage—expressly declares, that lithotrity is sometimes a painful proceeding, and is occasionally followed by serious hæmorrhage. He relates a case in which this bleeding persisted for three weeks after the performance of the operation. Mr. Coulson coolly disposes of this complication by stating, that bleeding to any considerable amount has never occurred in the long and extensive practice of M. Civiale; and that surgeon considers that the accident, when it does occur, should be set down to the account of the operator, or to the neglect of those rules which experience has sanctioned. Mr. Coulson, however, states, that a patient operated on at Hôtel Dieu, in 1832, died of hæmorrhage from the bladder, and that Mr. Key has related a case where bleeding was so violent as to render an immediate recourse to lithotomy necessary.

Mr. Coulson reiterates the statement expressed in his former work,—and which has subjected him to sharp criticism,—that pyelitis and extensive renal disease may follow as a consequence of cystitis, by propagation of the inflammation which is attacking the bladder backwards along the ureters to the kidneys. This is obviously a pathological point of the highest importance; and, without doubt, Mr. Coulson has convinced himself of its truth by repeated and careful observation. The portion devoted to lithotrity concludes with two excellent chapters on the indications and contra-indications of that operation. These, however, should evidently have been placed earlier in the work, before the description of the "operation" itself. In fact, the whole arrangement of the subject is open to exception. It would have been a more logical, and, we conceive, a more instructive method, to have considered first the nature and pathological effects of urinary calculi, both proximate and remote, then to have reviewed the expedients devised by surgery for removing such concretions, the history of the operations generally adopted, the manner of their performance, the benefits and dangers accruing therefrom, and, finally, to have discussed the relative merits of each particular proceeding, and allotted to each the cases most suitable to its exercise. Thus a more philosophical description would have been obtained, a more just and impartial discrimination between two great surgical operations been arrived at, while the relative advantages of both lithotomy and lithotrity would have been more clearly set forth by regarding them as distinct and separate proceedings, each adapted to a particular department in surgery, and mutually assisting one another.

Contrary to the advice of Liston and Skey, Mr. Coulson recommends the employment of two knives in the performance of lithotomy, viz., an ordinary scalpel, for the superficial wound, and a narrow-beaked knife, for dividing the prostate. This latter instrument is figured in a woodcut, and signalised as "Coulson's knife;" but we are unable to perceive any difference between it and Blizard's, except that it possesses a shorter blade and a more stumpy beak. Every one knows that Mr. Thomas Blizard employed in his operations for stone a long, narrow knife, with a prominent beak, which has since obtained the designation of "Blizard's knife." Now, if such an instrument be taken, and half or three-quarters of an inch broken off the end of it, and the fractured extremity ground and fitted with a knob, you have "Coulson's knife" at once in all its beauty. The proceeding seems simple enough, and does not apparently involve any abstruse process of reasoning; but, simple as it is, Mr. Coulson has selected it as one of his credentials to futurity. But if the pages on lithotomy display the failings, they exhibit also the excellencies, of their author. We are acquainted with no other treatise in which all the points connected with that operation are so fully discussed.

The great value of Mr. Coulson's work consists in the large amount of practical information that it embodies. The care with which the circumstances favourable to lithotrity are successively enunciated, the industry with which the causes of its failure have been unravelled and traced to their source, the practical rules laid down for the performance of the operation, and the treatment preparatory thereto, are worthy of all admiration. And, despite faults of execution, and inaccuracies both wilful and accidental, there is matter in the book before us that every surgeon should be acquainted with, and which, if judiciously elaborated in subsequent editions, will go far to rescue it from that sepulchre to which so many hopeful productions in literature have been consigned by the merciless fiat of posterity.

In a future edition, we recommend Mr. Coulson to expunge his plates, which, so far from having been "engraved with great skill," are a disgrace to the work, and represent appearances such as we never beheld either in the dissection of healthy or diseased structures. An Atlas composed of plates correctly copied from careful dissections, and representing the anatomy of the perinæum, the regular and irregular distribution of its vessels, the various stages of the operation for stone, and the structures divided therein, would supply a want long felt by surgeons, and form a valuable and appropriate substitute for these defective woodcuts.

Results of the System of Separate Confinement, as Administered at the Pentonville Prison. By John T. Buat, B.A., Assistant-Chaplain. Pp. 287. London: Longman and Co. 1852.

The Model Prison at Pentonville was established for the purpose of testing the efficiency of the separate system in the treatment of criminals. With this view, the worst class of offenders was selected for the experiment, and, in the first instance, the whole of the prisoners were those who were under sentence of transportation. The construction of the prison provided for the complete separation of each of the prisoners, who were isolated from one another, not only by being confined in separate cells, but by such contrivances in their school-room, chapel, and exercising-grounds, as precluded them from holding any intercourse. But while thus precluded from the society of each other, abundant means were provided for the maintenance of their bodily health, and for their mental improvement. They were accordingly well fed, and had opportunities for daily out-door exercise; and within the prison they received religious instruction from the chaplains, secular knowledge from schoolmasters, and they were likewise instructed in different trades by persons employed for the purpose. According to the original intention of the Commissioners of the prison, each convict was to pass eighteen months in this species of probation, and after that period he was to be removed to one of the British settlements in a distant part of the globe, where they would have an opportunity of retrieving their character by the exercise of honest industry. After a few years, however, the period of separate confinement was reduced to fifteen months, and subsequently to twelve, and many other relaxations of the original discipline were also introduced.

Now, the question which is most interesting in a medical point of view, is whether the system of separate confinement, as first proposed and adopted, was of so severe a character as to endanger the health or to enfeeble the minds of the

prisoners, and whether the late relaxations in this and other respects have tended to their physical and mental improvement.

The object of Mr. Burt in the present work is to show, that the original system, while it was sufficiently stringent to punish crime, and sufficiently effectual in reforming the criminal, was *not* productive of mental or bodily disease, at least to such an extent as to furnish arguments against the continuance of the discipline. It is admitted that disease *did* occur, and that insanity *did* manifest itself; but Mr. Burt has attempted to prove that the amount of disease was decidedly small, and that the cases of insanity were not more numerous than might have occurred among an equal number of the same class of persons without the walls of the prison. It appears, indeed, that the entire number of persons afflicted with insanity in the Pentonville Prison during seven years, from its opening till the 31st of December, 1849, was sixteen out of a population of 2769.

Mr. Burt shows, also, that when the discipline was relaxed and the period of separate imprisonment was reduced, the cases of insanity became more numerous, thus proving that the diminution of the term of isolation was at any rate not productive of the beneficial results which were anticipated, and that, if separate confinement were the cause of insanity at all, the shorter period rendered the prisoners quite as liable to that malady as the more extended term.

We are doing Mr. Burt no more than justice when we state, that his book is well and carefully written, and that it is conceived in a truly benevolent and Christian spirit, however harsh his doctrines may appear to some minds. We are further bound to admit, that Mr. Burt's arguments are founded upon a large collection of facts, and that his conclusions are deduced from well-considered premises; and, although it cannot be said that the important question of the best method of prison discipline has been settled by the appearance of the present book, yet it must be regarded as a valuable contribution to our knowledge of the subject, illustrated as it is by the author's personal experience of the old and new systems, as observed for upwards of ten years at Pentonville.

The Obstetric Catechism; Containing Two Thousand Three Hundred and Forty-seven Questions and Answers on Obstetrics Proper. By Joseph Warrington, M.D. Philadelphia: Barrington and Haswell. 1853. Small 8vo. Pp. 433.

In addition to manuals, waistcoat-pocket memoranda, and physiology in rhyme, we have now to add an Obstetric Catechism,—an expositor of midwifery facts so arranged as to be useful to young gentlemen not overburdened with brains or not favoured with strong memories. We trust, however, that the medical students of this metropolis will find it unnecessary to gain knowledge after the manner inculcated in the work before us, the contents of which appear suited only for minds of very tender years,—for those who have not yet cut their wisdom-teeth. That the study of midwifery is most important, and may be taught catechetically, if other modes of teaching are too severe, we of course allow, though we are hardly prepared to strengthen this remark by observing, as we learn from the Preface "the venerable Dr. John W. Francis, of New York," observed, some thirty years ago, that "cases of labour occur in every well-regulated family."—P. 10.

As a specimen of the author's style, we may take the remarks upon the Cæsarian section, premising that we quote them entire:—

"What is meant by the phrase *Cæsarian section* or gastro-hysterotomy?—That section of the abdomen and uterus through which the fœtus, or the fœtus and placenta may be removed, solely with a view to save the life of the child, because the mother is already recently dead, or because the natural passages are so diminutive that it is impossible to remove the child, however much mutilated, through them, without inevitable destruction of the life of the mother also.

"What are the objections to the Cæsarian section?—First, it places the life of the mother in great jeopardy, particularly if resorted to when she is in a state of excitement or exhaustion from ineffectual labour. Second, it does not always preserve the life of the child, though the risk of this is the least objection.

"If it appear clearly the duty of the consultation of accoucheurs that the operation is necessary, when should it be performed?—At as early a period of labour as possible. It is particularly desirable that the patient should have been subjected to as little fatigue from parturient effort as possible, previous to being subjected to so important an operation."—P. 304.

It was the excellent practice of Mr. Squeers to instil knowledge into the minds of his young friends at Dotheboys Hall both by example and precept. Thus, if we remember rightly, a young gentleman having learnt that "bottinney" was a noun-substantive, meaning a knowledge of plants, was made to apply his hypothetical learning by weeding the garden. Let us hope that a different system is pursued by our friends on the other side of the Atlantic, and that students, having gleaned from Dr. Warrington the explanation of the Cæsarian section, do not go and do it.

GENERAL CORRESPONDENCE.

COMPULSORY VACCINATION.

[To the Editor of the Medical Times and Gazette.]

Sir,—I beg to offer my warmest thanks for the able article in the journal of last week on the Compulsory Vaccination Bill. I cordially concur in every sentiment, and fully confirm every statement it contains. I do hope that the Profession will promptly respond to your timely and liberal appeal before it be too late.

The Profession must be aware, that it will be worse than useless to force upon them and the public a scheme of compulsory vaccination infinitely more objectionable in its character, and far more injurious to the medical practitioner than the present, with all its vices and imperfections. Those who are anxious for the character and credit of vaccination, and desirous of defending the Profession from renewed and "barbarous" injustice, ought to lose no time in earnestly petitioning Parliament to reject, till further inquiry, the hasty and random attempts at legislation of well-intentioned, but ill-advised, philanthropists, on a subject confessedly replete with difficulties, and needing the most careful and enlightened consideration of the best informed.

Those who knew anything of the matter, must confess, that the public has far more need of the means for extending efficient vaccination, than a measure which seeks merely to establish the principle of compulsion.

The propagation of small-pox may and ought to be restrained by far less impolitic and objectionable means than the recognition and enforcement of that principle. But the extension of efficient vaccination requires very different measures than the existing or projected law provides.

Any amount of success professedly resulting from the present law, is derived from the unrequited zeal, and the personal and pecuniary sacrifices of those members of the Profession who are already taxed beyond endurance.

Efficient vaccinaton is no necessary result of that Act, which has disappointed its advocates and promoters, and proved to its active agents a source of injury oppression, and degradation.(a) And who will not venture to predict, that the measure now in contemplation, instead of accomplishing the intentions of its advocates and promoters, is more likely to disparage and discourage vaccination, and still further to damage and disgust the Medical Profession?

I earnestly hope, Sir, that the Profession, one and all, will speedily exert themselves to secure for vaccination and its active agents, that consideration to which, for the public good, both are pre-eminently entitled.

I have beeen anxiously endeavnuring to attract the attention of eminent official persons to the subject, in which I feel a deep and enduring interest; and I now place at your disposal the copy of a letter which I have had the honour of addressing to Lord Viscount Palmerston on small-pox repression and vaccination extension.

I may add, that similar letters have been addressed to the

(a) "In almost every locality the working of the Act has led to dissension and altercation between the Guardians and resident practitioners, or among the latter themselves.

"As respects the Profession, therefore, the measure has proved one of injury, oppression, and degradation; while, with reference to its professed object, it must be considered a failure.

"The efforts of medical practitioners to extend vaccination among the labouring classes have been checked by removing the ordinary inducements and facilities for its performance; and the distrust and apathy of the poor have been increased by connecting this invaluable protection with the administration of the Poor-laws."—Preliminary Report of the Poor-law Committee of the Provincial Medical and Surgical Association, Part II., p. 115. 1840. Sherwood and Co.

Registrar-General, Lord Lyttelton, and the Epidemiological Society. With renewed thanks for your valuable labours, and with an earnest desire for their success, I am, &c.

Aylesbury. ROBERT CEELY.

ENLARGED TONSILS AND DEAFNESS.

[To the Editor of the Medical Times and Gazette.]

SIR,—Having so recently felt it to be my duty to animadvert on the strange opinions put forward by Mr. Toynbee, relative to the artificial tympanum, (see *Medical Times and Gazette* of April 9) it is with no little reluctance that I feel myself again called upon to combat the no less singular ideas he has advanced in respect to the connexion of enlarged tonsils with deafness. In your report of the discussion at the Medical and Chirurgical Society, on a paper read by Mr. Toynbee, he is stated to have said:—

"Enlarged tonsils are never the cause of obstruction in the Eustachian tubes."

What Mr. Toynbee's experience may be in tonsil-cutting I know not, but I may state, that my own has extended over many years, and has exceeded three thousand operations. Probably, no man living, therefore, can speak so authoritatively on the subject as myself. To the throat I have, from my earliest career as an aural surgeon, looked for an explanation of the mystery of deafness; to its lining mucous membrane, and its extension along the Eustachian tube, when in a state of congestion, I have laid the charge of causing so grievous a calamity. Hence is it, that the treatment of the outer passages of the ears by acoustic drops and ointments, and by applications of solutions of nitrate of silver, have invariably met with my condemnation. The subject of enlarged tonsils (seeing this complication with deafness is so frequent) necessarily engaged my attention also. I saw cases of very large and projecting tonsils, and no deafness. I saw other cases with thickening about the region of the tonsils, and I passed in my finger to feel between the arches for the condition of those glands, when they were frequently found enlarged, and stealing upwards towards the mouths of the Eustachian passages. Thus it was that I arrived at the conclusion, that enlarged tonsils did sometimes produce deafness, and upon this idea I proceeded to act. Success has too frequently followed my operation to leave a doubt of the fact, that occlusion of the Eustachian tube does occasionally arise from the presence of an enlarged tonsil.

But when relief does ensue from excision of an enlarged tonsil, Mr. Toynbee would attribute it to "the loss of blood consequent on the operation." From this extraordinary remark, I really must be allowed to question the extent of that gentleman's experience in such cases; for I can most positively affirm, that not in one case in a hundred, on which I have operated, has the patient lost a tablespoonful of blood. If a bungling or inexperienced operator makes no distinction between the arches of the palate and the enlarged gland, but grasps them indiscriminately with his instrument, there may be a greater loss of blood than I have mentioned; but let the tonsil only be seized and cut, and there can be no hæmorrhage, for no vessel is cut to bleed from. If relief ensued from the loss of blood, it would be immediate; whereas success does not generally follow the operation for days and even weeks afterwards. If Mr. Toynbee had attributed the relief to the improvement of the general health, which almost invariably follows excision of enlarged tonsils, he would have been much nearer the mark, and to that extent I could have gone with him.

It is really most disagreeable to feel myself thus necessitated to differ from a brother practitioner upon points which appear so easy of being proved or disproved.

15, Savile-row. I am, &c. JAS. YEARSLEY.

THE CASE OF MRS. CUMMING.

[To the Editor of the Medical Times and Gazette.]

SIR,—Since a unanimous verdict of nineteen special jurors was returned, that this unfortunate lady was of "unsound mind," the London medical and general, and the London and provincial general Press, have teemed with notes, notices, letters, and lectures, from the persons still unhappily surrounding her. They have most of them been without signature, but there can be no doubt from whom they emanate. The objects of all these communications are the same,—first, to depict Mrs. Cumming's daughters and family as her personal persecutors; secondly, that they are the "squanderers of her property;" thirdly, to mystify and prejudice the public mind, having in view the coming traverse.

Not a word of reply has hitherto been given by any member of Mrs. Cumming's family; but as this case does not appear to be regarded in the usual way, and the Press does not refrain from publishing one-sided and anonymous statements until the legal inquiries are at an end, I beg for permission to declare, that the first object of the letters, etc. etc., alluded to, is a wicked and cowardly slander; that the second is self-evidently absurd, it being the duty and interest of Mrs. Cumming's family to preserve her property. Those who have profited by the litigation are the only persons to whom the reproach of "squandering her property" can attach; and thirdly, as to the public mind, I can only express an earnest hope and belief, that it will not permit itself to be prejudiced by interested slanderers, and that it will generally be thought this family have suffered sufficiently in the performance of a painful duty, without being made the victims of groundless calumny. One consolation attends this case,—that the enormities permitted by the law, and which have been perpetrated in its name, have been, with other causes, the means of bringing about new legislation on the subject of lunacy, which will probably preserve thousands of families from the serious amount of pain and injury inflicted in this instance. I am, &c.

Lower Grosvenor-place. JOHN INCE.

CAUSE OF MENSTRUATION.

[To the Editor of the Medical Times and Gazette.]

SIR,—In the course of your review of Dr. Tilt's work, in the *Medical Times and Gazette* for April 9th, reference is made to the fact, that Mrs. Manning commenced menstruating twelve hours before the time appointed for her execution; and that, upon *post-mortem* examination, no cicatrices were observed upon the surface of the ovaria, several Graafian vesicles being at the same time, however, in an advanced stage of development. This state of things would at first sight appear to militate against the ovular theory of menstruation; but, taking into consideration the state of mental perturbation which that unhappy individual must have been in, prior to and at that period, and the circumstance of the premature appearance of the flux in her case, it will not appear extraordinary. The exceptional circumstances in which this individual was placed were such as should, it appears to me, exclude the case altogether from the discussion of the physiological question of menstruation; or, at all events, full allowance should be made for disturbing influences likely to have a bearing upon evidence drawn from this source.

The discovery, by Dr. Letheby, of an ovum within the Fallopian tube, while menstruation was going on, established an important point in relation to this function, viz., that in normal menstruation a cause is in operation sufficient to induce contact between the fimbriated extremity of the Fallopian tube and the surface of the ovary, a result which must, therefore, be brought about by changes in the nervous and vascular condition of the organs concerned at the menstrual period. Dr. Whitehead has, I believe, proved the coagulability of the menstrual fluid as it escapes from the uterus, and that its ordinary fluid condition is the result of commixture with the vaginal secretion. The menstrual flow, therefore, so far as that portion is concerned to which its colour is due, is, I think, proved to be hæmorrhagic, or a flux in the ordinary acceptation of the term; and the only remaining point requiring explanation in this much discussed and remarkable function appears to be the mechanism whereby it is effected. I am inclined to the opinion, that the irritability of the muscular fibres of the uterus is augmented at the menstrual period, and that a kind of vermicular action thereof then goes on throughout that body, for the purpose of extruding the mucus, probably flowing into its cavity from the tubes, thereby compressing the veins, already turgid with blood, and thus, by slight obstruction of the venous circulation, causing an exudation of blood to take place, from the delicate capillaries of mucous membrane of the uterine cavity. In dysmenorrhœa, we know that active muscular contractions take place; and the sensations experienced by many, if not the generality of, women in the uterine region during the menstrual flow, indicate that such action in a less degree attends normal menstruation.

I am, &c. H. C. ROODS, M.D.

Bloomsbury-street, Bedford-square.

THE NEW CHARTER OF THE ROYAL COLLEGE OF PHYSICIANS.

[To the Editor of the Medical Times and Gazette.]

SIR,—Judaism towards the licentiates of the medical colleges seems to be the order of the day. If the members of the College of Surgeons have "been betrayed," a more cool act of indignity and betrayal can scarcely be imagined than that proposed by the College of Physicians to one portion of its Licentiates,—those legally en-

titled to practise without the City. This conclusion is arrived at, if from no other source, from reading your pages of the last two weeks.

Dr. Hawkins, in his address to Lord Palmerston, states, that the law recognizes no physicians but "the Licentiates and Extra-licentiates of the College of Physicians," and Oxford and Cambridge Graduates. We may infer, from a proposition in another part of the Address, that physicians who practise illegally do so "disreputably, because illegally." It must be conceded, then, that all those physicians who are not Licentiates, Extra-licentiates, or Oxford or Cambridge Graduates, have no legal right to practise; and also, that those having these distinctions, are legally entitled to do so, either in London or the provinces. There is a most important difference in the position of those who have a legal right to practise, and those who do so "discreditably and illegally," as Dr. Hawkins very clearly demonstrates.

What is intended in the proposed Charter? To betray the whole of those whom the College has already examined and authorised to practise without the City;—to degrade them to the position of those who practise "illegally and discreditably;" for the proposed Charter recognises no distinction whatever between them.

Surely, the Extra-licentiates will lose no time in calling the attention of Lord Palmerston to this very glaring inconsistency and injustice, which must be apparent to every one, whether in or out of the Profession.

I am, &c.

An Extra-Urbem Licentiate.

LICENTIATES *EXTRA URBEM* OF THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

[To the Editor of the Medical Times and Gazette.]

Draft of Charter.—Clause IV.

"That each of the present extra licentiates of the said Corporation may be admitted a member of the said Corporation, on the production to the said censors of the said corporation, of testimonials of character which shall be satisfactory to the said censors, and on his assuring the said censors that he is not engaged in the practice of pharmacy, and on his paying to the said Corporation a fee of 15*l.* 15s., exclusive of the Stamp-duty."

Now, Mr. Editor, since law became a science, and possessed a history of its own, I venture to say there never was a cooler or more barefaced attempt at theft or robbery than that meditated or planned in the above clause of its proposed new Charter by the London College of Physicians, towards the most numerous class, I believe, of its present members, namely, the licentiates *extra urbem!*

With your permission, I will state, through the medium of your widely-circulated Journal, my own unvarnished and literally true case, which, doubtless, is parallel in all essential points to that of the majority of my class. After reading which, let any one say, if he can, that I have used intemperate or exaggerated language.

I shall premise, by saying, that I never supplied a grain of physic in my life to any patient, nor ever had any interest directly or indirectly in the supply of medicines, but have always practised as a pure physician and accoucheur. After taking the degree of M.D. at the University of Edinburgh, the licence of the Edinburgh College of Surgeons, and the University midwifery diploma,—I passed the the examination of the London College of Physicians, not wishing to feel myself in the rural districts of England as one "*legibus regni obnoxius*," and obtained, on payment of 24*l.* 18s., the following unstamped diploma:—

"Sciant omnes, nos, A.B. Medicinæ Doctorem et Præsidentem Collegii Medicorum Londinensis, uno cum consensu C.D., E.F., et G.H., prædicti Collegii Sociorum et Electorum, auctoritate nobis a Domino, Rege, et Parliamento concessa, examinasse ——— die mensis ——— probum virum ——— M.D. e comitatu Cantiæ, eumque dignum judicasse qui admittatur ad praxin medicinæ secundum statuta regni. In cujus rei testimonium nomina nostra his literis adscripsimus. Datum Londini in Collegio nostro ——— die mensis ——— annoque Domini ———.

"———— Præsidens.
———— Elect.
———— Elect.
———— Elect.

"Francisc. Hawkins, Registr."

Under authority of this licence given me, pursuant to statute 14 and 15 Henry VIII., cap. v., sec. 3, I positively possess a legal right to practise physic out of the City of London, and seven miles thereof; I have never desired, nor ever shall desire, the privilege of metropolitan practice. Yet, in the year of Our Lord 1853, it is very coolly proposed to place me exactly, as to the payment of fees, on the same footing with those Scotch and Irish graduates (see clause V.) who have never passed the examination of the college, nor paid a single farthing towards its exhausted exchequer, but who, nevertheless, have practised with impunity in opposition to the laws of the kingdom! And still more abominable, if possible, is the proposition to pass a retrospective law, which would annul my present legal rights.

Would this, Mr. Editor, be distributive justice? Is it possible to conceive anything more diametrically opposed to the standard of right?

Allow me, then, in conclusion, to suggest the absolute necessity of organising at once into one working body all Members of the College who are Licentiates *extra urbem*, in order to resist, by every legal means in our power, the passing of a law so monstrously unjust. I enclose my card. Fiat Justitia Ruat Cœlum.

We should also individually petition both Houses of Parliament, and state our case, without delay, to the Home Secretary, Viscount Palmerston.

[Without agreeing with our correspondent, we have published his letter, mindful of the good old proverb, "*Audi alteram partem.*" But, "*Fiat Justitia Ruat Cœlum*" bases his argument upon a false foundation. The Extra-Licentiates of the Royal College of Physicians are not in reality Members of the College; they have nothing to do with the Institution, and cannot even acquire the Fellowship without first becoming Licentiates, just as if they had never before entered the college doors. Why, then, should these gentlemen acquire the position of the present Licentiates, who have undergone a more strict examination, and paid nearly sixty guineas for their diplomas, without some contribution to the College funds? The fact is, that, in the College of Physicians, as in all other institutions, the few must suffer for the many. The new Charter will prove a great benefit to the Profession at large, and we think it unwise for the Extra-Licentiates to complain, when, for a slight expense, they will gain increased honour.—Ed.]

REPORTS OF SOCIETIES.

WESTERN MEDICAL AND SURGICAL SOCIETY OF LONDON.

Dr. James Arthur Wilson, President, in the Chair.

The Seventh Annual Meeting was held on the 1st inst. Some preliminary business having been disposed of, the Report of the Council was read, which, having set forth the general prosperity and advance of the Society, adverted to the loss which it had sustained in the death of the late President, Dr. Mantell, and the necessity that had hence arisen for the appointment of a successor. This the Council had happily been able to accomplish in a manner acceptable to the Society at large, in the person of the esteemed senior physician of St. George's Hospital. It was also stated, that the library had been considerably augmented by donations and by purchases, and that it now consisted of little less than one thousand volumes. Its value to the members was sufficiently attested by the fact, that, during the past year, nearly two hundred volumes had been issued. The comfort and efficiency of the reading-room had been maintained by the plentiful supply of periodicals and other works, etc., etc. The Council hint that this part of their arrangements may be still further perfected, when the state of the funds will admit of it, by providing a constant attendant in the room, for the delivery of books as members require them. The papers read before the Society were in some instances highly interesting, from the rarity of the disease described, or the novelty of the subject treated of; while, in others, the practical character they exhibited gave them a value which none could fail to esteem. The Report concluded by calling upon all the members so to occupy the summer months, that the papers of the next Winter Session might show the fruits.

Resolutions were then passed, adopting the Report, and expressive of the thanks of the Society to the President and officers of the past year.

Dr. Wilson acknowledged the latter resolution in a characteristic address, to the wit, eloquence, and geniality of which it is impossible to do justice in the short space which we can devote to an abstract. It must suffice to indicate the chief points touched upon. After alluding to the loss which the Society, in common

with the whole world, had sustained in the death of Dr. Mantell, he expressed the pride he felt in having been chosen the successor to that distinguished philosopher, and his great anxiety to promote the interests and objects of the Society. He put forth the claims which it had on the Profession throughout the vast metropolitan district in which it was established, for encouragement and support, and mentioned some features in its management with peculiar commendation. The chief of these was, its admitting students to all its advantages, on payment of an almost nominal annual fee. One way in which he thought the Society, as a local institution, might be made particularly valuable, was by the study and investigation of the diseases prevalent in the district, especially those of the epidemic and endemic character. "When I," said Dr. Wilson, "was first honoured by my appointment to the chair I occupy this evening,—when I became your President,—I, in the way of business, took a survey of my presidency; and my eye glanced at once over a fair and goodly district, bounded by the Royal parks and gardens on the north and east, by the imperial Thames on the south, and open to the west for the extension of our empire. I saw Royal palaces mark the extension of one of its diagonals, Chelsea and St. George's Hospital the limits of another. We have a nucleus of wealthy influence in Belgravia, with its gardens, grounds, and cemetery, etc. In this survey it occurred to me, that there was a special interest in the designation of "Western," which attaches to it. By localising and organising our inquiries in our own district, by noting its epidemic and sanitary peculiarities, we may achieve a distinction for our "Western" medicine and surgery, and claim an attention from the public and the Profession which might be withheld from more elaborate essays and discussions on subjects which we have no special call to study. Pray suffer me, as your President, to urge this view of our work to be done. Let us be the "wise men" of the West, as far as is permitted us, in practical medicine and surgery. Government would thank us for the help which we can lend them in thus localising our information. If all the local Societies thus worked out their own particular "claims," there would be a rich yield of sterling ore. Might they not, should they not, hold an annual "collective meeting" at the central hall of the Royal Medical and Chirurgical Society, in Berners-street, and thus make their separate stores available for a common end? Pray receive this idea, and work it out if practicable.

The Annual Report, read by Mr. Keen, was highly gratifying in its financial and scientific details, as well as in the assurance that it gave of the existence of kind and cordial feelings among the members.

At its conclusion, the President declared the following gentlemen office-bearers for the ensuing year:—

President, Dr. James Arthur Wilson, M.D.; Vice-Presidents, Drs. C. J. B. Aldis, A. Whyte Barclay, Cahill, Simpson; Treasurer, Dr. Woolley; Council, Messrs. Batten, Davies, Jordeu, Meates, Dr. Smith, Mr. Webb, Drs. Cumming, Halford, Murphy, Synnot, Wane; Mr. Taylor; Secretaries, Dr. Seaton, Mr. Keen; Auditors, Mr. Martyn, Dr. Baines.

The proceedings terminated, as usual, by a conversazione.

SMALL-POX AND VACCINATION.

LETTER TO LORD VISCOUNT PALMERSTON.

(Copy.)

TO THE RIGHT HONOURABLE LORD VISCOUNT PALMERSTON, HER MAJESTY'S PRINCIPAL SECRETARY OF STATE FOR THE HOME DEPARTMENT.

My Lord,—I venture to address your Lordship on small-pox and vaccination, believing that the importance of these subjects to the community will be deemed my best apology for the intrusion; but I have an urgent motive for doing so at this time, as the attention of Parliament is already called to the subject of compulsory vaccination.

The prevention of small-pox and the extension of vaccination are deserving of the serious consideration of the Legislature. It is earnestly to be hoped, that the hasty, imperfect, and erroneous measures, relative to these and kindred subjects, which have emanated therefrom of late years, may soon be deliberately reconsidered, more efficient measures devised, and the administration of them delegated to active and appropriate authority. (3 and 4 Vic. c. xxix., 4 and 5 Vic. c. xxxii., 11 and 12 Vic. c. cxxiii.)

The annual sacrifice of human life by the retention and propagation of small-pox among us, the facility with which it can at any time be arrested by the prompt performance of vaccination, and the incalculable benefits which would flow from the universal adoption of that practice, have induced many humane and philanthropic persons, in and out of the Medical Profession, earnestly to call for compulsory vaccination.

Cordially concurring in the absolute necessity of stringent and decisive measures for the repression of small-pox, and earnestly desirous of the extension of vaccination, I am, nevertheless, decidedly opposed to *compulsory* vaccination.

I deem it unwise, unsafe, and if not, indeed, unconstitutional, at least it is inexpedient at present.

It would be felt as derogatory to the Medical Profession, and be found to be disparaging to the progress of vaccination.

Compulsory vaccination cannot be proved to be necessary, even if practicable, till more legitimate, consistent, and efficient measures for the repression of small-pox have been fairly tried in vain. A consideration of the principal causes of the neglect of, or the resistance to the practice of vaccination among the poor and ignorant, will, I think, warrant these conclusions. These causes may be thus briefly stated:—

1st. Apathy and indifference to remote danger.

2ndly. Suspicion and distrust of a measure connected with the Poor-law authorities.

3rdly. Fear of imparting other diseases with the vaccine.

4thly. Repugnance to the process, unless performed with lymph taken from a subject selected or approved of by themselves.

5thly. Ignorant and absurd prejudices, often dignified as religious scruples, against the introduction of even a mild disease of brute origin; and a perverse preference for the "real thing," however severe, because of human origin.

6thly. Exaggerated notions of the inadequacy of vaccination to protect from small-pox.

7thly. The facility and legal impunity with which, in the present defective state of the law, the absence of a public prosecutor, or a competent and efficient sanitary Board, small-pox is suffered to exist, and be propagated from person to person, and from place to place.

Vaccination really needs, deserves, and ought ever to be treated by the Legislature as a beneficence, and administered as a boon, and not, by a compulsory enactment of it, made odious to ignorance, already imbued with venial and mistaken prejudice.

Like education, it should be facilitated, fostered, and encouraged by liberal, gracious, and attractive measures. On the other hand, small-pox deserves, and requires to be treated as an unmitigated evil, as a great social pest, and its promoters and propagators as enemies dangerous to the public health.

The strong arm of the law can, and ought to, be effectually raised to repress and oppose its progress whenever and wherever it appears. (3rd and 4th Vict., c. 29.)

The 8th clause of the Vaccination Extension Act provides a punishment, by summary process and conviction, for the wilful production, or attempt at production, of small-pox by inoculation or infection.

But other provisions are required, and should be made clearly applicable to the negligent, reckless, or wilful exposure of the person, apparel, or any other infected article, either on the Queen's highway, or within any dwelling, or in any situation, so as to endanger the health and safety of Her Majesty's subjects, by the propagation of the disease.(a)

The provisions of the Nuisances Removal and Infectious Diseases Prevention Act should be extended to persons, apparel, bedding, and every other article infected with small-pox. (11th and 12th Vict., c. 123.) And it should be lawful also to remove, like any other nuisance, to a suitable place of safety, and for appropriate treatment, any person labouring under small pox, who, from contiguity or propinquity of residence, may by himself or herself, directly or indirectly, endanger the health and safety of a neighbourhood.

It should also be made compulsory on such persons, either by themselves, their friends, or attendants, to give immediate notice to the proper authorities, of the existence of small-pox within their dwellings, in order that such removal, if practicable, be promptly made, and, if impracticable, that proper measures of precaution to warn and protect the public be summarily put in force. Such dwellings, and all their inmates, should be placed under the

(a) Exposure of the person, while labouring under small-pox, on the Queen's highway, is an indictable offence, and, of course, an offence never indicted. I have often fruitlessly attempted to incite the local authorities to this interested but expensive duty.

observation and superintendence of the police or other local authority (acting under the direction and control of proper sanitary advisers) to carry out a rigid and efficient system of quarantine.

Pest-houses, or houses of reception, suitably appointed and properly situated, should be provided in every parish by the same authorities, under the same direction and control, for the reception of all classes of removable small-pox cases. And such authorities to be empowered to claim and recover reasonable fixed charges for such accommodation and treatment as the respective cases may require.(a)

Such system of quarantine or seclusion to be rigidly enforced for a period of not less than forty-two days from the development of the disease in ordinary cases, and for a period of not less than fifty-six days in severe cases, whether at the dwellings of the patients or in the pest or reception houses.

These, or similar measures for preventing the spread of small-pox, while they do not abridge the liberty of the subject to choose or reject the casual disease for himself or his dependents, very properly insist that the exercise and enjoyment of that liberty—questionable as it is in the abstract—should not be dangerous, as it now daily is, to the rest of the community. Such measures are based on principles already recognised as just and legitimate, but which need further extension and development under competent authority and administration.

The rigid enforcement of them would not only signally discourage the maintenance and effectually prevent the diffusion of small-pox, but would powerfully and speedily, though indirectly, promote the practice of vaccination.

The administration of such amended laws against small-pox propagation, as well as of all matters relating to the public health, should be confided to a properly-constituted Central Board of Health. To such a Board, also, should be delegated the administration of amended, or, more properly speaking, better devised laws for a system of national vaccination.

In the construction of such a system, it ought always to be borne in mind, that vaccination extension (not less than small-pox repression) is not merely an affair of a parish, a district, or a union, but a matter that concerns the entire community. A national system of vaccination should be entirely free from the grave objections and obvious defects appertaining to the present system, and should avoid its parsimonious and distasteful arrangements.

It should appoint and endow, in every city and town in the United Kingdom, possessed of the requisite population, (b) permanent stations, furnished with properly-qualified vaccinators and inspectors.

Such stations would attract a fair attendance, for vaccination, of young and healthy subjects, from whom a good and regular supply of vaccine lymph, with proper management, could generally be procured for the public benefit, and for the assistance of vaccinators less favourably circumstanced.

There are various important details, in the construction of such a scheme of national vaccination, requiring careful consideration. But to these I forbear more particularly referring at present.

I cannot, however, refrain, on this occasion, from the respectful but earnest expression of a hope that, in the consideration of such a measure intended for the public good—the active and efficient agents of which must be found in the Medical Profession, liberality to that profession may supersede present and prospective injustice.

Thus, by amended laws, an efficient sanitary police, the cordial and zealous co-operation of the Medical Profession, all the causes from the neglect of, or opposition to, vaccination will, in due time, with the spread of intelligence, and the growth of better feelings, under more extended experience, gradually fade away, and eventually disappear.

Small-pox will thus certainly and speedily be reduced to a perfectly manageable minimum, and exist only as a salutary stimulus to the practice of voluntary vaccination.

I have the honour to remain, my Lord,
Your Lordship's most obedient servant,
(Signed) Robert Ceely, F.R.C.S. Eng.,
and Surgeon to the Bucks Infirmary.

Aylesbury, March 30, 1853.

(a) Under proper sanitary regulations and control, such houses of reception might be made, at other times, subservient to the public health by isolating the early cases of other infectious diseases in any locality. Such houses are essential to an efficient system of sanitary police. They would save many lives, and materially abridge the present enormous annual expenditure caused by the propagation of small-pox and other infectious diseases.

(b) Not less than 60,000.

REGULATIONS FOR CANDIDATES FOR THE OFFICE OF ASSISTANT-SURGEON IN THE ROYAL NAVY.

Admiralty, March 1, 1853.

The Right Honourable the Lords Commissioners of the Admiralty are pleased to direct, that the following regulations, relative to the examination of candidates for the appointment of Assistant-Surgeon in the Royal Navy, shall in future be adopted:—

That a candidate for entry into the Royal Navy shall make a written application to that effect, addressed to the Secretary of the Admiralty; on the receipt of which application he will be furnished with the Regulations, and a printed form to be filled up by him, to show if he possess the required qualifications.

As vacancies occur, the number of candidates required will be ordered to attend at the Admiralty Office, bringing with them the requisite certificates, showing that they are fully qualified by age, professional ability, etc, when they will be examined by a Board of Medical Officers, to be named by their Lordships.

Such candidates as shall have been found in all respects competent for the appointment of Assistant-Surgeon, will be forthwith nominated to one of the naval hospitals at home, to await appointments to any of Her Majesty's ships; or, should their services not be immediately required, their names will be duly registered for early appointments, as vacancies may occur.

That no person be admitted as an Assistant-Surgeon in the Royal Navy who shall not produce a certificate from one of the Royal Colleges of Surgeons of England, Edinburgh, or Dublin, or from the Faculty of Physicians and Surgeons of Glasgow, of his fitness for that office; nor, as a Surgeon, unless he shall produce a diploma or certificate from one of the said Royal Colleges or Faculty, founded upon an examination to be passed subsequently to his appointment of assistant-surgeon, as to his fitness for the situation of surgeon in the navy; and in every case the candidate producing such certificate or diploma, shall also undergo a further examination, touching his qualifications in all the necessary branches and points of medicine and surgery for each of the steps in the navy medical service; and that previously to the admission of Assistant-surgeons into the Navy, it will be required that they produce proof of having received a preliminary classical education, and that they possess, in particular, a competent knowledge of Latin; also

That they are of good moral character, the certificate of which must be signed by the clergyman of the parish, or by a magistrate of the district.

That they have served an apprenticeship, or have been engaged for not less than six months, in practical pharmacy.

That their age be not less than 20 years nor more than 26 years, and that they are unmarried.

That they have actually attended an hospital in London, Edinburgh, Dublin, Glasgow, Aberdeen, Manchester, or Bristol, for eighteen months, subsequently to the age of 18, in which hospital the average number of patients is not less than 100.

That they have been engaged in actual dissections of the human body twelve months, the certificate of which from the teacher must state the number of subjects or parts dissected by the candidate.

That they have attended lectures, etc., on the following subjects, at established schools of eminence, by physicians or surgeons of the recognised Colleges of Physicians and Surgeons, in the United Kingdom, for periods not less than hereunder stated; observing, however, that such lectures will not be admitted if the teacher shall lecture on more than one branch of science, or if the lectures on anatomy, surgery, and medicine, be not attended during three distinct winter sessions of six months each.

Anatomy	Or general anatomy, 12 months; and comparative anatomy, 6 months	18	months.
Surgery	Or general surgery, 12 months; and military surgery, 6 months	18	,,
Theory of Medicine	If the lectures on the theory and practice of medicine be given in conjunction, then the period required is 18 months	6	,,
Practice of ditto (a)		12	,,
Clinical lectures (at an hospital as above)	On the practice of medicine	6	,,
	On the practice of surgery	6	,,
Chemistry	Or lectures on chemistry, 3 months; and practical chemistry, 3 months	6	,,
Materia medica		6	,,
Midwifery	Accompanied by certificates stating the number of midwifery cases personally attended	6	,,
Botany		3	,,

(a) 6 months' lectures on pathology, if given at a University where there may be a professorship on that branch of science, will be admitted in lieu of six months' lectures on the practice of medicine.

In addition to the tickets for the lectures, certificates must be produced from the professors, etc., by whom the lectures were given, stating the periods (in months) actually attended by the candidates. The time also of actual attendance at an hospital or infirmary must be certified; and the tickets as well as certificates of attendance, age, moral character, etc., must be produced by the candidate previously to his examination.

Although the above are the only qualifications which are absolutely required in candidates for the appointment of Assistant-Surgeon, a favourable consideration will be given to the cases of those who have obtained the degree of M.D. at either of the Universities of Oxford, Cambridge, Edinburgh, Dublin, Glasgow, London, or Aberdeen; or who, by possessing a knowledge of diseases of the eye, and of any branch of science connected with the Profession, such as medical jurisprudence, natural history, natural philosophy, etc., appear to be more peculiarly eligible for admission into the service, observing, however, that lectures on these or any other subjects cannot be admitted as compensating for any deficiency in those required by the Regulations.

By the rules of the service, no Assistant-Surgeon can be promoted to the rank of Surgeon until he shall have served three years, (one year of which must be in a ship actually employed at sea,) and can produce a diploma from one of the before-mentioned Royal Colleges or the Faculty of Physicians and Surgeons; and it is resolved, that not any diploma or certificate of examination from either of the aforesaid Royal Colleges shall be admitted toward the qualification for Surgeon, unless the diploma or certificate shall be obtained on an examination passed after a period of not less than three years' actual service, observing, that no one can be admitted to an examination for Surgeon unless as hereinbefore mentioned he can produce a diploma, together with the most satisfactory certificates that he has performed on the dead body, under the superintendence of a professor or teacher of known eminence, all the capital operations of surgery, and is perfectly competent to perform any operation with skill and dexterity, and thoroughly acquainted with the anatomy of the parts involved in such operation; without which qualification no one hereafter can be promoted to the higher branches of the service; and, whenever assistant-surgeons already in the service (whose professional education may not be in accordance with the above) obtain leave to study previously to their passing for surgeon, they will be required, on their examination, to produce testimonials of their having availed themselves of the period of leave to complete their education agreeably to these regulations generally.

It is also to be observed, that candidates who may be admitted into the Naval Medical Service, must serve in whatever ships, etc., they may be appointed to; and that, in the event of their being unable to do so from sea-sickness, their names cannot be continued on the Naval Medical List, nor can they, of course, be allowed half-pay.

By command of their Lordships,

R. Osborne.

MEDICAL NEWS.

Royal College of Surgeons.—The following gentlemen having undergone the necessary examinations for the diploma, were admitted Members of the College at the meeting of the Court of Examiners, on the 15th inst.:—

Adam, William Hogarth, Royal Navy.
Atkinson, Harry Leigh, Weaverthorpe, Yorks.
Brake, John, Tottenham.
Cockcroft, Thomas Howarth, Keighley, Yorks.
Edwards, Thomas Francis, Denbigh.
Goldsbro', Thomas W. J., Welchpool, Montgomeryshire.
Jenkins, William Gabe, Aberystwyth, Cardiganshire.
Palmer, Thos. Chambers, St. Kitts, West Indies.
Marchant, W. Robert Fann, North Curry, Somerset.
Stedman, Frederick Savignac, Great Bookham, Surrey.
Steventon, William, Cheadle, Staffordshire.
Tunmer, James Robert, Ipswich, Suffolk.

The following gentlemen were admitted members on the 18th instant:—

Barton, George Pigott, Rolands Castle, Hants.
Cremen, David, Cork.
Frazer, Wynne Peyton, Dublin.
Mott, Marcus William, Church Stretton, Shropshire.
Turner, Charles, Grantham, Lincolnshire.

Licentiates in Midwifery.—The following members of the Royal College of Surgeons have just been admitted to this distinction:—

Byrne, Oscar, Newcastle-under-Lyme.
Davies, Thomas George David, St. Andrews-court, Holborn,
Edmunds, John, Wrexham.
Fisher, Thomas, Buckfastleigh, Devon.
Hoffman, Octavius William, Reading.
Humphry, John, Birmingham.
Nicholls, James, Trekenning.
North, Samuel Wlliam, York.
Muriel, John Thomas, Ely.
Rogers, Thomas Lawes, Alvediston, Wilts.
Stutter, Frederick Augustus, Wickhambrook.
Tibbits, John, Warwick.
Vinall, John, Hackney.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, April 14, 1853:—

Archer, John, Saffron Walden.
Atkinson, Harry Leigh, Weaverthorpe, Malton, Yorkshire.
Cheatle, Thomas Henry, Blaford, Oxon.
James, Edward, Exeter.
Kitching, Charles Watson, Smarden, Kent.
Mathias, David, Cardigan.
Northover, Frederick, Winchester.
Parker, William Bird, Brightlingsea, Essex.
Prentice, Edward, North Walsham, Norfolk.
Thomas, Richard, Llanelly, Carmarthenshire.
Walker, William, London.
Wright, John, Mountsorrel, Leicestershire.

APPOINTMENTS.

Naval.—Surgeon John W. Bowler, (1837,) to be Surgeon-Superintendent of the Phœbe Dunbar.

Hospital for Sick Children, Great Ormond-street.—Mr. Athol A. Johnson has been appointed to the office of Surgeon to this Institution, vacant by the resignation of Mr. Pollock.

Haslar Hospital.—Dr. J. Wilson has been appointed Medical Inspector at this establishment, vice Dr. Anderson, deceased.

India.—Bombay: Senior-Assistant Surgeon R. Woosnam, to be Surgeon, vice Peart, retired. Madras: Senior-Assistant Surgeon T. Glen Johnston, M.D., to be surgeon, vice Wight, retired. Bengal: Senior-Surgeon Charles Harnsby Francis, 23rd Native Infantry, to be Superintending-Surgeon, vice Jackson, retired. Assistant-Surgeon Duncan M'Rae to be surgeon, vice Wrightson, deceased. Surgeon C. Mackinnon is removed from 9th Battalion of Artillery, and posted to the Dum-Dum Artillery Division. The following removals of superintending-surgeons will take place from the 1st proximo, consequent on the retirement of Superintending-Surgeon W. Jackson:—Superintending-Surgeon B.W. Macleod, M.D. and C.B., from the Agra to the Sirhind Circle; Superintending-Surgeon J. Grant, from the Dacca to the Agra circle.

Radcliffe Infirmary, Oxford.—Mr. Frederick Symonds was elected one of the Surgeons to this Institution on the 14th inst.

DEATHS.

Blair.—April 15, at Brighton, Dr. Thomas Blair, aged 89.—A.M. and M.D. Edin. 1792; L.R.C.P. Lond. 1794. Dr. Blair was appointed Physician to the Army in 1794, but soon resigned; when the Army returned from Corunna he was appointed Physician to the Military Hospital at Lewes, Sussex, and officiated for four months; appointed Physician to Brighton Dispensary in 1817, and officiated for ten years.

Harless.—Lately, at Bonn, Dr. Harless, Dean of the Faculty of Medicine in the University of Bonn, aged 80. Dr. Harless was son of the philologist of the same name, and has himself occupied, since 1818, the Chair of Therapeutics and Materia Medica in the above-named University. With the exception of the illustrious Hufeland, Dr. Harless has published the greatest number of German works on the medical sciences. He was also the founder and principal editor of the most celebrated medical journals published in Germany.

Kittermaster.—March 10, at Warwick, Canada West, H. F. J. Kittermaster, surgeon, eldest son of Dr. James Kittermaster, of Meriden, Warwickshire.

The Levee.—At the levee, on Wednesday last, Dr. Hunter Lane was presented by Dr. J. C. B. Aldis. The following were among the company:—Drs. Faraday, Ashley, Aldis, Evans, Forbes Winslow, M'Cann, and Gillkrest; also Mr. Erasmus Wilson.

The Jacksonian Prize of twenty guineas, with honorary certificate, has just been adjudged by the Council of the Royal College of Surgeons, to Mr. Henry Thompson, M.B. Lond., M.R.C.S., etc., of Welbeck-street, Cavendish-square, for his essay, "On the Pathology, Causes, and Treatment of Stricture of the Urethra." The subjects for the ensuing prizes will be found on reference to our advertising columns.

The Income Tax and the Profession.—The Chancellor of the Exchequer, in his Budget speech, thus refers to the subject of the tax, as bearing upon professional income:—"I shall now touch briefly upon the remaining case of schedule D, as respects the professions. I find, that the whole payment under schedule D, proceeding from professional persons, including certain amphibious classes, is about 300,000*l.*, or rather more than one-twentieth part of the whole tax; but, taking out several persons who may be considered as traders, such as auctioneers, house-agents, and farm-agents, the nett sum that may be said to be paid by the professions is about 250,000*l.*, which is about 1-22nd part of the whole Income Tax. Now, Sir, I do not at all deny that the case of professional men appeals to the sympathies. In my opinion, it is one of the reasons which indicate that the tax ought to be a temporary tax; but I hope the Committee will pause before it rushes to the conclusion, that upon account of the case of professional men they will proceed to such a labour as that of breaking up and reconstructing the Income Tax. It would be a pity to find yourselves compelled to break up the Income Tax on account of those whose case is so limited in comparison to the whole range of the tax, that they only pay 1-22nd part of the amount. But then you may say, "Why not exempt them altogether; why not give them a favour?" And there is a great deal in point of feeling to recommend that; but there is a great deal in point of feeling to recommend many things in this world of ours, upon examination of which you find insuperable obstacles in the way of your giving scope to that feeling. Now, I will tell you why you cannot exempt professional incomes without breaking up the scheme of the tax. In the first place, there are the auctioneers, house agents, farm agents, and others I have referred to, now nestling within the professions, with whom there would be considerable difficulty if there were an attempt to exclude them from benefits to which persons in the position of professional men were to be entitled. Again, you would have great difficulty in knowing what to do with the clergy. Your feeling would tend with equal force both ways. You would think it extremely offensive to reconstruct the Income-tax on behalf of professional men, and yet to make the clergyman with 150*l.* or 200*l.* pay the higher rate. But, if you let him in, I am not so sure that you would be pleased to extend the same favour to the dean and the bishop. You would find the same difficulty there; but there are other and more serious difficulties than those. Many persons holding salaried offices, not public servants, now charged in schedule D, have certainly a much worse tenure, and an inferior interest in their incomes than professional men. Above all, there is what I have warned you of in respect to averaging classes. A large class of retail traders have an interest in their trades much inferior to that of professional men. Their shops, and trades, and businesses change hands much quicker. They are creatures of to-day, gone to-morrow; and professional men, as a class, putting aside the exceptional case of sickness, are permanence itself compared with a certain description of the smaller class of traders.

Vaccination Extension Bill.—On Thursday, the House of Lords went into Committee on this Bill. Clauses 1 to 7 were agreed to. On Clause 8, providing that notice shall be given by the registrar with regard to vaccination, Lord Ellenborough called attention to what he thought was an inadvertency in this clause. It directed that the registrar should prepare the notice in the manner provided, pointing out that it was the duty of the father or mother, or person having charge of the child, to see that it was vaccinated in the manner directed by the Act; but it was directed likewise that the registrar should deliver such notice at the time of the registration to the person giving information thereof, who was to give information to the father or mother. Now, the person who came to register the birth might be almost wholly unconnected with the father or mother, and yet by this Bill it was proposed to impose upon that person the burden of giving notice to the parents or persons having charge of the child, under the penalty of fine or imprisonment. He should propose, therefore, that instead of the provision he had alluded to, the registrar should deliver the notice of vaccination to the father or mother of the child, or to such other person as might have charge of it, and should, together therewith, deliver a notice of the time and place within the district in which he officiated at which the medical officer or practitioner should attend for the purpose of vaccinating. His Lordship said in conclusion:—"A Society had, he believed, been formed in this country,—he would not venture upon the extraordinary name by which they were designated,—to investigate the cause and the extent of epidemics; and their view, he understood, was, that there should be in every union or in every district a public vaccinator, whose duty it should be not to remain fixed in one place, but to go from house to house to propose to operate upon those children or persons who he found had not been vaccinated. He thought the nearer this system was approached, the more perfect they would make this Bill; and since their Lordships were disposed to adopt the principle of compulsory vaccination, it was most desirable to have every ancillary provision to effect that object." The clause, as amended, was then agreed to. The remaining clauses of the Bill were also agreed to.

Royal Veterinary College.—On Saturday last, the students of the Royal Veterinary College, presented to their Lecturer on Chemistry a magnificent flower-vase, mounted in ormolu, with a pair of candelabra to match, and also a pair of richly-ornamented silver covers. On the vase was the following inscription:—"Presented, with other articles of *vertu*, by the Students of the Royal Veterinary College, to W. J. T. Morton, Esq., Professor of Medical Chemistry and Materia Medica in that Institution,—a tribute of esteem and gratitude, equally in acknowledgment of his assiduities as a teacher and his kindness as a friend.—Session, 1852-3."

Monument to Dr. Jenner.—The Dutch medical men in Java, Sumatra, Banda, Amboyna, Ternate, and other parts of the Indian Archipelago, have remitted to this country 222 florins towards the monument some time since proposed to be erected to the memory of Dr. Jenner.

Epidemiological Society.—Dr. Babington, the President, and a few other members of the Epidemiological Society, being desirous of expressing their sense of the zeal and ability displayed by Mr. Tucker, in originating and afterwards in promoting the objects of the Society, have presented that gentleman with a handsome secretaire, on which is affixed an appropriate inscription. Dr. Babington presented the plate with the inscription to Mr. Tucker, on the evening of the *soirée* which Dr. Babington last week gave to the members of the Epidemiological Society, addressing Mr. Tucker in the following terms:—"A few friends, including myself, being deeply impressed with the zeal and ability which you have evinced, first in originating, and subsequently in establishing the Epidemiological Society, and admiring the untiring energy which you have since exerted in endeavouring to promote its objects, have felt anxious to manifest their sense of your merits and services by requesting your acceptance of some token of their regard. It is with much pleasure, therefore, that, in fulfilment of their wishes and my own, I present you with this inscription to be affixed to a secretaire, which, however small its intrinsic value, we have selected as an appropriate offering to one who has so efficiently fulfilled the very arduous duties of honorary Secretary to our Society." To which Mr. Tucker replied:—"I accept with much pleasure the testimonial of approbation for the services it has been my pride to render to the cause in which you and others are so warmly interested. It is the cause of suffering humanity. I shall always look back with great satisfaction at having been the originator of a Society which has displayed, even in its very infancy, its capability of doing great good. To those friends who have joined in presenting me with this mark of their esteem, I hope you will convey my sincere and heartfelt thanks, and accept the same for the very kind and flattering expressions which you have been pleased to use in presenting it."

India.—Kurrachee.—By the last advices, fevers were generally prevalent, and small-pox had made its appearance.

The Agamemnon.—The Illustrious, old 74, which has been fitted for a block-ship for Spithead, without steam, is now ordered to be temporarily fitted as an hospital-ship, to accommodate the convalescents of the Agamemnon, as they return from Haslar Hospital.

Accident to Liebig and the Queen of Bavaria.—Munich, April 10.—Liebig was last night giving a lecture on chemistry at the Palace, before Queen Maria, the ex-King Louis, and his Queen Theresa, and the younger branches of the Royal Family, when a bottle of oxygen gas being improperly handed to him by his assistant, who mistook it for another bottle, an explosion took place, and the bottle flew into a thousand pieces. Fortunately the explosion occurred in an inner room, the door of which was open. Still some fragments of the glass passed through the door, and slightly wounded some members of the Royal party who were sitting in the front rank. The Professor was also slightly injured, having escaped with his life by a sort of miracle.

France.—The Prefect of Police has just published an order concerning coloured sweetmeats, alimentary substances, and the

employment of copper vessels. It interdicts absolutely the use of any mineral substance, with the exception of Prussian blue, chalk, and ochre, in colouring bonbons, pastilles, liqueurs, sweetmeats, and pastry.

SPAIN.—Five physicians, who had been sentenced to transportation for having taken part in the insurrectionary movement in Madrid, in December, 1851, have been pardoned.

MORTALITY IN PUBLIC INSTITUTIONS for the week ending April 16:—

	Males.	Females.	Total.
Workhouses	83	72	155
Military and Naval Asylums ..	8	1	9
General Hospitals	31	16	47
Hospitals for Special Diseases .	4	1	5
Lying-in Hospitals	...	...	...
Lunatic Asylums	7	3	10
Military and Naval Hospitals..	10	..	10
Hospitals and Asylums for Foreigners	..	..	..
Prisons	5	...	5
	148	93	241

MORTALITY NOTABILIA.—A declining rate of mortality affords evidence of a gradual improvement in the public health. Since the weekly mortality rose to its maximum, at the end of March, the number of deaths fell, in the first week of April, to 1340, and in that which ended last Saturday, to 1243. Since the week ending March 26th, in which it was 33·3°, the mean temperature has risen to 44·4°. In the ten corresponding weeks of the years 1843-52, the average number of deaths was 972, which, if raised in proportion to increase of population, gives a mortality for last week of 1069. The return of last week, therefore, shows an excess of 174 above the estimated amount. The two complaints of an epidemic character, which, from their fatal effects, appear to prevail most at present, are typhus and hooping-cough, the former having destroyed last week 65 lives, the latter 68. Bronchitis, though much abated, is still marked by a severity not usual at this season; it was fatal in 128 cases, while the corrected average of corresponding weeks does not exceed 84. Phthisis destroyed 165 persons. Pneumonia has declined to 89, which is also, however, greater than is usual in this month. At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·943 in.; on Monday and Friday it was above 30 in. The mean temperature of last week was 44·4°, which is slightly below the average of the same week in 38 years. On Wednesday, Thursday, and Friday, the mean daily temperature was below the average of the several days, and on the first-mentioned day it was 6·4° below it. On these days the wind blew from the north-east; at other times from the north, or north-west. The mean dew-point temperature was 35·6°.

DEATHS *in the Metropolis for the week ending Saturday, April* 16, 1853.

CAUSES OF DEATH.	APRIL 16. 0	15	60	All Ages.	Sum of Ten Weeks.
ALL CAUSES	538	419	247	1243	9719
SPECIFIED CAUSES	538	419	246	1203	9648
1. Zymotic (or Epidemic, Endemic, and Contagious) Diseases ...	155	48	16	219	1926
SPORADIC DISEASES:					
2. Dropsy, Cancer, and other Diseases of uncertain or variable seat ...	5	28	24	57	514
3. Tubercular Diseases	75	148	7	240	1961
4. Diseases of the Brain, Spinal Marrow, Nerves, and Senses ...	64	39	32	135	1150
5. Diseases of the Heart and Blood-vessels	3	31	17	51	344
6. Diseases of the Lungs and of the other Organs of Respiration ...	119	67	65	251	1609
7. Diseases of the Stomach, Liver, and other Organs of Digestion...	29	23	17	69	555
8. Diseases of the Kidneys, etc. ...	...	3	5	8	118
9. Childbirth, Diseases of the Uterus	...	4	...	4	111
10. Rheumatism, Diseases of the Bones, Joints, etc.	3	4	3	10	91
11. Diseases of the Skin, Cellular Tissue, etc.	...	1	...	1	13
12. Malformations	4	...	...	4	24
13. Premature Birth and Debility ...	31	4	2	37	236
14. Atrophy	23	1	4	28	162
15. Age	...	...	51	51	511
16. Sudden	2	1	...	3	81
17. Violence, Privation, Cold, and Intemperance	25	17	3	45	242
CAUSES NOT SPECIFIED	...	...	1	40	71

BOOKS RECEIVED.

The Medication of the Larynx and Trachea. By S. Scott Alison, M.D., etc.
Modern Domestic Medicine. Eleventh Edition. By Thomas J. Graham, M.D., etc.

TO CORRESPONDENTS.

[To the Editor of the Medical Times and Gazette.]

SIR,—Let me point out the want of consistency of Homœopaths, as illustrated by a case which has recently come under my observation. The patient suffers from phthisis, and has been for a long time in attendance upon a Homœopathic Dispensary. She offered to show me her prescription paper, which at first I cared little to look at; but what stared me in the face when I took it up? Ol. jec. aselli in teaspoonful doses! There was nothing else: no infinitesimal doses. I am, &c.

Liverpool. T.

Dr. Moriarty, Dieppe.—We cannot insert Dr. Moriarty's letter without committing an act of great injustice towards a large class of highly educated gentlemen practising in England and Wales. Dr. Moriarty evidently confounds the Licentiates of the Apothecaries' Society of London with the Pharmaciens of the Continent, although every English Practitioner knows that there is not the least analogy between the two in point of education and professional standing. Dr. Moriarty is equally ignorant, apparently, of the nature of the education and examination at the London College of Surgeons.

Mr. H. P. Leech is thanked for his note and enclosure. Bills similar to that forwarded are, we regret to say, too common. The "regular quack" ought to be restrained by law. When occasion serves, we will use the trash.

Astley Cooper Prize.—The Fifth Triennial Prize of three hundred pounds, under the will of the late Sir Astley Cooper, Bart., will be awarded to the Author of the best Essay or Treatise on "The Cause of the Coagulation of the Blood." The condition annexed by the testator is, "That the essays or treatises written for such prize shall contain original experiments and observations, which shall not have been previously published; and that such essays or treatises shall (as far as the subject shall admit of) be illustrated by preparations and drawings, which preparations and drawings shall be added to the Museum of Guy's Hospital, and shall, together with the work itself and the sole and exclusive interest therein and the copyright thereof, become thenceforth the property of the Hospital, and be transferred as such by the successful candidate." It is the will of the founder that no physician, or surgeon, or other officer for the time being, of Guy's Hospital or of St. Thomas's Hospital, nor any person related by blood or affinity to any such physician or surgeon, or other officer for the time being, shall at any time be entitled to claim the prize; but, with the exception here referred to, this (the Astley Cooper) Prize is open for competition to the whole world. Candidates are informed that their essays, either written in the English Language, or, if in a Foreign Language, accompanied by an English translation, must be sent to Guy's Hospital on or before January 1st, 1856, addressed to the Physicians and Surgeons of Guy's Hospital. Each essay or treatise must be distinguished by a motto, and be accompanied by a sealed envelope, containing the name and address of the writer. None of the envelopes will be opened, except that which accompanies the successful treatise. The unsuccessful essays or treatises, with the illustrative preparations and drawings, will remain at the Museum of Guy's Hospital until claimed by the respective writers or their agents.

J. R. Stevens, Esq., Princes-square, Plymouth.—The cases referred to will be published as soon as our convenience will allow. Their interest will not lessen by keeping. As a rule, we cannot return rejected communications: Hammell's case, however, will be published, and it will consequently be unnecessary to return the notes.

Students.—The Dentoxide of Nitrogen, or Nitrous Gas, cannot be respired in air, except under the form of nitrous acid vapour. Workmen who are employed in gilding in the humid way are exposed to these fumes, and occasionally suffer severely from them. It has been shown, that in the workshops of Paris the men do not suffer much, owing to the fumes being respired only to a small extent, and being probably much diluted.

M.D., etc.—The Carsbalton Hospital was founded some eight or ten years ago by a few benevolent gentlemen, among whom the honoured name of Dr. Forbes stands pre-eminent, for the purpose of affording the sick poor a temporary asylum where they might have the inestimable advantages of good, pure air and wholesome food, before being obliged to return to their laborious occupations. A subscriber's letter must be obtained.

COMMUNICATIONS have been received from—

J. OGDEN FLETCHER, Esq., Manchester; Dr. THOMSON, Liverpool; C. H. ROPER, Esq., Exeter; J. PROPERT, Esq., New Cavendish-street; ROBERT CEELY, Esq., Aylesbury; Dr. MORIARTY, Dieppe; J. N. STEVENS, Esq., Plymouth; J. L. LEVISON, Esq., Brighton; FIAT JUSTITIA RUAT CŒLUM; Professor HOFMANN, Royal College of Chemistry; JAMES YEARSLEY, Esq., Savile-row; HERBERT WILLIAMS, Esq., Medical Benevolent College; Dr. M'WILLIAM, Trinity-square; AN EXTRA-URBEM LICENTIATE; Lord LYTTELTON; THE HON. SECRETARIES OF THE WESTERN MEDICAL AND SURGICAL SOCIETY.

BORNEO.—The first bishop appointed to this new diocese is the Rev. F. T. Macdougall, who was educated for the Medical Profession, and who practised, for a considerable time, in connexion with King's College.

ORIGINAL LECTURES.

CLINICAL LECTURE
ON
DISEASES OF THE SPINE.

DELIVERED AT
St. Thomas's Hospital.

By SAMUEL SOLLY, Esq., F.R.S.

Gentlemen,—In the whole range of surgery, there is no subject of deeper interest in a physiological, or of greater importance in a practical, point of view, than that of diseases of the spine. The term, like that of diseases of the head, is a very comprehensive one; for it includes all morbid changes of the bones and ligaments of this beautiful piece of mechanism, as well as the cerebro-spinal centre, with its protecting and nutrient membranes.

It includes all morbid changes, whether those changes are the result of disease or of accident. And when we reflect, that the effect of these morbid changes, if they proceed unarrested by the skill of the surgeon, is paralysis and death, we need no additional stimulus to encourage us to study their diagnosis and treatment, to give us the power of averting such evils.

I have frequently had occasion, in this theatre, to call your attention to the ordinary diseases of the spine, as indicated by lateral and angular curvature, and to point out the results of such disease, and the curative measures that should be adopted.

To-day I wish to interest you in a class of cases which are more obscure in diagnosis, and which are more insidious in their progress, but scarcely less serious in their results.

The affections to which I refer commence in the ligaments of the spine, sometimes induced by cold, sometimes by direct injury, such as a sprain, blow, or fall.

The first case that I shall relate to you has already, I think, interested you in our clinical visits in the wards, and you will, I trust, soon recognise it again. This case was sent to me, with the accompanying note, from my friend, Mr. Else, of Camberwell:—

"My dear Sir,—The bearer of this has a strange neuralgic affection, which totally deprives him of power to work. The source of the mischief appears to be in the left branches from the upper dorsal nerves, affecting especially the median nerve of the left arm and forearm. Being a case I thought interesting to you, and your superintendence advantageous to the poor fellow, I have taken the liberty to ask you to make him an in-patient of the hospital for a short time.

"I remain, my dear Sir, yours faithfully,
"J. O. Else.

"308, Albany-road, Oct. 22, 1852."

Case.—Mr. Brake's notes.—William Voller, aged 40, a labourer at a gas factory, admitted into George's Ward, under Mr. Solly's care, October 26, 1852.

"Exposed much to heat and cold, but enjoyed good health till fourteen weeks ago. About that time, noticed a severe catching pain in the right loin, upon attempting to lift the iron scoop used in his employment; lasted about two days; was under treatment, and got better. Subsequently, the body became covered with a thick rash, with formication over the arms, trunk, and front of the legs, but without loss of power. Had diarrhœa and pain in the abdomen; was under treatment six weeks, and recovered. Returned to work on a Monday, but, not being strong enough to keep on, did not return again till the following Friday, but obliged to give up after two nights' work, on account of weakness. Remained at home for about a fortnight; at the expiration of that time, while walking, had a severe pain in the back just between the shoulders. The same night, this pain in the back continuing, he noticed a severe tingling in the left shoulder and along the side of the arm and forearm, followed by numbness. Applied a mustard poultice to the back and forearm; found afterwards that he had very little use in the arm, and no relief from pain; was cupped, and applied a liniment, but without any beneficial result; also tried continuous poultices for a fortnight, without relief. Cannot rest upon the shoulder without pain and uneasiness."

The deduction which I make from this history is, that, in the first instance, this man was attacked with rheumatic inflammation of the ligaments of the lower cervical portion of the spine, extending from thence to the theca vertebralis, accompanied by some effusion on the cord. The severe catching pain in the right arm, on attempting to move his scoop, is not characteristic of simple rheumatic affection of the muscles. This pain is followed by a severe tingling down the arm. Now, I need only remind you of what takes place if you strike the ulna nerve, as it runs over the inner condyle of the humerus, or, in ordinary language, the funny-bone. This tingling is succeeded by numbness; in other words, the nerve, which was first only irritated, is now compressed and partially paralysed. I dare say that most of you know the sensation of numbness which results if you go to sleep in your chair, overdone by your nocturnal studies, with one leg crossed over the other. When you awake, you find your leg still asleep; it is numbed from the pressure of the popliteal nerve on one side by the knee of the other leg. But, to return to the case.

Oct 28.—Treatment: Hydr. iodidi gr. i. ter die; moxa to side of spine.

Nov. 6.—Mouth a little affected; pain and uneasiness less on lying on right side; still continues on the left shoulder. Pil. bis in die.

8th—Gums very tender. Pil. omitted.

17th.—Much better. Only complains of numbness along forearm and two last fingers.

29th.—All pain and uneasiness left him.

Dec. 4.—Cured.

If this man had not been actively treated, both before his admission by Mr. Else, who kindly sent the man up here, and had not this, too, been followed up, on his admission, by complete salivation, he would have had ultimately more advanced disease of the cord, and, in all probability, entire paralysis. Under the continued use of mercury, and steady counter-irritation, the deposit has been absorbed, and the poor fellow restored to health.

You have all seen instances in this hospital of men brought in perfectly paraplegic, having lost all motion and sensation below a certain portion of the spine. You inquire into the history of the case, and you learn that the poor fellow, most probably, has fallen from a great height, perhaps from the maintop of a vessel in the river. His existence is prolonged a few days, more or less, according to the seat of injury; and then, in the dead house, you find, on *post-mortem* examination, a fracture of the vertebræ and laceration of the spinal cord. You do not so often see in hospitals those cases in which the effect of the injury is slighter, and therefore little considered at the time, but setting up disease which produces very serious consequences in after life. I have lately been much interested in a case of this kind occurring in my private practice.

The subject of it was a fine young man, about 23 years of age. About two years and a-half previous to his consulting me, (on the 4th of September, 1852,) he fell from a height of

sixteen or seventeen feet, with his back flat on a hard gravel walk. He was stunned at the time, though he did not strike his head directly. He received immediately the best advice. was bled from the arm, and leeched over the left hip. He was very sore, and had severe headaches for some days afterwards, and was not able to walk until seven or eight weeks had elapsed from the time of the injury. He was then examined by several medical men, and pronounced sound. After this, he went abroad, and lived rather freely. Just ten months before he consulted me, he began to suffer from involuntary seminal emissions, accompanied with Great feeling of weakness in the back. About two months after these first appeared, he remembers finding a swelling on the left side of the loins; but this inconvenienced him so little, that he did not even mention it to his medical attendant, who treated him for dyspepsia, ordering him plenty of horse and pedestrian exercise, with tonics; but he continued to get worse, and was obliged to return to England. On his arrival, he applied to an eminent surgeon, who treated him for the spermatorrhea with the caustic catheter. He remained under his treatment for two months, but without improvement, when his father brought him to me. From the history which I elicited, by a careful cross-examination, I came to the conclusion, that the spermatorrhea had a spinal, not generative origin. On stripping him, I found an elongated swelling, about four inches in length, on the left side of the lumbar vertebræ. It did not fluctuate, but it was elastic.

On rapping the spine in this situation he suffered a distinct, though not severe thrilling pain, shooting from the spine down the legs, with some numbness. He now stated, that he occasionally suffered from the same kind of pain when walking or riding, and from the motion of a railway carriage. He also complained of a feeling of weakness in both legs, but more especially in the right. I was also informed, that he slightly dragged that leg in walking, and that he could not balance himself naturally. His countenance was anxious, and he looked out of health. The nocturnal emissions were occurring frequently, without erection or pleasurable sensations. I found spermatozoa in his urine, on examination under the microscope.

Putting all these facts together, I came to the conclusion, that the spine had been injured by the blow from his fall about two years and a-half previously. I was rather afraid, from the swelling in the mass of the erector spinæ muscles, that an abscess was forming in that situation, and that the disease was not limited to the ligaments. Nevertheless, I had great hopes that it was not so serious as that, inasmuch as he bore firm pressure and rapping on the spine too well for there to be much serious disease of the bones; but I had no doubt of there being chronic inflammation, with some deposit of the ligaments of the vertebræ, and also of the theca vertebralis.

With this view of the pathology of the case, I ordered him to be confined to the house, and almost entirely to the sofa, to have a large moxa made over the swelling, to take quinine, in doses of two grains ter in die, in the infusion of roses, with sulphate of magnesia. To remain quietly in the country; scarcely move off the sofa; on no account to ride, either on horseback or in any kind of carriage, railway or otherwise; to have meat, but not to take any wine or beer.

On the 24th of September I changed this to the carbonate of iron in ten grain doses, with pil. aloes c. myrrh. at night.

On the 22nd of October, 1852, about six weeks from his consulting me, I received the following from his medical attendant in the country:—

"I am glad to say the — V. T. is going on as favourably as when you saw him. The issue discharges well. He has not any numbness on tapping the spine, or any disagreeable sensation. He has had several seminal emissions, but they have been attended with natural feelings, and have not left him in the weak, nervous state as when they occurred some months ago. When I saw him yesterday, he complained of feeling weaker in the right leg than the left, but not in any pain."

From this date he gradually but steadily improved—the issue was healed on the 4th of December, and now (January, 1853) is quite restored to health; the swelling has been entirely absorbed, and on both sides the loins are exactly the same size and shape. The nocturnal emissions have ceased; the urine is free from spermatozoa.

Feb. 7.—He has all the appearance of health, and, though still nervous about a relapse, he has no single sign indicating it. He can bear any tapping on the spine from the top to the bottom. He has been out with his gun for several hours during the day, and feels no weakness or unnatural sensation in the lower extremities.

The result of this case is highly satisfactory, and it must encourage you to pursue a similar plan of treatment in a case in which the pathology is similar; for I do not exaggerate when I say, that, if this disease had been further neglected, it must have terminated in complete paralysis of the lower extremities.

You must not confound this class of cases with another, and that of an wholly different origin, and in which the pathological condition is likewise different. I refer to a form of paraplegia, which comes on so insidiously that the sad victim of it is almost lost before he is aware that his health is seriously deranged. The disease is unaccompanied with pain, and as it generally occurs to those whose attention is so drawn from themselves by active mental exertion that they often pay no attention to the first symptoms of disease, as they regard them as trivial and unimportant. The cases we have just been analysing had both an inflammatory origin; the cases to which I now direct your attention, are, I believe, anæmic from the first; they are cases of permanent spinal exhaustion, and you will see, therefore, the importance of a correct diagnosis, as the treatment which, in the one case, would cure your patient, in the other, would aggravate his malady.

The disease commences with slight numbness of the lower extremities; this is followed by some loss of power; there is no pain in the spinal region at all; when you examine them, you may rap the spine, from the neck to the rump, and the patient does not shrink. You may apply the hot sponge, but this elicits no evidence of disease of the vertebral column.

The history will assist you if you strike the right key. You find no evidence of your patient having ever received any injury to the spine. He cannot account for it at all. If, however, you ask him, whether he has had much sexual intercourse, he will say, if he is honest, yes; but more probably he will not acknowledge to it immediately, but when you tax him directly with not having been satisfied with the caresses and charms of one syren, but that two claimed him for their own, and that his animal pride would not permit him to stint them, he will generally acknowledge to the truth of the soft impeachment. If, on the other hand, he says indignantly, that he never had connexion with a woman in his life, it is almost certain that he is the victim of that dread delusion—masturbation.

In the treatment of these cases you must avoid all antiphlogistic measures, for they only do harm. The first thing is to stop the exciting cause, and this is often, strange as it may seem, the most difficult part of your task.

I have known men of sound sense in all other matters, men whose judgment is of the greatest value to their clients, such slaves to the venereal appetite and their own ideas of pleasure, that they would submit to any plan of treatment that you like to propose, yet would not abstain from copulation, or give up their ordinary exercise and mental employment. I remember once saying to a patient, who consulted me for this malady, and whom I found perfectly deaf to all my advice on this point, "The best thing that could happen to you would be to be pitched out of your phaeton, and to have a bad compound fracture of the leg, which would confine you to your bed and your back for at least two months." Now, it did so happen, that this gentleman met with an accident, though unfortunately for him not so serious as to confine him for more than a month or six weeks; but even this rest did him so much good, and he rose so much better, that he forgot all his good resolutions, pursued the same course again, and is now perfectly, and I fear irrecoverably, paraplegic.

Unless these cases are treated very early, you can do little or nothing with them.

Rest, bodily, mentally, and erotically, is the most important point; and if your patient will not submit to rest, entire rest, you had much better take your leave without prescribing; for all the medicine in the Pharmacopœia will do no good without the rest.

As regards medicine, I have found, and it was first mentioned to me by my kind friend Sir Benjamin Brodie, small doses of the tinct. lyttæ, ten to fifteen drops, with from two to four grains of the sulphate of zinc, the best. A generous, but not a stimulating, diet, must be advised.

HISTOLOGICAL ANATOMY
AND
MICROSCOPICAL MANIPULATION.

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PART SECOND.

THE PHYSIOLOGICAL DEMONSTRATION OF THE TISSUES.

Lecture VII.

Summary.—52. Epithelium constantly found.—53. Varieties of.—54.—The Tesselated, and its Demonstration.—55. The Spheroidal.—56.—The Columnar.—57. Ciliated Epithelium.—58. Tabular View of the Positions and Functions of these Four Varieties.—59. The Basement or Primary Membrane.—60. Its Use.—61. Its Demonstration. 62. Pigment.—63. Where Found.—64. Mode of Demonstration.—65. Nails.—66. Method of making Sections of.—67. Demonstration.—68. Hairs.—69. Their Formation and their Parts.

EPITHELIUM.

52. Epithelium is one of the most constant microscopic elements met with in almost every investigation. This arises from the fact, that all the free surfaces of the tissues are covered with these scales or cells of epithelium. By abrasion, they are constantly being rubbed off, and, by growth, as constantly being renewed. From the close manner in which they are *set* upon surfaces, they serve as a protecting layer to the structures beneath. Upon mucous surfaces, they are incessantly undergoing removal and replacement, as seen in any examination of tears, pituita, saliva, expectoration, fæces, urine, semen, or catamenia; and the skin itself is constantly exfoliating, so to speak, *its* epithelium, as seen in examining the water after any common ablution: so also, serous membranes, as well as synovial, are covered with epithelium scales.

53. Epithelium is of several kinds, which, however, are mere modifications of shape, according to the special functions which the patch of cells has to perform. Thus they may be tesselated, spheroidal, or columnar; and the columnar variety may be ciliated.

54. The tesselated variety is the most extensive in the body; it may be in a single layer, or in a series of layers, like *strata*. It lines the whole of the interior of the heart, blood-vessels, and absorbents, as also of the larger serous membranes, as the pleuræ and peritoneum, with synovial membranes, the vagina, the prepuce, the urethra, partly; and it *forms* the epidermis. You may demonstrate this variety at any moment thus:—

Take a stage-glass, and use it as a tongue-scraper; upon the portion of *fur* and saliva thus collected place an over-glass, and examine the specimen with a moderate light, and a power of about 200 diameters. You will observe that there are individual cells isolated by rupture from their fellows; and, here and there, patches of cells, arranged like the tiles of a floor, hence called "tesselated." Observe, further, that each of these cells has a tolerably large nucleus, and more or less granular matter in its interior. Add now to the specimen, while looking at it, (15, Lecture IV.,) a drop of acetic acid; the edges of contact will be brought out in strongly-defined outline; they are doubtless united together by some cohering matter; this is not affected by acetic acid, for they are still joined. They may be teazed from one another by needles, and prefer separation from one another to individual rupture.

If, however, you add *liquor potassæ* (which must, of course, be done with another specimen) instead of acetic acid, the reverse action takes place; the nuclei and granular matter are brought prominently into view; the edges become less and less defined, till at length the whole patch breaks up into its individual component cells, which isolatedly float about the field.

Now, it is upon the intervening uniting substance that the *liquor potassæ* acts, and not, as might be thought from this experiment, upon the edges of the cells; as is proved by the fact, that if to these separated cells, floating in saliva and *liquor potassæ*, you add a little acetic acid, so as to neutralise the alkali, the edges of the cells again appear in bold outline, proving that they have not been destroyed.

55. Spheroidal Epithelium must be looked for in a different situation. It may be obtained most extensively from the bladder. As a general rule, it may be said to line all secreting glands with part of their ducts, lying near the entrance of the ducts upon the secreting surface. At the opposite end of the duct appears its more resistent neighbour, the tesselated epithelium just described. Not being subjected to such pressure and other metamorphic forces, the cells preserve their original rotundity, and hence receive the name "spheroidal."

These cells are not destined to perform the function of those just described; they are not protectors, but elaborators, of tissues. This is evident from the fact, that the elements of their particular secretion are sometimes found in their interior.

Scrape a portion of a fresh cut surface of *liver*, for instance, and the patch of cells examined will illustrate this peculiarity.

56. A columnar epithelium cell looks very much like an incisor tooth, and it is fixed, like the tooth, by its thinner end to the surface below; whatever the direction of the surface, it forms a right angle with it, as the pile upon velvet does to the basement silk. It is found nowhere except upon the mucous membranes, and more extensively here, upon the stomach, gall, bladder, and intestines. In lining ducts it may be said to be intermediate between the spheroidal cells on the one hand and the tesselated on the other.

57. Ciliated Epithelium is so called from cilia being attached to its free extremities. It is one of the most beautiful objects of microscopic demonstration, and its obvious function points most definitely to a minutia of design in the plan of creation almost inconceivable, without the *demonstratio ad fidelibus oculis*. If you kill a rabbit, and rapidly open a portion of the trachea, say two inches in length, and lay it in a plate upon which serum is floating, and then examine it with a botanical lens, you will observe that a distinct current is established almost immediately. If, now, any minute particle of insoluble matter be dropped upon the surface of the membrane, it is rapidly *thrown off* by the motion of the myriads of cilia beneath it, and the positions in which ciliated epithelium is found in the body, show that this is its physiological function.

If you wish to examine it isolatedly, you may scrape a portion of the roof of the mouth of a frog, or the gills of an oyster, and you will never fail to obtain your desire. Sometimes you will see a single cell (especially from the oyster) with many cilia all around it; these, acting synchronously, and generally in one direction, propel the cell along, just as a boat is propelled by the oars. This ciliated variety is found most extensively in the trachea, bronchi, and their minute ramifications, parts of the palate and nasal passages, the Eustachian tube, the Fallopian tube and its extremities, and in the ventricles of the brain; but the position of the varieties of epithelium will be best observed by reference to the following description:—

58. Tesselated Epithelium.—*Position.*—1. *In a single layer*, serous membranes, heart, blood-vessels, including arteries and veins, absorbents.

2. *In strata*, part of mouth, gullet, conjunctiva, vulva, vagina, cervix uteri, part of os uteri, part of urethra, the epidermis, and synovial membranes.

Function.—A protecting layer, to avoid the irritation from friction.

Spheroidal Epithelium.—*Position.*—Inner orifice of the urethra, bladder, ureters, pelves renis, the galactophorous and sudoriferous ducts, secreting cavities, and certain glands, as the liver.

Function.—Either elaborators of a lubricating fluid, or of the proper secretion of the gland in which they are found.

Columnar Epithelium.—*Position.*—Mucous membranes *alone*, as stomach and intestines, and the greater part of ducts opening upon a mucous or like surface, and the inside of the gall-bladder.

Function.—Probably simply protecting, not so powerfully so as the tesselated variety, and not subject to such rapid change.

Ciliated Epithelium.—*Position.*—Upon all the Schneiderian membrane, *lining bone*, (not that lining cartilage,) the top of the pharynx, the Eustachian tube and tympanum, the whole mucous membrane within half an inch of the glottis, the whole of the pulmonic membrane, the uterus and Fallopian tubes, and the ventricles of the brain, except, perhaps, the fifth.

Function.—A gentle motive power, ever acting to prevent the accumulation of foreign particles on the surfaces where it is found.

59. THE BASEMENT MEMBRANE

of Bowman, or primary membrane of Goodsir, is one and the same tissue,—the former name refers to its *position*, the latter to its *function*; the names may, therefore, be used interchangeably.

We have seen that epithelium scales, or cells, are found everywhere upon the *free surfaces* of the body. Now, this membrane is nothing more than the basement upon which these cells rest,—the septum between them and the blood-vessels. (5, Lecture IV.)

If you examine any epithelium cell, whencesoever obtained, or of whatever variety, you will find that it contains its nucleus and nucleolus, with certain granular matter, in its interior; hence it is evident, that the new or succeeding *crop of cells* upon the same spot is not produced by the ordinary method of cell development, (3. Lecture IV.) namely, from any nuclei or nucleoli of the so-called parent or pre-existing cell. Whence do these cells, then, originate?

60. From the primary membrane, thus:—From the generally-diffused blastema of the blood an organisation goes on towards the production of a homogeneous membrane or pellicle, which, in a short time, by some plastic force, has appearing upon it a fine granular matter extensively scattered, resembling, in most respects, the nucleoli of cells; these, probably, are metamorphic centres, where the vital forces commence the architecture of a cell, and it is upon this view that the structure is called the *primary membrane*.

61. You may demonstrate this membrane by acting upon the inside of any growing bivalve shell with dilute acid, and then gently tearing away part of the membrane.

1. Tesselated epithelium cells.
2. Spheroidal epithelium cells.
3. Columnar epithelium cells and ciliated columnar cells.
4. A portion of basement membrane, with germinal spots—centre—pigment—granular matter, and two pigment cells seen edgeways.

62. PIGMENT,

as the name denotes, is the principal colouring matter of the body. It is contained in cells, as we shall presently see, and seems to be developed in proportion to the amount of exposure to sun, heat, and light. It is the colouring matter of the spots called freckles, which predominate with us in summer-time, and is the cause of the various tints through the browns of the Spaniards, Indians, mulattoes, even to the swarthy darkness of the West African.

63. The largest collection of pigment-cells in the body of the European is found, where you will seldom have an opportunity of looking for it, namely, upon the choroid coat of the eye, or upon the back of the iris. A small portion, carefully scraped from this position, will show a most beautiful arrangement of hexagonal cells, containing in their interior a very dark granular pigment, the accumulation of which is almost black. The cells are held together by an intervening tissue, and thus present, on the whole, the honeycombed appearance. If they become isolated by rupture, or by *teazing* them with a needle, you will observe, that they are not completely filled with the colouring matter, but that a part of their anterior wall is, as it were, *blistered up* from this bed of colouring matter. If you rupture the cells, the pigmentary granules escape, and a fine molecular movement is distinguishable, different to any movement you have at present seen (from these demonstrations); it has no determinative direction; is tremulous and continues for some hours after removal from the cell; in short, in my own observations, as long as it is kept moistened by the aqueous or vitreous humour. The granules are among the smallest microscopic elements, measuring about the $\frac{1}{20000}$ of an inch in diameter.

64. You may always procure a bullock's or sheep's eye, fresh. The situations referred to in these (63), will afford you specimens, in all essential particulars the same as those of the human choroid and iris. Pigment-cells are not always hexagonal; sometimes they are star-shaped; in short, you have already seen some of this shape in the web of the frog's foot. (31, Lecture V.) The nuclei and nucleoli may be seen by attentive observation; but they are generally covered by the pigment granules.

NAILS.

65. Nails and hairs may be considered as appendages, partly of the true skin, but principally of the epidermis—the cuticular form of epithelium cells. They are easily demonstrated *in part*, that is, either a hair or a portion of nail may be at any moment placed upon the stage-glass and examined; but, if you wish to examine these structures thoroughly, you must be supplied with a finger for the nail, and a portion of scalp for the hair. Both of these should be rapidly desiccated. They will not be fit for a perfect demonstration under three weeks or a month from the time of separation from the body.

66. Supposing you possess these tissues under the conditions mentioned, with a very sharp knife cut down through the vertical direction of the finger, and from the cut surface (which will give a side view of the insertion of the nail into its matrix), make a clean shaving, proceeding from the distal end of the finger towards the first joint. This is essential, for, on cutting in the opposite direction, you will, in all probability, tear out the nail from its matrix, and spoil, not only the specimen you are trying to make, but the whole finger from which you might otherwise cut many dozens of specimens.

67. Having made a very thin section of the nail in its whole length, with its insertion into its matrix, you will perceive, upon looking at it with a power of about sixty diameters, that it commences in a groove in the "true skin," where, in fact, it is attached by cells which are hardly altered in character from ordinary epithelium cells; that these are continuous with the cuticular layer of the skin, and, proceeding from the base to the free edge of the nail, these become thicker, and it is easy to perceive the growth of the nail is dependent upon an advancing process from the cells originating in the matrix with the cuticle, giving place to others, by proceeding forwards. The most superficial parts of the nail are the most altered from the ordinary form of epithelium cells. You can, however, in part, restore the form of the cells of the nail by continued maceration in weak acetic acid. On teazing out the pulpy mass which is produced, you may see that the epithelium cells have been altered in shape only by the conditions of their growth. That part which lies upon the "quick" (the under surface of the nail) has its cells less horny, less agglutinated, and, necessarily, less altered in character, and is the first to yield to the action of maceration. Just as the cuticle strengthens the upper surface of the nail from the semilunar border behind the lunula, so the cuticle under its free edge strengthens its under surface. This is evident generally in even in specimens prepared as above, for the nail is *thickest* where it is entirely free. Hence, the practice of cutting or biting the nail below this attached part of the cuticle is the cause of the weakness of nails, which those indulging in these habits invariably complain of.

HAIRS.

68. Hairs are found all over the body, but in the most perfect form upon the scalp.

You will, probably, make many unsuccessful attempts to

demonstrate the bulb of the hair with its continuity; and your success, after all, may depend more upon accident than skill. Take care that your specimen of scalp is dry enough before you attempt to cut it, and then cut in the direction of the hairs, and from their free ends to their insertion, for the same reason as you observe a like direction with nails. Of course you may examine a single detached hair in its whole length, from the root to the tip, at any period.

To obtain a transverse section, the best way I am acquainted with is to make a *clean shave* in the ordinary way of performing your toilet; and, in an hour or so, according to the growth of your beard, to shave again with clean water without soap, using a very sharp razor. Collect the transverse and oblique sections thus made upon a piece of clean rag or paper, and these can be immediately transferred to the stage-glass.

69. The hair, like the nail, is the development of cells given off both from the true skin and from the cuticle. For the sake of description, a hair may be divided into three parts—a *cortical* part, a *fibrous* part, and a *medullary* part. Always of the former two, and sometimes of the three.

The cortical part consists of a series of imbricated scales, which lie upon the external surface of the hair. It is derived from the involuted epidermis, and has two or three layers; an inner series of these scales lies closely upon the bulb, and becomes lost upon the stem of the hair; the imbrication of the cells causes the hair to appear striated with distinct transverse lines.

The *fibrous* part consists of fibres, which are probably cells lengthened and tapering towards their extremities: these can be separated, after the hair has been well steeped in hydrochloric acid; they are indefinite in size; and, in short, their size seems to depend more upon the length of time they have been steeping, than upon any other cause. The medullary part is seldom seen, and is probably nothing more than an opaque granular matter contained in a kind of tube, which is neither essential to the hair nor constant. This tube, therefore, is seldom seen, though there is a popular notion that the hair contains a tubed cavity; and hence tubes with small bores or cavities are called capillary tubes.

The subject of the hair, especially in relation to *hair bulbs*, will be definitely considered when the minute anatomy of the SKIN is under demonstration.

ORIGINAL COMMUNICATIONS.

ON CERTAIN CASES IN WHICH THE ADMINISTRATION OF CHLOROFORM MAY PROVE INJURIOUS.

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THERE are, I believe, but few cases in which the surgeon is justified in withholding chloroform—the great antidote to suffering—from one about to undergo a painful operation at his hands; and there are operations during which its use is now almost as indispensable as the hands of an able assistant,—in those upon the eye, for instance, when the least violence to, or pressure upon, the organ may prove destructive,—and yet perfect steadiness is so necessary for success. I believe, in no class of operations is chloroform so beneficial to the surgeon, independent of the comfort it affords the patient, as in those upon the eye. The effects of chloroform are now so generally known, even among the lower class, that its administration is almost invariably one of the great conditions on on which a patient consents to submit to an operation, be it ever so necessary even for the preservation of his life; it therefore becomes of great importance for the surgeon to distinguish those cases where its inhalation may prove injurious. I believe, that the mode in which chloroform acts upon the system as an anæsthetic agent, is generally considered to be by impregnating the blood with carbon; and this is effected by substituting, for a time, its vapours, instead of the pure air naturally inhaled by the lungs; in other words, by causing to be circulated through the system blood deprived of its most nourishing ingredient, oxygen,—an ingredient being substituted which proves injurious, by interfering with the ordinary action of the nervous system, which, if continued for any lengthened period, must prove fatal. Here a question arises, as to whether this vitiated blood, circulating through the nervous system, exercises its influence upon the nerves themselves, so as to arrest their functions, or by circulating through that delicate centre of the nervous system, the brain, renders it insensible to the ordinary stimulus conveyed to it by the nerve fibres. I am rather disposed to believe, that its action is mainly upon the delicate substance of the brain itself, which cannot admit of a fluid circulating through its structure which does not contain a sufficient supply of oxygen, or which contains a superfluity of a deleterious ingredient. That it does not interfere with the action of the entire nervous system is evident from the fact, that the action of the heart still goes on, and also the process of respiration, and even the muscles of the limbs frequently are capable of motion; but all seem to be involuntary. Diseases of the nervous system, especially of the brain itself, have by many been considered the chief impediments to the administration of chloroform. These, no doubt, in some cases, are impediments; but the class in which it seems to me to be most injurious, are those in which the blood is either much vitiated in quality, or considerably diminished in quantity, let the cause of this diminution or vitiation be what it may. Many diseases of the lungs may cause a state of the blood which should prohibit the use of chloroform. For example: I can imagine a case of chronic bronchitis, where the lining membrane of the air-cells has become so thickened, that but little air can come in contact with the blood, in which case it must take a considerable time for the patient to recover the effects of, although he may have been easily influenced by, the anæsthetic agent. Acting upon this opinion, I refused to give chloroform in a case I operated upon a short time ago, the man having been the subject of a chronic bronchitis for several years, and having a bluish appearance, indicating a deficiency of oxygen in the blood. In such a case, when chloroform has been administered, one may naturally expect to meet a great difficulty in recovering the blood to even its former state of oxygenisation, however imperfect that may have been; and I think this may be readily accounted for in the following way. The free interchange of carbon and oxygen being in part interrupted by a thickened membrane lining the air-passages of the lungs, the blood, poisoned by the chloroform, finds a great difficulty in coming in contact with a sufficient quantity of air into which it may expel its superfluous carbon, and from which it may take up a sufficiency of oxygen to support life; and this blood passes to the heart in its still carbonised state, to be again sent through the body, there to accumulate still more carbon; and thus the process of carbonisation of the blood going on in a much greater degree than that of its oxygenisation, the balance is soon turned in favour of the poison, and the patient dies from a deficiency of oxygen in the blood. The patient may be easily placed under its influence. The blood, owing to the state of the lungs, is unable to free itself altogether of its carbon; then, at the time of administration of the chloroform, it being already considerably vitiated, but little is required to turn the balance. The operation may go on as expected, the patient feeling no pain; but great difficulty may be experienced in restoring him to his former state of sensibility, and even death may ensue in some minutes or hours, or perhaps days, according to the difficulty of oxygenisation in proportion to carbonisation. There are several other affections of the lungs which may produce a state of the blood such as ought to prohibit the use of chloroform. Emphysema, for instance, where the structure of the lung itself is so affected as to prevent a sufficient quantity of the blood coming in contact with the air, the pulmonary circulation being so impeded that in many cases a large portion of the blood remains in the right side of the heart, so as considerably to enlarge these cavities; and thus the same evil results, but from a different source. I do not mean to say, that in every case of chronic bronchitis, or in every case of emphysema of the lung, the administration of chloroform is impracticable; but I do mean to say, that in cases where there is an affection of the lungs which considerably impedes the process of oxygenisation of the blood, whether it be by a mechanical obstruction to the air coming in contact with the blood, or by a deficiency of blood

being permitted by disease to enter the vessels of the lungs, and thus come in contact with the pure air, the surgeon runs considerable risk in administering chloroform. Diseases of the heart also, by retarding the circulation, render the re-oxygenisation of the blood difficult, and thus, to people affected in this organ, there is great danger in the use of an anæsthetic agent.

Where there is but a small quantity of blood in the system, I believe it to be very injudicious to administer chloroform. The surgeon is sometimes called on to perform an operation after considerable hæmorrhage has taken place. In this case there remains but a small portion of blood to keep up life, which must pass more frequently through the system than if there was the usual quantity; it therefore becomes more strongly impregnated with carbon and other deleterious substances, and thus, when the chloroform is added, it becomes doubly poisoned; and, this small quantity of highly poisoned blood being diffused through the entire body, but a very small quantity can at one time occupy the lungs, so as to be purified by the air, which becomes very soon carbonised again by the parts eager for their accustomed nourishment; and many days, or even weeks, may be required to make up its deficiency in quantity, and thus restore its quality. A clear illustration of this happened to myself about a year ago. George Bassnett was admitted a patient of the Ardwick and Ancoats Dispensary on the 31st of December, 1851. Some months previously, while assisting in raising a large boiler to place it upon a wagon, it slipped, and, falling upon his right thigh, fractured it about the junction of the middle with the lower third. The fracture was oblique from above downwards and outwards. At the same time the upper fragment was split, so as to detach from it a piece about six inches in length, and nearly half the diameter of the bone in thickness. It was not, then, a compound fracture. He told me of several under whose care he had been from the time he received the injury until he was admitted to the Ardwick and Ancoats Dispensary, most of whom were but quack bone-setters. When I saw him on the 31st December, 1851, the right leg was three inches and a half shorter than the left, the knee-joint being drawn upwards and inwards by the action of the muscles. There was a large ulcerated opening on the external aspect of the thigh, through which projected the extremities of the upper fragments, the splinter lying across the thigh; and among the adductor muscles was a large abscess, which could be emptied through the ulcerated opening. I proposed amputation of the thigh, but, in consultation with my friend Mr. Dumville, it was decided to leave it to Nature, as, being of such long standing, some fibrous union must have taken place, although the bones were in this distorted condition; and it was hoped, that, if the patient should only continue in the same state of health as he then appeared to be, the exposed ends of the bone might be thrown off, and the man recover with a short leg. The amputation was therefore put off; and my intention was, to saw off the exposed ends of the bone, and make a counter opening on the inside, to give free exit to the pus, and leave the rest to Nature. The patient not being willing to undergo this operation, caused further delay; but, on the night of the 6th of January, the femoral artery suddenly gave way, and, in a short time, the bed was one sea of blood. Mr. Bennett, who was then the resident surgeon to the Institution, was sent for; and, having applied the tourniquet, arrested the hæmorrhage. Early in the morning of the 7th, I was sent for; and, having called a full consultation of my colleagues, I amputated the thigh about two inches above the fracture. Previous to the amputation, the patient was perfectly sensible; but it was difficult to make him or his friends understand the necessity for the operation. However, after some time, they did consent, on the condition that he should have the chloroform, which was administered, and the operation performed with the loss of very little blood.

The patient continued for several hours after the operation in a state of insensibility; after which time, under the use of stimulants, he rallied a little, and continued in this state of more than half insensibility until he died on the 19th, twelve days after the operation, during which time he was perfectly unconscious that his leg had been taken off, and until very few days previous to his death, he felt little or no pain, even while the stump was being dressed. The pain he then experienced he attributed to the moving of the leg. Now, I believe this man never perfectly recovered the chloroform, although he lived so long after its administration; the powers of life being too low to throw off the poison, or to enable him to take in sufficient nourishment to make up for so great a loss of blood; and I also believe, that, had he had only the one obstacle to encounter, namely, the loss of blood, there would have been a much greater probability of his recovery, as he was a man of strong constitution and great vital powers. The same observations are applicable to those cases where the vital powers are diminished by long-continued disease, or where old age has made its havoc on the system.

As far as I can discover, in all the cases which have proved fatal from the administration of chloroform, either the heart, or lungs, or both, were in an unhealthy state, or the natural processes through which the blood goes had been in some way interfered with by disease.

In Mr. Cæsar Hawkins's case, which occurred in 1851, the *post-mortem* examination showed fatty degeneration of the heart. In the fatal case which occurred at Melbourne, in Australia, the heart was hypertrophied and dilated, and its muscular structure flabby. In the case of the patient who died in St. Bartholomew's Hospital, the account of the *post-mortem* examination states, that the mucous membrane lining the bronchial tubes was in an unhealthy state. In the fatal case at the Manchester Infirmary, I am informed by Mr. Wilson, that the lungs were emphysematous, and the right side of the heart much dilated and hypertrophied, its weight being 18½ oz.

I cannot help thinking, that some of the cases of death from chloroform have been more the effect of an indiscreet mode of administering the anæsthetic agent than from the real effects of chloroform upon the system, for I have frequently seen it administered in the most careless manner. I have seen a patient held down, and an inhaler put close to his mouth, with the sponge filled with chloroform, and held there, notwithstanding the most violent struggles, until at last he is choked into a state of anæsthesia, the pain of this process being much more severe than the operation itself. And I have met with people to whom it has been administered, and who strenuously declare, they will never undergo such punishment again; they would much rather suffer the most severe operation than the sensation of smothering they experienced while the chloroform was being administered to them. But I believe this to be the fault of the administrators, and not any peculiarity in the patient. This choking system is not the way to administer chloroform; it ought to be done in a quiet and gradual manner. The mode which I have found most successful—(what I call perfect success being, not only placing the patient in a state of anæsthesia, but doing so without his feeling any inconvenience whatever from it)—is the following:—I use a common huckabuck towel, which is folded in a strip about seven inches wide; one end is then turned down, and the other rolled round so as to make a conical bag; a piece of lint is then taken and applied to the mouth of the chloroform-bottle, and just so much put on it as it will soak when the bottle is turned up once or twice upon it, which is then inserted into the conical towel, and put to the mouth of the patient. This small quantity of chloroform can generally be borne without the least inconvenience, but sometimes it will be found necessary to remove it for a second or so, which should be done if there is the least choking sensation, and re-applied, either close to the mouth again, or at a very little distance from it, so as to dilute the vapour still more; as the patient gets accustomed to it, a little more chloroform may be added, and again, perhaps, a little more, until he is fully under its influence; thus, you give a small dose at first, which the patient is able to breathe with ease, and it is increased as the lungs become accustomed to the at first irritating vapour, instead of giving a large quantity, which emits so dense a vapour, that the patient is totally unable to inhale it. I prefer the towel to the pocket-handkerchief, because, being more readily made into a bag, the chloroform can be placed at a greater distance from the mouth, which enables the patient to breathe it with great facility without its being so much diluted with air. This objection holds good with the common chloroform-inhaler, to which there is, also, another, namely, in the arrangement of its valves, as, when it is placed close to the mouth, the sponge being full, nothing can be inhaled but the pure vapour of the chloroform. It may, however, be used by arranging the quantity of chloroform poured upon the sponge; but, as far as my experience goes, (having used many kinds of inhalers,)

I believe the best, most convenient, and most safe, is the towel, as I have before described. The best chloroform I have ever used is the Edinburgh chloroform; it can be made in Scotland so much cheaper and better than in England, owing to the spirit laws in that country. One thing I must mention before concluding, that chloroform is not a thing to be given by any person who happens to be near; but it ought to be placed in the hands of those who are in the habit of administering it, and who know and can watch its effects; especially in hospitals, there should be one person appointed to administer the chloroform,—one who is likely to remain attached to the hospital for several years, and whose business it is, during the operation, to mind the chloroform, and nothing else; for, in most cases, when left in the hands of inexperienced people, they are prone to watch the progress of the operation, and not to attend at all to the effects of the chloroform,—a habit which is fraught with the greatest danger. Not wishing to occupy too much of your space, I have endeavoured to condense this important subject as much as possible. I am aware, that there are many cases, where chloroform may prove injurious, which I have not mentioned; but, of course, the experienced surgeon can easily distinguish the cases where, the blood being considerably vitiated, or diminished in quantity, the administration of chloroform would be highly injurious and objectionable.

16, Ardwick-green, Manchester.

THE LONDON PRACTICE OF MEDICINE AND SURGERY.

KING'S COLLEGE HOSPITAL.

DOUBLE CONGENITAL HERNIA.—STRANGULATION ON THE RIGHT SIDE.—OPERATION.—SUDDEN DEATH.—AUTOPSY.—LARGE HYDATID CYST IN THE LIVER.

[Under the care of Mr. PARTRIDGE.]

George Cole, aged 47, an unusually stout man, was brought into the hospital on the morning of the 16th of February, 1853. He was the subject of congenital hernia on both sides, which had protruded at frequent intervals during most of his life. He had commonly been able, without much difficulty, to reduce them for himself, and for many years past he had worn a double truss. About six hours before his application at the hospital, that on the right side had come down spontaneously, and the prolonged attempts at the taxis, both by himself and a surgeon whom he had consulted, had failed to return it. On admission no urgent symptoms were present. The bowels were reported to have been moved immediately before the protrusion took place; there was some pain in the abdomen, and a feeling of sickness, but no vomiting had occurred. It was found, on examination, that both sides of the scrotum were distended by very large protrusions of bowel; that on the left side, Mr. Lawson, the house surgeon, soon succeeded in reducing, but that on the right resisted all attempts which it was deemed wise to make. A warm bath, the application to the tumour of a bladder of ice, and the exhibition of a large gruel enema, were all tried in the course of the morning, but without any success. The latter measure only produced the evacuation of some hard scybalæ. In the evening, at six o'clock, Mr. Partridge again visited him, and finding the symptoms rather increased in severity, he determined at once to operate. The tumour was undiminished in size, tense and immovable; the belly was inclining to be tympanitic, and slight vomiting had occurred. The testicle was so completely buried in the mass that it could not be felt, in fact, it was thought questionable whether it was in the scrotum at all. The surgeon who had attended him on previous occasions, however, expressed himself as certain that both testes were descended.

The exhibition of chloroform caused severe retching. Insensibility having been produced, Mr. Partridge made a free incision in the long axis of the tumour, and having divided a much thickened cremaster muscle, and the other coverings of the hernia, laid open its sac. A large coil of much congested intestine was seen, (probably cœcum,) of a dull, unpolished appearance, as if from old adhesions of lymph to its surface. Mr. Partridge next divided the the stricture, using his finger as a guide; but, although this had been done freely, it was still found impracticable to return the bowel. The sac, which consisted of the tunica vaginalis, was accordingly laid open to a much greater extent, and the stricture so largely divided that three fingers could be passed up by the side of the gut. The impediment to reduction seemed to have been occasioned by the thickened and distended state of the bowel; and, its contents having been emptied by pressure, it was now slowly returned, several gushes of serum escaping from the abdominal cavity during the process. Towards the end of the operation, the patient was again attacked with violent retching, under which the bowel was forced down on the left side to such an extent, that the scrotum seemed distended almost to bursting. The part was supported by pressure by the hands of an assistant, until the vomiting ceased, when it was readily reduced. The wound having been closed by sutures, both groins were supported by carefully-adjusted compresses and bandage, and the patient sent to bed. He soon recovered from the effects of the chloroform; and, a dose of laudanum (m xl.) having been administered, he passed several quiet hours. About midnight, however, he suddenly began to sink, and died in a very short time, before the House Surgeon, who had been called, could visit him. It seemed difficult to understand the cause of this sudden declension, as but a short time previously he had seemed in a favourable state, with a full soft pulse and moist tongue. No great quantity of blood had been lost, nor were there present any indications of severe peritonitis. The reason was not made much more evident by the *post-mortem* examination. Very slight traces of recent peritoneal inflammation were detected, a small quantity of serum was present, and the intestines in many parts were pink with congestion; but no lymph or other effusion had taken place. The portion of bowel which had formed the protrusion was easily recognised by its thickened tissues; it had evidently been often down before. The convolutions of the lower half of the small intestine were so firmly agglutinated together by bands of old-standing false membrane, that it was impossible to separate them from each other. The transmission of their contents must, from appearances, have been accomplished with great difficulty. The upper half of the intestine was distended with fluid. The liver was very large; in its right lobe there was an hydatid cyst the size of an infant's head, which was full of clear fluid, in which floated numerous acephalocysts of various dimensions. Its walls were very thick, and composed of condensed fibrinous material, of almost cartilaginous solidity.

There can be little doubt but that the amount of old-standing mischief found after death must have exercised a considerable influence in inducing the fatal termination. The extreme obesity of the patient, the adherent condition of the intestines, the enlargement of the liver, and the presence of the tumour in its substance, must all have contributed their quota towards making him an unpromising subject for an operation; and some of those lesions were of a character likely to impede the free descent of the diaphragm, and embarrass the action of the lungs and heart.

The above details of this case we have extracted from the notes taken by Mr. Cogan, the dresser of the patient.

UNIVERSITY COLLEGE HOSPITAL.

STRANGULATED FEMORAL HERNIA.—OPERATION.—REMOVAL OF A LARGE MASS OF OMENTUM.—PERITONITIS.—SLOUGHING OF THE SAC.—RECOVERY.

[Under the care of Mr. ERICHSEN.]

Mary Franklin, aged 67, for years the subject of irreducible hernia, was admitted Jan. 11, 1853, at 9.30 a.m., labouring under the symptoms of strangulated bowel. There was a large, softish-feeling tumour in the right femoral region. As attempts had been made, before admission, to effect reduction by the taxis, it was not deemed prudent to continue them much further. Mr. Erichsen accordingly had the patient put under the full influence of chloroform, and, having again failed in his efforts to return the gut while she was in that condition, he at once resorted to the operation. The ordinary incisions having been made, and the sac of the hernia laid open, a large lump of omentum was brought into view; it was much congested, and adhered firmly to the sac at its inner and lower parts. After a little search, a small knuckle of intestine, of a deep chocolate colour, was found in the upper part of the sac. The stricture was extremely tight, and it was with some difficulty that Mr. Erichsen at length succeeded in introducing the tip of his finger, in order to serve as a director for the bistoury. A small incision upwards and inwards having been made, the protruded intestine was easily replaced. And now came

the question as to what should be done with the mass of omentum. Conclusively opposed to the idea of returning it were the circumstances, that it was very large, much congested, adherent to the sac, and had probably been down for a long time. If left in the wound, sloughing would probably ensue, and induce great constitutional irritation. Mr. Erichsen accordingly determined to remove it, and to adopt, according to his custom in such cases, the plan of ligaturing the whole constricted neck of the tumour, rather than each vessel singly. For this preference he alleged as a reason, that it was very desirable to prevent the portion left behind from passing up into the abdomen, which might be much more easily accomplished by one large ligature than several small ones. A piece of whipcord was accordingly passed round it, as close as possible to the femoral ring, and the lower portion, having been cut off, was gently separated from the sac, to which it adhered, and removed. The end of the cord was turned up on to the abdomen, and there fixed by means of a strip of plaster, so as to retain the divided omentum in place. The sac, which was very large, was next plugged with sponge, and, the wound having been covered with wet lint, the patient was sent back to bed. Capt. vin. opii ♏xxv. statim.

The portion of omentum cut away was afterwards found to be six ounces in weight.

At two p.m. there were symptoms of commencing peritonitis; the belly was tympanitic, and slightly tender; pulse 90, soft; tongue moist, and thinly furred; knees a little drawn up. Hirud. xij. abdom.

℞ Hydr. chlorid. gr. ij., pulv. opii gr. ss., 4tis horis sumend.

January 12, one a.m.—Hirud xxiv. The pain in the abdomen continuing with but little improvement, the same number of leeches were again applied at noon, and at midnight a blister was ordered to the abdomen. Tinct. opii ♏ xxx. horâ somni sumend.

13th.—Pulse 120, sharp and hard; abdomen tympanitic and tender; she is very restless, and appears to be in great pain. Hirud. xxiv. To continue warm fomentations to the abdomen.

16th.—A profuse diarrhœa commenced yesterday, in other respects she is a little improved.

℞ Morph. acet. gr. j., sacchari gr. x., 6tis horis sumenda, cum sp. vin. gallic. ʒj., et conf. aromat. gr. x. A starch enema to be administered.

17th.—There is still tenderness over the whole belly, which is also tympanitic; she lies, however, on her left side, and the knees are not drawn up; pulse very weak; bowels not open; tongue dry and furred.

18th.—The ligature from the omentum came away to-day; the interior of the sac, which has throughout secreted a very unhealthy discharge, is in a sloughy condition, but the destruction does not involve any part of the edges of the skin; the abdomen is now flaccid and free from tenderness; pulse 96, and of much better power. Mr. Erichsen ordered a lotion of the chlorinate of soda to be freely applied to the interior of the sac, and over the whole a bread poultice. The powders were suspended yesterday.

19th.—Much better; the sloughs are separating, and the wound is granulating healthily. Pulse 112, soft, and of fair power. From this date, progressive improvement took place, and she was discharged quite well on February 28th.

We are indebted for the particulars of the above case, as also for those of the following one, to the notes taken by Mr. Griffith, the dresser of the patients.

STRANGULATED CONGENITAL HERNIA.—OPERATION.—REMOVAL OF A LARGE MASS OF OMENTUM ADHERENT TO THE TESTIS.—RECOVERY.

[Under the care of Mr. ERICHSEN.]

John Saul, aged 35, was admitted at nine in the evening of January 7th. He stated, that from a child he had been subject to a fulness in the left groin, and that protrusion of a large tumour had repeatedly occurred during the last few years. On these occasions he had always suffered severe vomiting; but, with one exception, in which medical aid was necessary, he had never failed to accomplish reduction for himself. The manner in which he was accustomed to manage this was by placing himself on his back, with the heels elevated at a considerable height above the body. Ever since the occasion on which he had called in a surgeon, about a year, he had worn a truss; but it was inefficient, and did not prevent the extrusion of the bowel. In the night of the 5th, about twelve o'clock, the bowels having acted naturally an hour or two previously, the hernia again came down, without any known cause. From that time to the present he had suffered almost constantly from "most horrible vomiting;" and no action of the bowels had occurred.

On examination, a long ovoid tumour, the size of two fists, and terminating by a thick neck at the external abdominal ring, was found in the left side of the scrotum. It was soft and flaccid; but, from previous manipulations, the skin showed a blush of redness. The testicle could be felt at its inner and posterior aspect about the middle. Chloroform was at once administered, and, the taxis having been again ineffectually tried, Mr. Erichsen proceeded with the operation. Having exposed the sac, and divided the stricture, he attempted to effect reduction with opening the former, but, in doing so, it gave way under his hands at the lower part, where it was excessively thin, and a large mass of thickened omentum protruded. This omentum was found to be closely adherent to the testicle. Just within the neck of the sac, and almost concealed by the rest of the tumour, was a knuckle of deeply-congested intestine, of a chocolate-brown colour, but glistening, and otherwise healthy. The stricture was now further divided in the usual direction, and the coil of bowel carefully replaced and retained in position by pressure with the hand over the internal ring. Mr. Erichsen next applied a ligature of whipcord to the neck of the omental protrusion; and, having divided its adhesions to the testis, it was then cut away and removed. This omentum was not only indurated and thickened, but a good deal congested. Mr. Erichsen alleged as his reason for removing it, that if left, it would, from its size, and from the probability that some of it had been a very long time there, almost certainly slough. The wound having been dressed as in the preceding case, the patient was returned to bed, and had administered two grains of opium in the form of pill.

On the morning of the 8th, there was much tenderness over the whole abdomen; and the exposed testicle was acutely inflamed.

Hirud. xviii. ℞ Opii gr. ss., calomel. gr. ii. 4tis horis sumend. Fomentations to the whole abdomen.

On the 9th, he was somewhat better; and by the aid of a simple enema the bowels were freely opened.

10th.—He was so much improved, that the pills were discontinued.

11th.—Abdomen distended, but not very tender; the testicle is still swollen and painful; appetite good; bowels open; tongue moist.

18th.—The sac has throughout been in a very unhealthy condition, and the whole scrotum is now much swollen and discoloured. As the pus, which was of a dirty grumous character, appeared to lodge in the lower parts, Mr. Gamgee, the house-surgeon, made an extension of the wound lower down, in order to permit of its more free escape.

20th.—The patient, as regards his general health, is doing well; the scrotum is to be injected with red wash. Mr. Erichsen made a counter opening in its lower portion, in order yet further to obviate the tendency of the pus to bag.

21st.—During the night, there was a sharp hæmorrhage from the edges of the cut made yesterday, which, however, ceased spontaneously.

Feb. 8.—Steady improvement; all the slough has separated, and the wound is granulating healthily.

About a fortnight later, the man was discharged quite well.

Accidental laceration of the hernial sac, in cases in which it was intended to complete the operation without opening that membrane, has occurred twice within our observation during the last few months. Once in the case just related, and again in a patient lately under the care of Mr. Birkett, in Guy's Hospital. In the latter case, the patient, Maria Logan, aged 38, was undergoing an operation for femoral hernia. The sac was extremely thin; and, as Mr. Birkett was passing his finger up to the seat of stricture, it gave way, and the bowel protruded. The patient recovered well. Mr. Luke informs us, that in his hands the same has occurred once in a case in which the neck of an old and thickened sac had been scarified until it was extremely thin. The accident is, of course, of no further consequence, than that it simply destroys the hoped-for advantages derived from not opening the peritoneal cavity.

ST. BARTHOLOMEW'S HOSPITAL.

OPERATION FOR STRANGULATED FEMORAL HERNIA.—REDUCTION.—SUBSEQUENT GANGRENE OF THE BOWEL.—RECOVERY.

[Under the care of Mr. STANLEY.]

Caroline Lane, aged 41, subject to hernia for three years, during which time she had worn a truss, was admitted on December 29, 1853. The bowel had then been strangulated eighteen hours, and she had suffered constant vomiting through the whole time. On all previous occasions she had been able to return the protrusion, and in the hope of again doing so, severe and protracted efforts had now been made, both by herself and a surgeon whom she had con-

sulted. She was, on admission, in a condition of extreme prostration, with an anxious countenance and scarcely perceptible pulse. The tumour was very tense, and about the size of a goose's egg. Mr. Stanley did not deem it warrantable to again attempt the taxis, but without delay proceeded to the operation. On account of the feebleness of the pulse, chloroform was not administered. The sac of the hernia having been exposed by an incision along its inner side, and the stricture divided, ineffectual attempts were made to reduce the tumour without opening the sac, which was accordingly laid open. Together with a large mass of omentum a strangulated knuckle of intestine, about the size of a walnut and quite black, was now brought into view. Its surface was tense, smooth, and polished, and, as it did not appear to be gangrenous, Mr. Stanley returned it into the abdomen, leaving the omentum in the sac to which it was adherent. The ordinary dressings having been applied, the patient was sent back to bed.

Dec. 30.—She has passed a tolerably quiet night, undisturbed by vomiting, but this morning the abdomen is tender and tympanitic, and her aspect is sunken and very anxious. Pulse extremely feeble. Hirud. x. abdomini.

℞ Pil. sap. co. c. opio. gr. v. 4tis horis.

Jan. 2.—The pills have been regularly continued up to the present time, (eighteen grains of opium in three days,) and with apparently the best effect; the symptoms of peritoneal inflammation have gradually yielded, and her strength has much improved. To-day the bowels have acted twice quite spontaneously, for the first time since the operation.

4th.—The wound has not yet commenced to close; to-day there is a discharge from it of *fluid intestinal contents*. Her general condition is improving; she takes a nourishing diet, with beef tea and wine.

21.—The discharge of fæces from the wound which continued profuse for two weeks gradually declined, and has now quite ceased to flow, and the wound looks healthy. She has during this time had several evacuations per anum, but by far the greater part of the intestinal contents have passed through the opening in the groin.

Feb. 9.—The patient is going on extremely well, and the wound is nearly closed. The bowels act regularly by the natural passage.

On March 16 the patient left the hospital quite well in every respect, the wound being healed, and a truss adjusted.

Inasmuch as the space of six days elapsed before the diseased intestine gave way, and as in the interval the bowels had acted naturally, it may fairly be inferred, that, at the time of the operation, the vitality of the strangulated portion was not hopelessly reduced. We have noted that it was not collapsed, and that it retained its polished, smooth appearance. Very possibly, had the restorative vigour of the patient been greater, the ulterior processes, which resulted in sloughing, might have been arrested, and the gut enabled to resume its functions, and taking this view the prolonged subsequent history would seem quite to justify the course pursued by Mr. Stanley. It is no light matter to needlessly puncture intestine because it is black, or even to leave it exposed in the wound,—a proceeding which will certainly increase the danger of gangrene. Looking, then, at all the various risks, and estimating fairly the various means of forming a correct prognosis, it is a thing quite to be expected, that, in some cases, the probabilities may be so nicely balanced, that the judicious surgeon may return portions of bowel, concerning which he does not feel absolutely certain that they are not irrecoverably damaged. Just such a case, we believe, the preceding to have been. To return gangrenous intestine is, of course, a proceeding replete with danger, on account of the probability of the escape of fæces into the peritoneal sac. If, however, time be allowed for the exertions of the *vis conservatrix naturæ* before the diseased parts separate, this accident may, as the result of the above case proves, be obviated by the preparatory gluing together of the intestine and the abdominal wall at the part nearest to the external opening, so as to provide means of free escape for the irritating fæcal matters. In addition to the above point of interest—the successful treatment of traumatic peritonitis by opium, and the spontaneous closure of an artificial anus,—this case also illustrates the practice of leaving adherent omentum in the sac of the hernia. The mass left was of very considerable size, and, at the time of operation, much congested, though not in a condition at all approaching to gangrene. No sloughing occurred subsequently, but the whole sac suppurated very freely, a considerable portion of the discharge being probably derived from the exposed serous membrane. Under this process, the omental mass diminished much in size, and ultimately became consolidated with the surrounding parts.

We are indebted to the notes taken by Mr. May, one of Mr. Stanley's dressers, for the details of this, and of the following case.

STRANGULATED UMBILICAL HERNIA.—OPERATION.—RECOVERY.

[Under the care of Mr. STANLEY.]

We remarked last week on the comparative disuse into which operative procedures in cases of fractured skull have fallen, and commented on the fact as an evidence of surgical progress. The same cheering deduction may be taken from the reverse movement in the case of operations for strangulated hernia. The dangers incident to delay and to the taxis are now well recognised, and, by increased anatomical knowledge, by improved methods of operating, and by the use of anæsthetics, the risk necessarily attendant on division of the stricture has been reduced to a very small amount. The hospital surgeon of the present day regards the alternative of an operation for hernia with but little fear, and he is most anxious not to lose time in the trial of various questionable expedients; and yet more, to avoid, in his attempts at the taxis, anything like protracted or rough manipulation. The remark of a celebrated French surgeon, "Have hope of a hernia in which the taxis has not been tried," is indeed one the shrewdness of which is attested by all experience; and no inconsiderable number of the cases which terminate fatally, after operation, in hospitals, may be fairly attributed to the severe handling to which the protrusions have been subjected prior to admission. The reader will observe, that neither in the preceding nor the following case did Mr. Stanley deem himself justified in making any attempts whatever at reduction by the taxis. They both also illustrate another important feature in modern practice, viz., the after-treatment by opium instead of purgatives.

Sarah Foskett, aged 65, in good health, a strong, stout woman, the mother of sixteen children. For twenty years she had worn a truss, on account of an umbilical rupture, which frequently protruded, but which was usually reduced with ease, a small lump, however, always remaining. At ten p.m., on January 13, 1853, she was admitted into the hospital, with the account, that she had laboured under the symptoms of strangulation for thirty-four hours, during which there had been violent and almost constant vomiting. Her countenance was anxious and dusky, skin hot, pulse sharp, and tongue furred. The tumour at the umbilicus was nearly the size of a fist, very tender, and on one side much discoloured, as if from bruising in the attempts at the taxis, which it appeared had been freely made. Mr. Stanley directed her immediate removal to the operating theatre, and, chloroform having been administered, he commenced the operation by making an oblique incision, an inch and a-half long, by the side of the neck of the tumour. Having dissected down to what appeared to be the margin of the umbilical opening, a small notch was made in it by means of a probe-pointed bistoury. This, however, failed to liberate the protruded bowel, and there now seemed no alternative but to adopt the more ordinary method of laying open the sac. A longitudinal incision about the same length as the last was made over the centre of the tumour, and the sac having been exposed was opened, and the stricture divided from within, in a direction upwards. The contained coil of intestine, which was much congested, was now returned without difficulty, and a small portion of omentum which adhered to the walls of the sac was allowed to remain *in situ*. A compress of lint was placed over the part, and the patient sent back to bed. Twenty minims of laudanum being ordered to be immediately administered.

14th.—There has been no recurrence of vomiting; she is in a very favourable condition.

℞ Pil. saponis co. c. opio gr. v. omni nocte.

15th.—Has slept well; pulse 80; a little sharp. The bowels have acted twice a-day, although no aperient medicine of any kind whatever has been administered.

16th.—Doing well in every respect. Omit the pill.

From the last date nothing particular occurred during the convalescence, which was throughout satisfactory. She was discharged on Feb. 28, the wound being quite healed, and truss comfortably borne.

In this case, the portion of omentum left in the sac was small, and so closely adherent to the neck and walls of the sac, that it did not occasion any peculiar symptoms, but remained without much diminution in size, acting as a plug in closing the aperture. Strangulated umbilical herniæ are exposed to two sources of danger from which the other forms are comparatively exempt, and we suspect the fatality which attends them is much greater than that of the others. They are frequently of enormous size, and from being situated so high in the abdomen, often contain small intestine or other structures situate much nearer the stomach and vital organs, than is the case with those which affect the groins. Next to the tightness of the strangulation itself, the size of the strangulated portion, and its proximity to these important parts, exercise, we suppose, the greatest influence in determining

the amount of constitutional sympathy and depression of vital power which shall be present. A case of umbilical hernia operated on for the second time in the London Hospital, some nine months ago, recovered favourably. In another, more recently, at the same hospital, in which the protrusion was of very large size, death followed in twenty-four hours after the operation. Both occurred in very stout women, and, in both, it was necessary to open the sac.

THE LONDON HOSPITAL.

STRANGULATED INGUINAL HERNIA.—REDUCTION BY OPERATION.—DEATH FROM INTERNAL STRANGULATION.

[Under the care of Mr. ADAMS.]

A. M., a greengrocer, aged 20, came under the care of Mr. Adams with severe symptoms of strangulated hernia. A tumour occupied the upper third of the scrotum, and from this extended into the inguinal canal, so as to distend it somewhat. Slight impulse existed on coughing. The patient stated, that the gut had come down thirty-two hours before his admission, immediately after having lifted a sack of potatoes, his truss being off at the time. Immediately after its descent, it was about the size of a bantam's egg, and gradually increased; pain came on in about three hours afterwards, across the stomach and below the navel, followed by sickness. The bowels had been rather relaxed than otherwise prior to the descent of the intestine. The taxis had been used three times before his admission, and gave him great pain. The patient had had rupture for thirteen years. He commenced to wear a truss two years ago, and continued its use for fourteen months, since which time he had laid it aside, fancying himself cured. In the steps of the operation, Mr. Adams first divided the outer ring, without being able to reduce the tumour; the investing layers were next incised; and, on the sac being opened, about two ounces of bloody fluid escaped, followed by collapse of the sac, which contained no intestine. The finger was next introduced into the inguinal canal; and, having been passed to at least half an inch beyond the usual level of the internal ring, the neck of the sac was reached. From the direction of the finger, the apex of which was directed somewhat downwards and inwards, the opening of the sac appeared placed over the brim of the pelvis. A knuckle of intestine was found to be strongly girt by the abdominal orifice of the sac. A bistoury was passed along the finger; the neck of the sac was cut, and the gut went back, apparently without any difficulty. The patient died suddenly during the application of leeches to the abdomen, twenty-two hours after the operation, the symptoms of strangulation having increased in intensity, and peritonitis having supervened.

The examination of the body was made twenty-eight hours after death. The abdominal muscles in the region of the right inguinal canal were carefully reflected, and a good deal of extravasated blood was found in the cellular tissue between them. The finger was passed up into the neck of the sac, and it was found triangular in outline, owing to the upper part having been cut. It was placed an inch and a-half from the usual level of the inner ring, just over the brim of the pelvis. Running from the lower and posterior part of its circumference, was a delicate, tense band, which was connected with a ring in the mesentery, which ring tightly girt three folds and a-half of small intestine, which were of a deep dusky purple, having patches of deeper coloured extravasation between their coats. These coils occupied the lower part of the abdominal cavity, and were matted together by plastic effusion, as also was the remainder of the intestine, which was, however, in a much less advanced state of inflammation. A large quantity of bloody serum occupied the cavity of the abdomen. The part of the intestine which had been girt by the neck of the sac was evidently a portion of that which was surrounded by the ring of the mesentery.

REDUCTION BY TAXIS OF A SCROTAL HERNIA.—PERSISTENCE OF SYMPTOMS.—OPERATION.—DEATH.—AUTOPSY.—INTERNAL STRANGULATION.

[Under the care of Mr. CURLING.]

C. R., a spare man, aged 48, was admitted, July the 5th, labouring under the symptoms of strangulated bowel. He stated, that he had long suffered from a scrotal hernia on the left side, for which he had worn a truss. About three o'clock on the morning previous to admission a fresh protrusion had occurred on the right side; he applied, in the course of the day, to a surgeon, who, after making pressure for some minutes, succeeded in pushing up the rupture; he experienced, however, no relief; he had not been able to retain any food on the stomach, suffered great pain in the abdomen, and his bowels had not acted. On examination, a slight swelling was felt in the cord just external to the ring, which seemed like an empty hernial sac, but nothing like protruded bowel could be detected. The abdomen was extremely tense and tender, pain being referred principally to the part above the right groin. The scrotal hernia on the left side could be reduced without difficulty, and without occasioning any pain. His pulse was small and feeble, and his countenance anxious. Considering the condition of his patient to be very urgent, Mr. Curling determined on performing an exploratory operation in the right inguinal region without delay. The man was carried into the operating theatre at half-past three p.m, when Mr. Curling cut down to the sac, which he opened, and found empty, but, on carrying his finger some distance onwards within the abdominal walls, he detected, after some difficulty, and at a considerable depth, a tight stricture, situated internal to the ring, and in a direction nearly perpendicular to Poupart's ligament. In order to enable him to reach this stricture so as to divide it, he was obliged to lay open the sac as far up as the internal ring, and to incise even some portion of the abdominal muscles. He at length succeeded in passing a curved director, with a deep groove, through the stricture, when a quantity of serum, deeply tinged with blood, ran out. A bistoury being carried along the groove of the director, the stricture was divided, so that the finger could be passed freely through the opening. A considerable quantity of serum then escaped. The wound was closed, and the patient sent to bed in an exhausted state; opium and stimulants were ordered; the sickness ceased, but he gradually sank, and died about eight p.m. On examination of the body next day, a coil of small intestine, about two feet in length, nearly black, and partly gangrenous, was found in the lower part of the right side of the abdomen, strictured by a band which proceeded from the mesentery, and, after encircling the intestine, adhered to the front of the abdomen, near the linea alba. This band was partly divided by the bistoury, so as to dilate the stricture, but was not entirely cut through.

Mr. Curling remarked, that the history of the case had led him to suppose that it might be one of reduction *en masse* on the right side, though the sensation of an empty hernial sac was adverse to this conclusion. The urgency of the symptoms indicated the immediate necessity for an exploratory operation, to set all doubts at rest. On feeling the stricture within the abdomen, he suspected that it was caused by the neck of the sac being displaced from the internal ring, the sac being formed by a pouch of peritoneum, which, instead of descending along the inguinal canal, had passed into the iliac fossa,—an extremely rare form of hernia, but of which he had once met with an example. (Vide *Lancet*, July 20, 1850.) By laying open the entire inguinal canal, he had managed, but not without great difficulty, to reach the stricture, and to divide it sufficiently to allow the finger to pass through with freedom. The case proved, however, to be one of internal strangulation from a band connected with the mesentery, and his success in reaching and dividing part of that band showed the importance of perseverance in dealing with such cases. Unfortunately, the intestine had been already too much injured to leave any chance of recovery.

For the particulars of two cases, very similar to the preceding one, in which internal strangulation of intestine occurred simultaneously with that of an external protrusion, and caused the death of the patient after the latter had been relieved by operation, as well as for some brief remarks on this very unusual conjunction of lesions, we must refer our readers to the *Medical Times and Gazette* for Sept. 18 and July 31, 1852.

OPERATION FOR STRANGULATED CONGENITAL HERNIA IN A CHILD NINE WEEKS OLD.—RECOVERY.

[Under the care of Mr. CURLING.]

We recorded, some weeks ago, a case (a) in which Mr. Curling had operated successfully for strangulated hernia, in a child aged 21 months; but the following, in which the little patient was but 9 weeks old, probably has, with regard to age, but few parallels. Our readers may possibly remember, that we remarked respecting strangulated herniæ when occurring at these early periods of life, that they are most commonly *not of the congenital variety* —a circumstance which seemed to find its explanation in the great freedom of communication with the abdominal cavity which exists in the latter form. To this remark, however, the following

(a) *Vide Medical Times and Gazette*, Feb. 19, 1853, p. 189.

case furnishes an exception, as the hernia was congenital.(a) The symptoms of strangulation were severe, as in all cases which we have seen in which the constriction was tight, and quite as urgent as is usually the case in more advanced life.

Henry Neales, aged nine weeks, was admitted on Monday, March 14, with symptoms of strangulated hernia. His mother stated, that he had seemed in perfect health up to Saturday, March 12, when he appeared out of spirits, did not take the breast so freely as usual, and several times returned the milk by vomiting. On the following day, (Sunday,) the child being worse, and having vomited matter which the mother says was "exactly like mutton," she took it to a medical man, who considered that the stomach was out of order, and directed that a teaspoonful of castor oil should be given. This the child instantly returned, with more of the yellowish brown matter. On Monday, the child being still worse, refusing the breast, and vomiting frequently, the mother took it to another surgeon, who, suspecting hernia, examined the inguinal region, and, finding a rupture, attempted the taxis for a few minutes, but without avail. Concluding that an operation would be necessary, he advised its removal to the hospital.

3 p.m.—The child has a shrunken appearance; there is a scrotal hernia on the right side, about the size of a small pullet's egg; the abdomen is tense and painful. The mother brought some of the matter vomited, which was decidedly of a stercoraceous character. Mr. Curling having applied the taxis for a short time without avail, proceeded to the operation. The skin was transfixed in the usual manner, and some layers of fascia having been carefully divided, the sac was exposed. It appeared to have within it some coagulated blood, probably the result of the application of the taxis. The hernia now was easily returned, and the wound was afterwards dressed in the ordinary manner. There was very little hæmorrhage during the operation. The sac was not opened.

Evening, 8 p.m.—The infant is doing remarkably well, and takes the breast freely. The bowels have been open three times. Warm fomentations to be applied to the abdomen.

March 15.—The child is still improving; bowels open.

17th.—The dressings and sutures were removed; the wound is looking well, and nearly the whole of it has united by the first intention. There being a little discharge, a bread poultice was applied. Bowels open every day.

21st.—The wound has healed, and, the child appearing quite well, is to leave the hospital.

Mr. Mantell, Mr. Curling's house-surgeon, from whom we have obtained the above particulars, informs us that the little patient died of erysipelas a week after its discharge. There had been no symptoms of a return of the intestinal lesion.

(a) Since writing the above, we have witnessed another operation for strangulated hernia in an infant. The patient, a little boy, aged one year, was admitted into St Bartholomew's Hospital, under Mr. Lawrence's care, on Wednesday last, April 26. The tumour, which filled the right half of the scrotum, had existed since Sunday, during which the bowels had been obstinately confined, and frequent vomiting had occurred. The taxis having proved ineffectual, under the influence of chloroform Mr. Lawrence performed the usual operation, divided the stricture, and returned the bowel without opening the sac. The child is, we believe, doing well. The hernia was not of the congenital form.

SCIENTIFIC LECTURES.

HUNTERIAN LECTURES ON THE ANATOMY AND PHYSIOLOGY OF FISHES AND REPTILES.

By RICHARD OWEN, F.R.S.,
Hunterian Professor to the College.

THIS DAY, APRIL 30.—Lecture XVIII.—Muscular and Nervous Systems of Reptiles:—Conditions of low development of cerebellum in Batrachia; relations of its modifications to generation and locomotion. Membranes of neural axis. Cerebral, spinal, and sympathetic nerves. Organ of taste; of smell; of seeing; of hearing.

TUESDAY, MAY 3.—Lecture XIX.—Digestive Organs of Reptiles:—Mouth. Beak. Teeth: their number, structure, development, and reproduction. The Tongue: its prehensile and projectile mechanism in Batrachia and in the Chameleon. Labial, Lingual, and Salivary Glands. Œsophagus. Stomach. Intestinal Canal. Cloaca. Peritonæum: its processes and outlets. Liver. Gall-bladder. Gall-ducts. Pancreas. Spleen.

THURSDAY, MAY 5, AND SATURDAY, MAY 7.—Lectures XX. and XXI.—Vascular and Respiratory Organs of Reptiles:—Absorbent system. Lacteals. Cysterna chyli. Lymphatics: lymphatic plexuses and pulsating sacs. Venous system: hepatic veins and sinuses. Heart: its characteristic diversity of structure in Reptiles; consists of a partitioned auricle and a simple ventricle; or of two auricles and a simple ventricle; or of two auricles and a partitioned ventricle. Sinuses. Valves. Pericardium. Arteries. Branchial arches and bulbus arteriosus: its metamorphosis in Reptiles into pulmonic and aortic trunks; abdominal aortic anastomosis. Retia mirabilia. Lungs: continue in Reptiles to represent arrested stages of a higher development. Trachea, bronchi, and a larynx, progressively superadded to the lungs. They retain the mechanical function of the air-bladder in some Reptilia, and combine that of air-reservoirs with lungs in others. Mechanism of respiration, where the ribs are absent or immovable. Relations of the low respiration and mixed pulmonic and systemic circulations to the low temperature and muscular energy of Reptiles.

LIST OF SCIENTIFIC MEETINGS.

This Evening,	April 30.	ROYAL INSTITUTION.—*Subject*:—"On Static Electricity." By Professor FARADAY. Three o'Clock.
——	——	MEDICAL SOCIETY OF LONDON.—*Subject*:—"On Stricture of the Urethra." By JOHN CHIPPENDALE, Esq. Eight o'Clock.
Monday,	May 2.	ROYAL INSTITUTION.—*Annual Meeting.* Two o'Clock.
——	——	EPIDEMIOLOGICAL SOCIETY.—*Subject*:—"On the Comparative Mortality in Large Towns and Rural Districts, and the Causes by which it is Influenced." By J. SNOW, M.D. Half-past Eight o'Clock.
Tuesday,	May 3.	ROYAL INSTITUTION.—*Subject*:—"On the Electric Telegraph." By W. CARPMAEL, Esq., C.E. Three o'Clock.
——	——	PATHOLOGICAL SOCIETY OF LONDON. Eight o'Clock.
Wednesday,	May 4.	GEOLOGICAL SOCIETY. Half-past Eight o'Clock.
Thursday,	May 5.	ROYAL INSTITUTION.—*Subject*:—"On Technological Chemistry." By Dr. E. FRANKLAND. Three o'Clock.
——	——	HARVEIAN SOCIETY.—*Meeting of Council.* Half-past Seven o'Clock.
Friday,	May 6.	ROYAL INSTITUTION.—*Subject*:—"On the Nutritive Value of the Food of Man under Different Conditions of Age and Employment." By LYON PLAYFAIR, M.D. Half-past Eight o'Clock.
——	——	WESTERN MEDICAL AND SURGICAL SOCIETY.—*Meeting of Council.* Seven o'Clock.
Saturday,	May 7.	ROYAL INSTITUTION.—*Subject*:—"On Static Electricity." By Professor FARADAY. Three o'Clock.
——	——	MEDICAL SOCIETY OF LONDON. Eight o'Clock.

Medical Times & Gazette.

SATURDAY, APRIL 30.

THE INCOME TAX.

THE Chancellor has opened his Budget, and injustice is its basis. He now acknowledges, however, the unfairness of taxing the income of the hard-worked and badly-paid Surgeon, and the income of the fundholder, at the same rate,—of taxing the 400*l.* a-year, resulting from the expenditure of the health and strength of the professional man, and the 400*l.* a-year being the interest of money vested in the funds, as though they represented the same capital. Yes, Mr. Gladstone, at last, confesses that professional men have reason to complain of the bearing on them of the present Income Tax. But, while making this confession, he declares that he is unable to afford them any direct relief, that the tax is so *very productive*, so *certainly productive*, that the House had better be careful to avoid all attempts to make it more equitable. Jonathan Wilde once addressed some of his companions thus:—

"Turn honest men! Earn your bread by hard labour! Cease to bid the traveller stand and deliver! Gentlemen,—Consider the consequences. *Now*, any day that you have need of a few extra guineas, you can request those who have them to bestow their wealth on you; your wants are certain to be supplied. *Then*, if from any cause an extra demand were made on you, what resources would you have? How hard, gentlemen, it is to earn money honestly, you have no idea; of the delights of stealing it, you have tasted. Be wise, then, and continue in your evil courses." "But," replied one of his masked friends, "by honest labour we might earn enough to support us."

To him Jonathan answered:—

"The present mode of obtaining money is *very productive, and certain to be productive.* If you adopt another, you may have to starve, for you will be deprived of that ready and effective resort to which, hitherto, you have been able,

in all times, to look, as a course open to you in circumstances of difficulty and trouble."

The advice was agreeable to the idle, ignorant, and prejudiced of his hearers; and as they constituted the majority, he carried the following Resolution amid loud applause:—

"The productiveness of highway robbery, taken in conjunction with the wants of the robber, fully justifies, in the opinion of this meeting, the continuance of that mode of obtaining money."

After the most deliberate consideration of Mr. Gladstone's speech on laying his Budget before Parliament, we cannot find in it an argument in favour of the present Income Tax more cogent than might be used by the highwayman in favour of Hounslow-heath—a mask and pistol!

Public feeling is, he says, in favour of the professional man; nay, *it is* unjust to tax his income at the same rate as that of the fund or land holder; but then remember, he adds, it is impossible to separate the case of the country surgeon from that of the Archbishop of Canterbury,—remember that the former and the latter must be taxed at the same rate.

To frame a just Income Tax is impossible, therefore make no alteration in it. Mr. Gladstone would, we suppose, leave London streets unwatered, because it is impossible to water all the roads in the kingdom; he would have London left in its present ill-drained condition, because it is impossible to devise a perfect system of drainage,—a system by which every stench should be prevented. He would have the hungry man decline a penny loaf, because a two-penny one was required to satisfy his appetite.

The great body of the Medical Profession will benefit very little by the reduction in the duties the Chancellor offers as compensation for the Income-tax.

We trust, therefore, that the Profession will exert themselves strongly to obtain some modification of the tax, or, if that be impossible, to obtain something as compensation; *e.g.*, the reduction of the House Tax in favour of houses used for professional purposes.

MR. SYME AT THE MEDICAL & CHIRURGICAL SOCIETY.

The great event of the week has been the appearance of the surgical Northern star in the metropolis of the South; in other words, the celebrated performer, Mr. Syme, has come from Edinburgh at his own particular request, and has performed, for one night only, for the gratification of himself and of the members of the Medical and Chirurgical Society. The audience mustered in great numbers, but, unfortunately, the other principal performers failed to sustain their chief, and the drama was accordingly enacted by a troop of subordinates, picked up at a short notice, with the aid of a few supernumeraries engaged expressly for the occasion, but whose services might just as well have been dispensed with, as their performances failed to afford satisfaction. Mr. Syme, however, acted his own part in his usual style, and was, of course, the hero of the piece. He came armed to the teeth to slay the Philistines of London surgery, and came off perfectly victorious, for, at the conclusion of his one night's campaign, he might well exclaim with Lord Grizzle,—

> Thus far with victory our arms are crowned:
> For though we have not fought, yet have we found
> No enemy to fight withal.

In fact, whether it were to be attributed to the coldness of the weather or the prevalence of the influenza, to the attractions of the Italian Opera or the press of other professional engagements, the other parts in the piece were but feebly sustained, owing to the non-appearance of several *artistes* of celebrity. Hence the absorbing interest was centred in Mr. Syme himself, who proclaimed himself to be the great, and indeed the only, operator of the present day, having cured cases which were pronounced incurable by the most distinguished London and other surgeons, and who declared that his own operations had been invariably successful, however often they might have failed in other less cautious and experienced hands. The *dénouement* consisted in the proclamation of a general amnesty towards the London surgeons by the Imperial Autocrat of the Caledonian capital, responded to by an *allegro* chorus by the pardoned culprits, and the curtain fell amid shouts of applause from the subordinates and the supernumeraries. But the whole performances were rather coldly received by the audience in front of the curtain, who evinced something like disappointment at the attraction being limited to the engagement of a single star, and the piece was not given out for repetition. The feeblest part of the drama was unquestionably the termination, for the minds of the audience had been so excited in the first act, that it was supposed the winding up of the plot would be effected through the medium of a general combat by all the characters, with at least half-a-dozen broken heads; whereas the general reconciliation at the finale gives the whole affair an air of flatness, and resembles the conclusion of a farce rather than that of a first-class play. We do not think the piece will add to the reputation of the author; and perhaps the managers will shew a sound discretion in withdrawing it from further representation.

THE ELECTION OF EXAMINER IN MATERIA MEDICA IN THE UNIVERSITY OF LONDON.

A Committee of the Senate of the University of London, appointed last year to consider the subject of Convocation, congratulated the Senate by stating, that, "up to the present time we believe those duties to have been on the whole satisfactorily performed," and that the system appeared to have worked well. No future Committee will, we believe, have the audacity to make a similar affirmation, now that the circumstances attending the election of Examiner in Materia Medica have transpired. Perhaps the worst feature in this affair is the fact, that the members of the Senate permitted themselves to be canvassed in the same manner as the electors of counties and boroughs, and, in some instances, actually promised their votes before they had an opportunity of examining and discussing the relative merits of the several candidates! It might have been anticipated, that the members of so learned a body, occupying an important post in one of the chief educational institutions of England, alive to the responsibility attached to their duties, would have been incapable of such indiscretion, to use the mildest term of censure that occurs to us.

It seems, that four gentlemen inscribed themselves as Candidates for the appointment. Two of these — Drs. Garrod and Ballard — are Graduates of the University of London; the other two, Graduates of other Universities, — Dr. Owen Rees being an M.D. of Glasgow, and Dr. Forbes Royle of some other University, but of what we have been unable to ascertain.

The qualifications of these gentlemen we will briefly enumerate. Dr. Garrod is Professor of Materia Medica in University College; Gold Medalist in Medicine in the M.B. examination of 1843; joint author with Dr. Ballard of a

Manual of Materia Medica; editor of "Thomson's London Dispensatory," and author of numerous papers in the transactions of learned societies and in the medical journals. Dr. Ballard was Gold Medalist and Exhibitioner for Anatomy and Physiology, and for Chemistry, in the first M.B. Examination 1841; Gold Medalist and Exhibitioner for Physiology and Comparative Anatomy, and for Medicine, and second in Midwifery, at the second M.B. Examination 1843; and Gold Medalist for Medicine in the M.D. Examination 1844. In conjunction with Dr. Garrod he wrote the Manual of Materia Medica already mentioned, and has since published a monograph on the Diagnosis of Diseases of the Abdomen. Dr. Forbes Royle is Professor of Materia Medica at King's College, the author of an excellent manual of Materia Medica, and of a magnificent work on the botany of the Himalaya Mountains. Dr. Owen Rees is M.D. of Glasgow, Fellow of the College of Physicians, Assistant-Physician and joint Lecturer with Dr. Golding Bird on Materia Medica, at Guy's Hospital; author of an essay on "The Analysis of the Blood and Urine," and of two works on urinary diseases. He has, further, delivered the six lectures on Materia Medica at the College of Physicians.

We submit to the judgment of the Profession the qualifications of these four candidates, for the purpose of showing that a gross piece of injustice towards the Graduates has been perpetrated by the Senate of the University of London, in electing a stranger, and one who, although a man of ability, has done literally nothing in that particular department of medical science to justify the Senate in placing him over the heads of their own alumni, who, on their parts, have done honour to the University in their examinations and subsequent works. Such men as Drs. Garrod and Ballard surely ought not to be passed over or defeated by private intrigue, as we have strong reason to believe was the case in the late election. Without placing implicit reliance on the statements put forward by one of the Graduates of the University, published in our last Number, we have received sufficient information to enable us to state, that great exertions were made by Dr. Bright, and that the non-medical members of the Senate were actively canvassed for Dr. Owen Rees. We cannot sufficiently condemn the system of canvassing the members of the governing body of a learned Institution, in the same manner as it is customary to canvas the Governors of an hospital or any other charitable institution, in which the Governors are acknowledged to be incapable of estimating the relative merits of the candidates. As it is rumoured that several new Examinerships in the Medical Sciences are about to be created, it is of the utmost importance that such disgraceful proceedings should have an end; and we hope to find, on future occasions, that the just, preferential claims of the Graduates of the University of London over the Graduates of other Universities, will be acknowledged by the Senate in all cases where men of decidedly greater eminence are not to be found among the Candidates.

The Senate are grievously mistaken in supposing that they can everlastingly preserve the high position of the University by selecting their officers from extraneous sources, to the entire neglect of their own body; for, eventually, the public will naturally inquire how it has happened that, with the high pretensions of the Senate and their stringent examinations, they are incapable of selecting the responsible officers of the University from among their own Graduates. Moreover, we look upon it as a duty of the Senate towards the Graduates to endeavour, as much as in them lies, to assist in raising the Graduates in public estimation, which they can only do by elevating them to posts of honour in their own University.

THE VACCINATION BILL.

We have much pleasure in stating, that the new Vaccination Bill has been delayed in its progress, for the purpose of ascertaining the views of the Profession on the subject, and that it will not be introduced into the House of Commons for some weeks. In the meantime, we hope that such alterations will be made as to render the measure generally acceptable to the Profession, and useful to the community.

THE MEDICAL BENEVOLENT COLLEGE.

In again calling the attention of our readers to the forthcoming Festival of this Institution, which takes place on Wednesday next, at the Freemason's Tavern, we beg to remind the Profession of the great success which it has already achieved, and we think we may prophesy ultimate success to the plan of its founders, if its cause be promoted by the Profession with the same zeal as they have hitherto manifested. Until the present time, the objects of the medical world have been of too diverse a character, and have been deficient in purpose and concentration; but the felicitous progress of the Medical Benevolent College shews that the Profession can exhibit unanimity of energy, when the cause of charity is pleaded, and that all conflicting views can be merged, when the interests of the widow and of the destitute, and the education of the young, are at stake.

ROYAL COLLEGE OF PHYSICIANS.

The following letter has recently been addressed by Dr. Hawkins, the Registrar of the Royal College of Physicians, to the Honourable Henry Fitzroy, M.P., etc., one of the Under-Secretaries of State for the Home Department:—

Royal College of Physicians, April 27, 1853.

Sir,—I am directed by the President and Charter Committee of the Royal College of Physicians to request that you would be pleased to lay before Viscount Palmerston the following observations on the letter from Dr. Beamish, of Ramsgate, of which, by His Lordship's directions, you have been good enough to transmit to them a copy.

It is satisfactory to them to be able, in the first place, to assure His Lordship, that the remarks in Dr. Beamish's letter respecting the 4th clause of the proposed new Charter of the College of Physicians, "which, in its retrospective effect, he thinks, would inflict a great injury" on himself and the class to which he belongs, are founded on misapprehension, not of the clause only, but of the whole Charter. For, if the Charter be attentively examined, it will be clearly seen that it neither was intended to have, nor can possibly have, any retrospective operation whatever, and that it cannot, therefore, affect, in the smallest degree, the legal right which the Extra-licentiates possess of practising as physicians in the country. The sole object of the 4th Clause is to confer a benefit upon the Extra-licentiates (which, however, it will be entirely at their own option to accept or decline), by enabling those of them who desire to avail themselves of its provisions, to become members of the College under the new Charter, whereby they will be rendered eligible to the Fellowship, and, through that, to any offices or honours which the College may have to bestow, and will, moreover, acquire that which they do not now possess, the right of practising in London. This offer is made to them on terms quite as liberal as could be proposed with even the semblance of justice to all the existing members of the College, each of whom has contributed not less than 36*l.* towards its support, whereas the Extra-licentiates have contributed to the same object the sum of 10*l.* only.

In Dr. Beamish's letter, it is made a subject of complaint that it should be proposed by the College to place the Extra-licentiates on the same footing, as to the payment of fees,

with Graduates of British and Foreign Universities who have as yet not paid anything to the College. One reason for this arrangement was, that a large portion of the Extra-licentiates are not Graduates of any University, nor themselves of any College in Scotland or Ireland, and have never undergone, therefore, either the ordeal or expense of graduation or of admission to a College of Physicians, before they received their letters testimonial from the President and Elects of this College. But the principal reason was, that the offer of the College was intended to be compulsory on Graduates practising without licence or ex-licence, (of whom, unfortunately, there are many in the country,) but, as regards the Extra-licentiates, it is left entirely to their own option. In one respect, the Committee admit that Dr. Beamish has a slight ground for complaint, inasmuch as being himself a Graduate of the University of Edinburgh, he might, under the 5th Clause of the proposed Charter, be admitted as a member of the College on payment of 15 guineas, even if he had not obtained and paid for his letters testimonial. To correct this inequality, though to the Committee it would hardly appear to be a matter of great moment, they would recommend that a proviso should be appended to the 4th Clause, directing that those Extra-licentiates who have taken degrees, or possess diplomas which would entitle them to be received as members of the College under the 5th Clause, shall be received as such, on payment of 5 guineas instead of 15 guineas. To other Extra-licentiates they do not think that the same remission ought to be extended, for the reasons which have been already stated.

It will not, they suppose, be denied, that as the College of Physicians has never received any endowment from the State—its very edifice having been erected by means of the subscriptions of some of the former and of the present Fellows—all persons who are admitted members of it ought to contribute towards its support. They think, also, that those who will be admitted under the new Charter during one year from its being granted, should bear in mind how much smaller will be their contribution than that of any of the former or of the existing members, or probably of any future member, who will be admitted after the term assigned in the 5th Clause of the proposed Charter shall have expired. I have the honour to be, &c.

FRANCIS HAWKINS, M.D., Registrar.

REVIEWS.

Report of the President of the Queen's College, Galway, for the Academic Year of 1851-52.

We have been hitherto prevented, by the great pressure on our columns, from noticing the Reports of the Queen's Colleges, Ireland. This, however, has not been owing to any want of interest on our part in the success of these institutions. Notwithstanding the difficulties which these Colleges have had to contend against, and the apathy and indifference evinced towards them, we are glad to learn that their progress has been, and continues to be, steady and constant, though slower in some respects than could be wished. The following extract from the Report of the Galway President shows better than any words of ours could the nature of the obstacles which this Institution in particular was subjected to at its commencement:—

"On the wealth and population of the neighbourhood in which an institution of this kind is situated, its progress, especially at its opening, must almost entirely depend. When these exist to any great extent, and when to them is added a strong desire for knowledge on the part of the people, nothing can retard its quick and steady progress. In the case of the Galway College, these elements of success exist in a very small degree. The population of the town of Galway is less than a fifth of that of Belfast or Cork, where the sister Colleges are placed. In wealth, there can scarcely be a comparison between the localities, while any very ardent zeal for knowledge has still to be created here. It will be easily seen, that an institution placed in such a locality must depend for support upon resources not local, and that the bulk of its students must be such as are not resident in its vicinity."

Such is a very accurate picture of the condition of things at the foundation of the Galway College; and, bearing this in mind, we cannot but regard the success which has been achieved already as most encouraging. If the arguments just urged apply with truth to the department of arts, they hold good with still more force in the case of medicine; and, instead of being disappointed that the Medical School of Galway does not present numerously attended classes, we should be surprised that the attendance was already so numerous. To the Professors, we would only say, be not disheartened; with zeal and industry in the various departments of medical teaching, there is no reason why a medical school of great excellence should not exist in Galway, and be largely attended too. In a German town of half the size, there have been associated in teaching medicine and the allied branches of science, a Liebig, a Vogel, and a Bischoff. In a town not larger (Würzburg) the pathological instruction of a Virchow now attracts the remotest European, and even transatlantic visiters.

We learn, with great satisfaction, that a measure is in contemplation, and that steps are being conjointly taken by the three Colleges for its accomplishment, which will be of great service to the student, and will help materially to diminish the demands on his often too slender purse. With this view, it is contemplated to establish halls or boarding-houses, where the students shall be able to reside at a moderate cost. Those who understand what economy may be practised by the system of association and clubbing of expenditure, will readily see how much may be actually saved by this mode in the outlay of the student, and at the same time how much his real comforts will be better supplied, to say nothing of the excellent moral effect to be anticipated from the association of young men together, and their meeting at stated hours of the day in an orderly and gentlemanlike manner.

"The advantages to be derived from such a measure would not be confined to a diminution of the students' expenses alone. The extreme inconvenience of living at a distance from the College, when he must attend lectures at different hours of the day, would be removed; the comfort and accommodation which well-established halls would afford him, as compared with many of the places where he is at present forced to reside, cannot be over-estimated; while the fact of being always under the eye of the College authorities would afford an additional security for the rectitude and propriety of his demeanour and conduct."

We would gladly see these suggestions carried out more extensively in the English and Irish Metropolis. To medical students they would afford inestimable advantages, especially if, as in London, gentlemen of eminence in the Profession could be induced to preside over them, as resident principals.

To the Queen's Colleges generally we wish heartily every success, and shall continue to watch their progress with much interest.

Inflammation of the Breast and Milk Abscess. By Thomas William Nunn, Surgeon to the Western Dispensary, Demonstrator of Anatomy at the Middlesex Hospital. Small 8vo. Pp. 52. London: Renshaw. 1853.

This essay by Mr. Nunn is on a very important subject, and may be read with benefit by such of our readers as are not well acquainted with the diseases of the mammary gland. In our opinion, however, it hardly contains sufficient novel matter to warrant publication as a book; and, since medical libraries must be limited in size, it would have been better had it appeared in one of our numerous journals. Remembering, also, the admirable remarks of Sir Astley Cooper upon this affection, we think Mr. Nunn would have acted more wisely, had he devoted his attention to the consideration of those diseases of the breast which were not touched upon in the unfinished work of this great surgeon; although, in fairness we must mention, that the deficiency has been in a great measure supplied by the excellent dissertation of Mr. Birkett, which, it may be remembered, gained the Jacksonian Prize for the year 1848. We cannot find that Mr. Nunn refers to either of these treatises, but he is doubtless well acquainted with their contents.

As a specimen of our author's clear style, we will quote the following remarks, on the causes of inflammation in the breast, which are thus arranged:—

"1. Secretional congestion.
"2. Irritation of sore nipples.
"3. Mechanical irritation.
"4. Exposure to cold.

"5. The condition of the tissues remaining after a previous attack.

"6. Irritation from a vitiated state of its secretion.

"7. Irritation from the increased arterial supply involved in lactation.

"8. Over-lactation.

"While investigating the causes of inflammation in a glandular organ, we must recognise the conditions arising from its peculiar structure. The mechanical irritation of a foreign body will inflame a vascular texture, as, for instance, the conjunctiva. A poisoned state of the blood will give rise to intense inflammation in some portion of the body, the integument, as, for example, in erysipelas. Injury to the nerves of a part will, in certain cases, produce the same effect; anæsthesia of the fifth nerve is liable to be followed by destruction of the eye-ball. In a gland, we have esoteric influences at work. A gland is liable to have its microcosm deranged, as Mr. Simon has described, from the accumulation of its own secretions, and thus have originated within a source of irritation which may easily become the cause of the spoiling of the organ. While a gland thus is rendered liable to disorder, from its peculiar endowment, it enjoys no immunity from dangers to which the other highly vascular tissues are exposed."—P. 13.

From the foregoing, it will be seen, that Mr. Nunn not only possesses a clear knowledge of his subject, and a capability of conveying that knowledge to others, but that he has also mental powers which deserve occupation in a more original field than he has ventured upon on the present occasion.

PROGRESS OF MEDICAL SCIENCE.

SELECTIONS FROM FOREIGN JOURNALS.

UPON ABSCESS OF BONE AND ITS TREATMENT.

By Dr. C. W. KLOSE.

The author remarked, that acute abscess of bone occurred by far the most frequently in the diaphyses of the long bones, and especially in their lower extremity; that it occurred most rarely in the broad and spongy bones, more commonly in the short phalanges, but always in bones with medullary cavities. The previous inflammation is rarely observed, yet it develops itself invariably in the diploë; the secondary inflammation of the soft parts is peculiar in its producing adhesion of the fascia and cutaneous structures to the bone. The bone itself increases in volume, and changes in form. This is owing to effusion of exudation into the cells of the diploë, and the subsequent expansion of both the outer and inner lamellæ of the bone. If the outer table be removed with the trephine, it is found, upon examination with the probe, that the bony texture is soft and yielding, as compact glandular texture, and that the point of the probe, when moved about, soon becomes involved in some of the distended cells of the diploë. Should suppuration ensue, the cells are broken down, and the pus may find its way into the medullary cavity. The walls of the cavity become coated with a soft, vascular membrane. After the discharge of the pus, vessels shoot from the membrane, forming fat cells between their anastomoses. The neighbouring osseous tissue is osteoporous, and offers but little resistance to the course of the pus; after the evacuation of the abscess, fistulous passages frequently form through other parts of the bone. The author states, that the bony cavity may be detected by percussion.

Glandular enlargements are common, but are no necessary complication of abscess in bone. The epiphyses are affected often, in so far as the pus becomes infiltrated into their porous tissue. The diagnosis of this affection from necrosis, and the formation of sequestra, consists in the feeling communicated to the sound in the latter case of a rough surface, and a loose, moving body. Caries occurs mostly in spongy bones, rarely in long bones; and is connected with scrofulous or tuberculous diathesis.

The treatment of abscess of bone is most frequently to be considered in practice after the evacuation of the pus and the formation of fistulæ. These passages, in their bony course, have dead or necrosed walls; and this it is which makes the healing of the external wounds so tedious. The osteoporous condition of the neighbouring bone renders exfoliation slow and difficult. The removal of the necrosed borders of the fistulous passages is one of the chief indications for the surgeon. Trephines should be put over each of the openings, and all suspicious parts should be carefully removed. The author never saw osteophlebitis after the operation.—*Günsb. Ztsch.*, III. 5. 1852.

UPON TUBERCLE IN BONE.

By Dr. E. A. MEINEL.

The author is surprised that so careful observers as Cruveilhier, Andral, Louis, Rilliet, and Barthez, should have paid so little attention to tuberculosis of bone. In the former century, Platner, Paleta, and Pott, occupied themselves with the subject; and, in 1816, Delpech endeavoured to refer all cases of "Pott's disease" to tuberculosis of the vertebræ, and to prove that cure ensued from the deposit of new bone under the periosteum. Tubercle in other parts of the skeleton have been observed by Kerst, Retzius, Boyle, Laennec, and others. Nelaton and Rokitansky have done most to elucidate tuberculosis of bone. Nelaton distinguishes encysted tubercle from tuberculous infiltration; the former, commencing in semi-transparent, grey granulations, produces absorption of bone; the deposit becomes softened, and is discharged by fistulæ, the cavity either filling up, or more commonly becoming carious. Infiltration commences also in grey granulations, which, however, adhere to the cancelli, and are not accompanied by further change in the osseous texture. A semi-purulent degeneration ensues, without corresponding development of vessels, but with interstitial bony hypertrophy; ultimately there is necrosis, sequestration, and exfoliation.

Rokitansky makes tubercle attack bone either as granulation or as an inflammatory product, resembling disintegrated tubercle. Tuberculating exudation, with softening and the formation of abscess, commences generally in the periosteum, and attacks the affected bony surface secondarily. The changes which tubercle undergoes are softening and concretion. Softening produces ulcer or loss of substance in bone and necrosis. If the process should go on within, there ensue caverns, with fresh deposits around their walls. The periosteum, when affected, becomes converted into a jelly-like, lardaceous mass. Rokitansky attaches importance to the peculiar characters of the osteophyte formation in such cases.

The author gives particulars of 105 cases, partly examined by himself, partly by Ried and Dietrich, partly taken from published records; and concludes that softening ensues only when fibrinous yellow tubercle is formed. The greyish red spots of Nelaton, resembling encephaloid matter, occur only when both the chief forms of tubercle are deposited. Bloodvessels exist only when the deposit is formed upon a new texture to which the vessels are proper, or when they belong to surrounding normal tissues. He questions the encysted form of tubercle. The seat of the tubercle is sometimes the outer lamella of bone; sometimes the periosteum; sometimes the spongy texture. It commences in the periosteum in one-tenth of the cases; the vertebræ first; the long bones next are the parts most commonly affected. According to Nelaton, there are two varieties of bony tissue,—a fatty cellular structure, seen at the end of long bones and in the bones of the extremities; and a red vascular cellular structure, met with in all the bones of the trunk. Tubercle occurs exclusively in the latter only in children, where this difference in structure is not marked.

In 50 cases of general tuberculosis, Paproine found the bones affected in 3 instances. Cless found but 3 in 150 cases. The comparative frequency of affections of other organs in tuberculosis of bone, the author arranges in the following way:—Lungs, 69; alimentary canal, 45; lymphatic glands, 28; brain, 19; spleen, 18; liver, 16; pericardium, 9; organs of generation, 9; pleura, 8; kidneys, 8; peritoneum, 7; dura mater, medulla spinalis, 5; larynx, 4; urinary bladder and urethra, 2; stomach, 2; voluntary muscles, 1; choroid, 1. In 105 cases, there were 69 with, and 36 without, pulmonary tuberculosis. There were 11 cases without tuberculosis in any other organ; and the author proves the existence of tuberculosis of bone as a primary disease. Of the 45 instances of intestinal tuberculosis, 38 were in the small, and 7 in the large intestine.

The frequency of the disease in the different bones may be estimated from the following:—Vertebræ, 64; skull,

23; lower extremity, 21; ribs, 20; upper extremity, 11; sacrum, 8; sternum, 8; pubes, 2.

If the vertebræ be excepted, then the following test will exhibit the correct order:—Ribs, petrous part of temporal bone, sternum, skull-cap, elbow-joint, knee-joint, tarsus, lower jaw, metacarpus, tibia, ankle, sphenoid bone, malar bone, os pubis, carpus, metatarsus, temporal bone, shoulder-joint, wrist, great trochanter. There were nearly twice as many males as females. The age when the disease was by far the most frequent was between 10 and 59. In 59 cases, only one spot of the skeleton was affected; in 46 cases, many. Tuberculosis sometimes affects the skeleton symmetrically.

The author does not think the affection in itself fatal as it occurs in the skeleton. Other organs must become involved. The treatment must be general, so as to raise the powers of the constitution. The author has seen amputation performed with the best result in a case where the knee-joint was diseased, the lungs being sound. In conclusion, the author expresses his belief in Virchow's views of the local nature of tuberculosis.—*Prag. Vjhrsch.*, IX. 3, 1852.

GENERAL CORRESPONDENCE.

THE PRACTICAL WORKING OF THE PROPOSED NEW CHARTER OF THE COLLEGE OF PHYSICIANS.

[To the Editor of the Medical Times and Gazette.]

Sir,—You have done the *Extra-Urbem* Licentiates the honour of a special notice and exhortation in reference to the new Charter of the College of Physicians. Permit me to discuss the merits of that Charter with you, and to set you right on some points on which you sadly misinform your readers.

The President, and eight Senior Fellows, (Elects,) are constituted a Board of Examiners for England, by a clause in the same statute which recites and confirms the Charter of the College. (14 and 15 Hen. VIII., cap. 5.) The person to whom the President, and any three of these Elects deliver their "letters testimonial" of examination and approval, becomes *ipso facto* "a physician of the realm," with certain definite rights granted by other statutes. The document is, therefore, an irrevocable diploma, granted on the authority of an Act of Parliament.

The College is a London guild, with a jurisdiction limited to London, and within seven miles thereof. You are right, therefore, in saying that the College, as a College, has no authority over the Extra-licentiates, who practise beyond those limits as physicians of the realm. But you might, with equal accuracy, have added, that the College, as a College, has no authority whatever over, and nothing whatever to do with, any other class of physicians practising out of London; so that its continual interference with Scotch and other graduates so practising is wholly unauthorised.

Not so, however, would its interference with the President and Elects as a Board of Examiners, for they are Fellows of the College. There are, doubtless, (as you say) in the body of Extra-licentiates "many men of excellent attainments, and of the highest character;" and I am not prepared to say, that the body is more free from "black sheep" than any other class of physicians; but if "improper men," as you hint, have been admitted, the College, as a College, cannot be exonerated from all responsibility. Dr. Francis Hawkins, as Registrar of the College, must have sanctioned the certificates, etc., of study of these men, and Dr. Paris, as President, must have presided at their examinations. The Board is at liberty to make the examinations as strict as they please; if they have been unduly lax, it must have been, therefore, with the connivance at least of the College, which could at any time have applied a moral constraint, such as has been applied by the Extra-licentiates themselves. The President and Elects have received about 4,000*l.* sterling within the last few years for "extra licenses." It is to be hoped, that there has not been a Dutch auction going on within the College walls. The validity, or, rather, rigidity, of the examinations instituted has no sort of bearing, however, upon the legal or professional status of that class of physicians of the realm. Even if they bought and paid for their parchment with a nominal examination, will Dr. Francis Hawkins, or the older Fellows of the College, say that their examination was more strict, or that—not later than a few years ago—the examination for either the licence or the Fellowship averaged half an hour in duration? If the matter is to be decided by the examinations had, let us include all diplomas in the inquiry. But the idea is absurd.

And now, Sir, permit me to discuss the merits of that Charter which is to take the "Extra-licentiates" out of their "present anomalous position," and give them, as you most erroneously assert, "the opportunity of obtaining the highest College honours." But first let me assure you, that these men are quite satisfied with their present position as physicians of the realm, "anomalous" though it be in your idea; they can only desire that the great body of physicians should be united in an efficient corporation, from considerations having reference to the common good. They seek nothing apart from their brethren, beyond the acknowledgment of their legal title. That granted, money considerations will not weigh against a measure which shall combine all in a body with a scheme of government, just and equitable in its provisions, and effectual in its working. Is the new Charter, then, such a scheme?

1. It is well known, that for many years past many "Licentiates" have held wholly aloof from the College, moved thereto by feelings of self-respect and professional honour. The second clause of the Charter provides that these Licentiates shall be "members" of the College. Now, the title "member," by a strange perversion of the word, will indicate a physician without any power or influence in the College whatever,—a physician without the right of voting in any professional business, however trifling. He is a member of the Profession, but certainly no member of the College. He belongs to the class non-elected—the unenfranchised. Will Sir James Clarke, Dr. Arnott, or half the Licentiates in London, acknowledge their disabilities and inferiority, and enter a College the commonalty of which is so set aside from all voice in its affairs? The notion is the most ridiculous we can conceive. Here, then, in the Metropolis, is a breach of the proposed union at the outset.

2. The "Extra-licentiates" (this nickname is in the Charter!) may become "members" on presenting "testimonials of character satisfactory to the Censors," (they have such "letters testimonial," already signed by the President and three Fellows!) and paying fifteen guineas, besides Stamp-duty. And what will these men gain by being "members," more than they possess as physicians of the realm? Nothing; on the contrary, they would take rank among those inferior men to whom it is not safe to give a voice in the management of affairs. Will any one of these purchase degradation at the cost of 30*l.* 15s.? The idea is ridiculous; it is certain none will.

3. As to British Graduates, the case may be somewhat different; but it is hardly to be conceived, that they will look upon the measure propounded as that best adapted to the altered requirements of the times. Granted, that some may think it wise to purchase a legal position at the cost of 31*l.* 10s., would not the professional grievances now complained of in London be aggravated, and extended to the country? The Graduates, as "members," would still be nobodies,—what would they be as "Fellows"? What voice would they have in College affairs?

4. The worst possible system of election is adopted in the Charter, namely, that of nomination, or by a "house list,"—a system which has invariably led to corrupt government, whenever and under whatever circumstances it has been applied. The "members" to be elected Fellows must be selected by the Council. (Clauses 9 and 10.) The Fellow to be elected President must be selected from the first fifty Fellows on the list (one-half probably incapacitated) by the Council. The Fellows to be elected Censors must, also, be selected by the Council. The Vice-Presidents are not elected by the Fellows at all, but are named by the President from the first fifty Fellows; and the President selects the Fellows to be elected to the offices of Registrar and Treasurer. The restriction of the choice of Presidents and Vice-Presidents (the "highest College honours") to the first fifty Fellows on the list, renders it almost an impossibility that any Physician not now on the list could fill these offices during his life-time. Four members of the Council of sixteen go out every year, and the Fellows are, as to them, and them only, unrestricted in their choice; but, on the other hand, the President, Censors, Registrar, and Treasurer are *ex officio* members of the Council!—all nominees of that body, directly or indirectly. As if these guards were not sufficient to preserve the patronage and influence of the College to its present possessors, votes by proxy are expressly disallowed. (Clause 31.)

Now, the various elections are on three separate days in the year, namely, the day after Palm Sunday, the 25th of June, and the 22nd of December; so that the non-resident Fellows, if they would exercise their restricted franchise, must go to London three times in the year, at the cost, everything included, of not less than 10*l.* each time. Previously to obtaining this costly privilege, they must have also paid about 90*l.* in fees and stamp duties. Now, I would ask, whether, if such a scheme of government were

gravely promulgated as suitable for any literary or philosophical society, or corporate body whatever, would it not be received with one universal shout of laughter? And this is the scheme which Dr. Francis Hawkins assured Lord Palmerston was "universally considered extremely liberal," and "had been for many years ardently desired," and which you recommend to our support.

5. As an educational scheme, the New College Charter is even worse than as an incorporating scheme. But it would be a waste of time to analyse it. In one word, the Charter is a most mischievous absurdity, without a solitary redeeming feature. Not one clause of the thirty-one is even tolerable.—I am, &c.

T. Laycock,
Secretary to the Associated Extra Urbem Licentiates.
York.

[To the Editor of the Medical Times and Gazette.]

Sir,—In your editorial remarks, at page 433 of your last Number, you state, that the Extra-Urbem Licentiates of the Royal College of Physicians are not really members of the College, and you appear to think, that they are altogether different in this respect from the Intra-Urbem Licentiates who have paid sixty guineas for their supposed entrance into the College portals.

The larger fee demanded of the latter class of Physicians for their licence I look upon as a fair equivalent for the richer field which they are destined to reap; and I do not think the Intra-Urbem Licentiates would grumble to pay the same, if they wished to transplant themselves from the Provinces to the Metropolis. But, if the College of Physicians is to be the College of England, it ought to embrace the London and the Provincial physicians. The Extra-Urbem Licentiates justly protest against being ignored, discarded, and disfranchised. That they are not, as you suppose, so utterly inferior to, and different from, the Intra-Urbem Licentiates, pray take, not my opinion, but that of the late Sir Edward V. Williams, which I here transcribe:—

"In my humble judgment, the Extra-licentiates have no sufficient grounds for claiming an equal participation with the Fellows in the privileges to be conferred by the new Charter. But I cannot see any just reason for making any distinction, in this respect, between the Intra-licentiates and the Extra-licentiates. In the famous contest between the Intra-licentiates and the College, the Licentiates most vehemently insisted on their right, under the Charter, to be regarded as actual members of the College. But, after the decision of Rex *v.* the College of Physicians, 7 F. R., 282, I think it is impossible any longer to maintain that position; and it seems to me, that neither their relation to the College, nor their status generally, in any way materially differs from that of the Extra-licentiates." I am, &c. M. D.

CASE OF SPONTANEOUS EXPULSION.

[To the Editor of the Medical Times and Gazette.]

Sir,—As cases of this description are at all times interesting, and as this one occurred under rather peculiar circumstances, I am induced to forward an account of it to you for publication.

A person came to me, informing me, that a woman, who had been in labour since Monday last, required immediate assistance. On my arrival, I found the patient suffering with sharp and quick labour-pains, an intensely flushed face, furred tongue, with a dry, brown tip, and rather quick pulse. I was also informed, that the midwife who had been in attendance had ruptured the membranes on Monday, (to-day being Thursday,) labour having commenced on the Sunday evening. It had been considered a breech-case, until one of the hands was protruded through the os externum. On looking at the hand, I found the cuticle peeled off, the child having evidently been dead for some days. On passing my hand to the presenting part, I was struck by finding both shoulders engaged in the pelvic cavity, so that I could pass my finger over the left shoulder, which was highest, into the corresponding axilla, although the right hand was external. Both scapulæ could readily be felt, their bases being quite close together, and, with some difficulty, the extremely tense and elongated neck could be traced upwards in a direction between the symphysis pubis and right acetabulum, the occiput resting on the linea ileo-pectinea, above the foramen thyroideum; the shoulders being placed obliquely, the right near the left sacro-iliac synchondrosis, and the left near the right acetabulum. On inquiry, I found that the arm had been pulled down, after which, the pains being strong, both shoulders had been jammed down as I found them. I then introduced my left hand into the uterus, for the purpose of turning, and, after great difficulty, succeeded in reaching the feet, which were situated just above the head, facing the mother's abdomen, the back being obliquely towards the spine. On using the necessary power to effect version, I found that it was chiefly expended on the head, which was then more tightly brought down in the linea-ileo pectinea, and that no power which I dared to use, for fear of injuring the bladder, would effect the object sought. The patient was so ungovernable, that I was compelled to desist, after a short trial. After a short interval, I attempted to reach the feet by passing my right hand over the head, and thus pushing it away from its position, but was again foiled by the unruliness of my patient. I then sent for a sharp hook to perform decapitation, and, in the interval, gently pushed up the left shoulder, the pains having gone off, so that the right arm, shoulder, and side, were made the lowest parts. I did this in the hope that, the pelvis being large, and the child small, (eight months,) and decomposed, spontaneous version might take place. On the return of the messenger, the patient refused to allow me to touch her, and became very violent, but took some brandy and water. After the lapse of nearly half an hour, the pains returned, and, on the occurrence of the second, which was a strong one, she cried out, "The child is coming!" when I was just in time to receive the breech in my hand, the child being completely expelled by the same pain, the head being the part which passed out last. I regret very much not having had an opportunity of tracing the whole process, but the patient would not allow me to make an examination. After the child was born a rather extensive flooding occurred, from the placenta being slightly adherent, but it ceased on the removal of the latter.

My remarks on the case will be very brief, as I do not wish to enter into any discussion. I would remark, in the first place, that I found the right hand the one most suitable for turning, as the left passed by the side of the head, without lifting it from the linea ileo pectinea, so that traction only drew the head down tighter, and put the neck more on the stretch; but, by introducing the right hand, and interposing first it, and then the arm, between the head and the pelvis, the force used in traction would have been expended on the fœtus alone; and, further, by passing the hand along the abdomen of the child, the feet were reached much easier than by carrying it along the back. I would observe, in the second place, the peculiarity of both shoulders being engaged in the pelvic cavity, which leads me to the belief, that it must originally have been a back presentation; and I am further strengthened in this opinion by the statement, that the arm had been pulled down in the belief of its being a leg. This presentation was evidently more unfavourable to spontaneous expulsion than that of one shoulder, as it afforded a less prominent fulcrum for the evulsion of the fœtus. I watched the effect of several pains before turning, and found that, although the shoulders descended lower into the pelvic cavity, yet that there appeared no chance of expulsion taking place. I would also point out the remarkable quickness with which the expulsion occurred after the position of the fœtus was changed, and the one shoulder brought lower than the other, as but two pains sufficed. And, lastly, it must be remembered, that the patient had not gone her full time, being only eight months advanced; that the fœtus was rather small; and that, from its having been dead several days, it was rendered more pliable, and therefore more facile of expulsion than it would otherwise have been. This case must not, therefore, induce us to hope for a similar termination in others in which the co-existent circumstances are different. I am, &c.

John W. Tripe, M.D., M.R.C.S., L.S.A., and L.M.
7, Commercial-road.

MEDICAL CHARGES.

[To the Editor of the Medical Times and Gazette.]

Sir,—I am instructed to forward to you for publication the accompanying Circulars on the important subject of medical charges, for which I shall be obliged. The Sub-Committee would be glad to receive further communications from gentlemen interested in the question.—I am, &c.

Didsbury. Richard Allen.

"November 20th, 1852.

"Sir,—A Sub-Committee of the Medico-Ethical Association having been appointed to ascertain the sense of the Profession in Manchester on the expediency of discontinuing to make specific charges for medicine, and adopting the more professional system of charging only for medical advice and attendance, they request the favour of your attention to the following remarks.

"The Committee beg to remind you, that, within the experience of the present generation, it was usual to charge for medicine only, adapting the form in which it was administered to the pecuniary

circumstances of the patient, but in all instances making the remuneration to depend on the quantity of medicine given.

"Since that period, the Profession has succeeded in modifying this essentially trade principle, by charging for visits as well as for medicine—a custom which has met with a ready acquiescence on the part of the public. The Committee feel, however, that this reform has not emancipated the Profession from a trade alliance, and that the further development of the principle is eminently calculated to raise the status of the General Practitioner, and to secure the confidence and respect of the public.

"The Committee have not failed to observe the difficulties that in some cases may attend the change; they are of opinion, however, that the time has arrived when the higher and middle classes of society would respond to an effort to carry out a principle already acknowledged.

"They have reason to know, that the experience of some General Practitioners has demonstrated the advantages of this change, at the same time that it has obtained the approbation of their patients.

"The Committee would be obliged by your answering the following query at your earliest convenience; and they undertake to make known to the Profession the result of their canvass on this subject.

"RICHARD ALLEN, Chairman."

"QUESTION.—Are you favourable to the change proposed of discontinuing, as far as practicable, to make specific charges for medicine, and of adopting the more professional system of charging for medical advice and attendance only?"

"Sir,—The Sub-Committee of the Medico-Ethical Association, appointed to ascertain the opinion of the Profession in Manchester, on the expediency of discontinuing to make specific charges for medicine, have much pleasure in presenting the following analysis of the replies received to their former circular—favourable, 72; unfavourable, 4. The result of the inquiry gives every encouragement to pursue the matter further, in the confident hope of a considerable reform being effected in the present mode of charging for professional services.

"The precise terms of the proposed change have, in a few instances, not been fully understood. The Committee, therefore, beg to repeat, that the object in contemplation is to establish the practice of charging for professional attendance only, the practitioner supplying medicine or not as may be expedient. Among the large majority who are favourable to the plan, some have expressed an opinion that it would be difficult to carry out with the labouring class. Others have suggested a difficulty in the case where the practitioner having ceased to attend, a repetition of medicine is requested, which would involve a positive loss, particularly if the medicine were unusually expensive.

"The Committee acknowledge the difficulty of accomplishing so great a change without incurring numerous objections on the part of those who may still be prejudiced in favour of the questionable system of remunerating their medical attendant according to the quantity of medicine supplied.

"A well-directed effort, however, cannot fail of success with the intelligent part of the community, and here is the key to the whole question. Experience teaches, that there exists a strong desire to escape from the abuse of medicine being made the means of a pecuniary gain. To this fact may be, in some degree, attributed the success of those practitioners who only prescribe, as well as the mysterious popularity enjoyed by those who eschew the use of medicine altogether.

"The Committee desire it may be understood, that they do not propose to endanger the plan by injudiciously attempting to carry it out in every instance, and they would repeat, that the recommendation is limited by the term 'as far as practicable.'

"The Committee confidently appeal to the experience of those practitioners, who, having tried the system with all classes, declare that the difficulties for the most part are imaginary, and that they vanish at once under the light of explanation.

"After the most careful consideration of the whole question, the Committee beg to submit the following proposition, which they consider is well calculated to place the system of medical charges in a position more consonant with the claims of a scientific Profession:—

"'That medical bills be made out as heretofore, merely giving the total amount, and specifying or not, as may be expedient, the charge made for each visit.'

"The practice of lumping together a long attendance in one amount affords no clue to the principle on which the particular items are calculated, and which, not unfrequently, is regarded as a questionable form of rendering an account.

"The proposal to state the amount of the fee comprehends the twofold advantage of declaring the terms of attendance, and satisfying the patient that he is not taxed with an unnecessary quantity of medicine. On the other hand, if the terms of attendance be not specified on the face of the bill, the Committee are of opinion that it will be incumbent on the part of the practitioner to embrace every opportunity of explaining the principles on which his medical charges are made. In either case the result would be the same, the more intelligent members of the community readily complying with the change, and being impressed with the integrity of the principle, will be found influencing and converting others to appreciate a plan that ultimately must obtain the approbation of all classes.

"May 29, 1853. "RICHARD ALLEN, Chairman."

COMPULSORY VACCINATION.

[To the Editor of the Medical Times and Gazette.]

SIR,—There are four points of interest relating to the subject of vaccination, recently brought into notice by Lord Lyttelton's Bill in the House of Lords, which seem to have hitherto escaped the attention they deserve.

1. If the Bill should pass in its present printed form, the practical result would be to throw vaccination into the hands of the lowest and most necessitous members of the Medical Profession; for it is not likely that the best practitioners would ever become the medical officers appointed according to the provisions of the Act.

2. The Bill nowhere provides for insuring the means of a constant supply of genuine vaccine lymph, in default of which compulsory vaccination would, in many parts of England, become, not only nugatory, but ridiculous.

3. The Bill does not recognise those who are in fact the only vaccinators in England, namely, the General Practitioners. Although Jenner was a physician, yet all the world knows that pure physicians of the present day, not only never vaccinate, but would disdain doing so. It is the same with the pure surgeons. The most delicate, as well as one of the most vital, operations in its ultimate results, does not fall within the surgical province of the hospital staff of surgeons in London. Like the physicians, they never vaccinate. The only vaccinators are the General Practitioners.

4. The Bill seems to be framed in utter ignorance of the fact, that there is no school in England in which vaccination is taught, either directly or indirectly. There is not one of the examining boards in medicine, surgery, or pharmacy, which recognises it as a requisite part of the education of a medical student. In the theory and practice of vaccination he is turned adrift on the world with no more knowledge of this important item of public health than such as he may have acquired from his associates or his books, according to the proportion of his good sense or the necessities of the practice in which he finds himself engaged. The pure surgeon and physician care nothing about it. At least, this is my experience.

I am, &c.

Brighton. J. A. HINGESTON.

SPURIOUS DEGREES.

[To the Editor of the Medical Times and Gazette.]

SIR,—I beg to enclose two letters which should have been forwarded before to you, but were unfortunately mislaid. The person referred to in those letters was a short time since in practice at Seal, in Kent, under the title of Dr. Bishop. He stated, that he was a Bachelor of Medicine of London, and a Doctor of Medicine of Aberdeen; the latter degree having (he said) been conferred on him without residence or personal examination, in consideration of his being a Graduate of the London University. Suspicion having been aroused, I was led to search for his name in the "London University Calendar," but no such name as Edwin Bishop was to be found therein, and the enclosed letters are quite sufficient to falsify his other assertion.

Oxford. I am, &c. MAXWELL T. MASTERS.

"Marischal College and University,
January 11, 1853.

"Sir,—I beg to inform you, that no degree of a medical kind is granted by this University, without a personal attendance and a strict personal examination, by written questions, in the presence of the examiners, and *vivâ voce* also. And further, that no such person as Edwin Bishop got a degree in June or July last.

"I am yours faithfully,
"J. MACROBIN, Professor of Medicine."

"King's College, Aberdeen, January 11, 1853.

"Sir,—In reply to yours, I have to state, that this University does not grant degrees of M.D., unless candidates submit to ex-

amination at the University in presence of the Senatus; and that no person of the name of Edwin Bishop obtained the degree of M.D. from the King's College and University during the time specified in your letter. I enclose a printed list of the names of the Graduates of this University during this century. I may state, that a system of selling forged diplomas has been carried on in England to a great extent of late. You should make Mr. Bishop show his. If he has a diploma, he ought to be, and will be, proud to show it. I shall feel obliged by your informing me of the result. "Yours truly, "A. FYFE.

"M. Masters, Esq."

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Dr. COPLAND, President, in the Chair.

A paper was read, entitled

A CASE OF SCIRRHUS OF THE PROSTATE GLAND, WITH A CORRESPONDING AFFECTION OF THE LYMPHATIC GLANDS IN THE LUMBAR REGION AND IN THE PELVIS.

By JOHN ADAMS, Surgeon to the London Hospital.

A gentleman, aged 59, was suddenly seized with paralytic symptoms, which seemed to arise from derangement of the circulation. During his recovery, he experienced frequent desire to pass urine, and required the constant use of the catheter. The instrument passed over a hard and rough surface, and induration and enlargement of the prostate were felt upon examination per rectum. Pains about the pelvis ensued; the saphena vein became thickened; the thighs were drawn up upon the trunk, and he died three years after the occurrence of the first symptoms.

Examination of the Body.—The lumbar glands were enlarged by the infiltration of scirrhus; so also the lymphatic glands of the pelvis. There were cysts containing pus near the symphysis pubis. The prostate gland was enlarged to nearly twice its natural size; an ovoid mass, distinctly scirrhous, the size of a small nut, projected into the bladder from its upper surface. The left lobe was occupied by a long scirrhous mass; the right lobe appeared healthy. The left vesicula seminalis was diminished in size, and the prostatic plexus of veins contained phlebolithes. The left kidney was enlarged, and contained much sabulous matter.

The President remarked, that primary scirrhus of the prostate was a rare affection, and that organ was most frequently the seat of secondary deposit. He considered that Mr. Adams's case was one of great rarity; and he hoped no time would be wasted in commencing the discussion on so interesting a subject.

Mr. Bowman remembered a case similar in its nature to that related by Mr. Adams, in which the prostrate was affected with malignant disease that involved the vesical extremity of the urethra, and the neck of the bladder, and was attended with excessive pain. The first symptom of the disease in this instance was, a sudden and profuse hæmorrhage from the urethra, which came on without apparent cause, and then ceased, not returning again before the lapse of three weeks. Subsequently, the urine was voided with extreme pain, and great frequency, and the urethra became impeded, so that the urine was discharged with difficulty. It was found impracticable to introduce a catheter. After the patient's death, the prostate was found to be affected with cancer, which displayed, under the microscope, the appearances peculiar to the epithelial variety. The disease had invaded the prostatic portion of the urethra, and destroyed the lining membrane, and thus the early hæmorrhage was satisfactorily accounted for. The lymphatics and absorbent glands in the vicinity were infiltrated with cancerous matter. He had seen since another case, which he believed to have been an example of the same disease, although he had been unable to verify the opinion by *post-mortem* examination. The symptoms were, however, almost exact in their analogy, beginning with hæmorrhage, which was followed after a short time by frequent micturition and excruciating pain during its performance. The chief difference between Mr. Adams's case and those observed by himself, appeared to consist in the absence of hæmorrhage from the former, a circumstance which he thought depended on the cancerous infiltration having invaded and partially destroyed the prostatic portion of the urethra in his own cases, whereas that structure had not suffered impairment in the instance submitted to the Society by Mr. Adams.

Mr. Charles Hawkins had seen a case sent to him by the late Dr. Prout, which he believed had been an example of cancer of the prostate. The symptoms began with hæmorrhage from the urethra recurring at variable intervals, and after a while the urine was voided with extraordinary frequency, and the sufferings of the patient became excessive. Unfortunately, no *post-mortem* could be obtained, so that the morbid conditions of the bladder and prostate remained undetermined; but, looking at the symptoms and their similarity to those presented in other cases, he entertained very little doubt that malignant disease of the prostate and neck of the bladder was the affection on which they depended. With reference to the absence of hæmorrhage in the case narrated by Mr. Adams, he agreed with Mr. Bowman that confinement of the disease to the substance of the prostate and the consequent integrity of the urethra, afforded the true explanation of that circumstance.

Mr. Coote considered that the principal feature in Mr. Adams's communication was the occurrence of primary scirrhus in the prostate gland—an affection, without question, of extreme rarity. There were certain structures, such as the mammary gland, which seemed peculiarly predisposed to be affected with scirrhus, and he believed that it was very unusual to find this form of cancer in other parts Medullary disease, though not often met with in the prostate, was, he thought, a more frequent affection than scirrhus of that organ. Now, scirrhus, it must be recollected, was a genuine infiltration, laid down by gradual and successive deposition in the very substance of the organ, and mingled together with its proper tissues. It was a form of cancer, too, less disposed than medullary to ulceration, and hence, perhaps, an explanation might be obtained of the immunity of the urethra from disease in this particular case, and the consequent absence of hæmorrhage as a symptom.

Mr. Heale offered some observations relative to the occurence of tumours in the prostate, attended with symptoms similar to those alluded to by the last speakers, viz., hæmorrhage frequent, and painful micturition, &c. Having met with symptoms of this nature on several occasions, he was induced to believe that these diseases were not so rare as some gentlemen appeared to consider them.

Mr. Adams had but little to add to the observations which he had made in his paper. The case was interesting chiefly because it presented an example of scirrhus of the prostate occurring as a primary affection of that organ. He had no doubt that such was the nature of the disease, because portions of the affected gland were submitted to microscopic examination, when the elements characteristic of hard cancer were clearly seen. He had communicated with Sir Benjamin Brodie respecting the case while it was yet under treatment, and Sir Benjamin informed him, that a similar case had occurred to him some years before, in which he considered the disease to have been a malignant affection of the bladder and prostate, although no opportunity had been afforded him of establishing his diagnosis by *post-mortem* examination. He concurred entirely in the explanation which had been given by Mr. Bowman and Mr. Hawkins, of the entire absence of hæmorrhage, both as a primary and secondary symptom in the case.

A paper was then read, entitled

A CASE OF PERFORATION OF THE ŒSOPHAGUS, WITH OBSERVATIONS.

By THOMAS SALTER, F.L.S., F.R.C.S., etc., of Poole.

This patient, aged 42, clerk in a merchant's office, a man of intemperate habits and a spirit-drinker, suffered at various times from dyspeptic symptoms, accompanied by a tendency to constipation. Subsequently, he expectorated a quantity of clear mucus, tinged with blood. Then, after an attack, supposed to be mild bronchitis, he became much reduced in strength; difficulty of swallowing came on, and, after the food had passed the pharynx, it was shortly ejected with force, covered with mucus from the trachea. He died; and, upon examination, there was found, answering to the diagnosis, an ulcer of the œsophagus, without induration, opening into the left bronchus. A similar case was mentioned to the author by Dr. Armitage, who had witnessed it in the Charité Hospital, Berlin. Mr. Salter concluded with some remarks upon the danger of passing bougies in such cases where there was a possibility of the walls of the œsophagus being thinned by disease. Such practice might hasten the event, which, in the present case, immediately led to the patient's death.

Dr. Copland suggested, that there were several points of interest in the paper.

Dr. Barclay thought it very possible that a piece of bone, or of some other solid substance, had been swallowed by the patient, and, having stuck in the muscular wall of the œsophagus, had produced the ulceration. He thought this was a much more probable explanation than the one offered by the author; for, considering the numbers of people who drank freely of raw spirits without suffering

ulceration of the pharynx or œsophagus, the notion that the ulceration in this instance was caused by the irritation of raw spirits was scarcely tenable. He had witnessed a case at St. George's Hospital in which a piece of bone had, by its impaction in the posterior wall of the œsophagus, produced a large ulceration, which, extending backwards, involved and destroyed the intervertebral substance, and, making its way into the vertebral canal, affected finally the spinal cord.

Mr. Coote observed, that, had Mr. Salter been present, he would no doubt have replied conclusively to the remarks of Dr. Barclay; and, in the absence of the author, he thought that the suggestion of Dr. Barclay could hardly be admitted, because, as the case had evidently been drawn up with minute attention, and every circumstance relating to it had been carefully noted, he (Mr. Coote) felt sure that, if there had been any evidence of the ulceration having been produced by the impaction of a foreign substance, the author would certainly have mentioned it.

The President said, that, some time ago, he had been consulted respecting a case of simple ulceration of the œsophagus, by which an opening had been made into the trachea low down. The particulars of the case were related in his work on Practical Medicine. In this instance, a considerable portion of the patient's food passed into the air passages, and was expelled by coughing. An electuary, containing muriate of ammonia, was found to afford considerable relief to the patient.

Dr. Maclachlan did not consider these cases to be so rare as the author seemed to believe. He had seen an example of it in a patient in Chelsea Hospital, in which the disease began with symptoms of stricture of the œsophagus, on which high bronchial irritation and difficulty of breathing suddenly supervened. After death, it was found that malignant disease of the œsophagus existed, which, having advanced to ulceration, had established a communication with the trachea. He was acquainted also with another case, in which the symptoms were very similar, and began in the same way, with difficulty of swallowing. No *post-mortem* could, however, be obtained in this instance.

Mr. Coote remarked, that the peculiarity in Mr. Salter's case consisted in the establishment of a large ulcerated communication between the œsophagus and trachea, without any precursory symptoms of constriction, or any deposition of cancerous matter. Nor was there any evidence that the ulceration had been set up by the impaction of a foreign body. The case, therefore, presented no analogy to those examples in which ulceration followed stricture of the œsophagus,—examples by no means rare, or to the ulceration resulting from malignant disease, or preceded by the formation of a pouch, for both these morbid conditions were frequently observed, as many specimens in the Metropolitan museums could testify; but it was an instance of simple ulceration of the œsophagus, excited apparently by the repeated contact of irritating stimuli, unpreceded by stricture, or the formation of a pouch, and independent of malignant deposition.

Mr. Charles Hawkins asked, if any of the Fellows were acquainted with an instance in which ulceration of the œsophagus had been caused by the practice of taking large quantities of snuff. He had been formerly acquainted with a lawyer who indulged very freely indeed in this habit. He was a gentleman of strong constitution, and belonging to a healthy and long-lived family. One Sunday, however, after dinner, hæmorrhage from the mouth to a most formidable extent suddenly took place, which subsided, but three days afterwards returned, and proved fatal.

A paper was read, entitled

ON THE MECHANISM BY WHICH AIR IS ADMITTED TO THE CAVITY OF THE TYMPANUM THROUGH THE EUSTACHIAN TUBE, AND ITS BEARINGS ON THE PATHOLOGY OF THE MIDDLE EAR.

By T. WHARTON JONES, F.R.S.,
Professor of Ophthalmic Medicine and Surgery in University College Hospital, and Ophthalmic Surgeon to the Hospital.

The author, being so young a Fellow of the Society, felt some diffidence in rising, (on Tuesday, March 22,) to assert that views which he then heard read, in a paper by Mr. Toynbee, regarding the physiology and pathology of the middle ear, were not quite new to English medical literature. He referred, in his present communication, to a passage in an article on the Diseases of the Ear and Hearing in the "Cyclopædia of Practical Surgery." "Is the guttural orifice of the Eustachian tube habitually open?" The answer given is, "No." In a state of rest, the outer and inner walls of the cartilaginous and membranous portion of the Eustachian tube lie in contact; the tube is thus provided with a weak valve, through which the air may pass. He believed that the carbonic acid in the tympanum will be displaced by oxygen from without, according to the law of the diffusion of gases shown by Professor Graham. The author believes, that, in the act of swallowing, the morsel of food is prevented entering the posterior nares by the soft palate, which, when elevated, shuts off these openings from the pharynx. If the nostrils be held closed at this moment, the air must be compressed into the tympanic cavity.

A discussion of a physiological character ensued, which was supported by Mr. Toynbee, Mr. Wharton Jones, and Mr. Brooke.

The Society adjourned at the usual hour.

THE ABERNETHIAN SOCIETY OF ST. BARTHOLOMEW'S HOSPITAL.

CASES ILLUSTRATING THE USE OF CHLOROFORM IN THE TREATMENT OF HERNIA.

By W. S. SAVORY,
Tutor at St. Bartholomew's Hospital, etc.

Case 1.—OBLIQUE INGUINAL HERNIA, REDUCED UNDER CHLOROFORM.

Arthur Hurst, aged 23, by occupation a butcher, living in London, of good general health, was admitted into Bentley Ward, under the care of Mr. Stanley, on Oct. 31, 1851, at 3 p.m. Countenance rather anxious; skin cool; pulse 96, small; tongue moist, furred on the dorsum. He has vomited repeatedly since 7 a.m. The bowels were relieved freely eighteen hours ago, and scantily about eight hours since. A tumour, about the size of a common egg, extends from the right internal ring, along the canal, into the scrotum; it is firm and tense, and conveys a slight impulse on coughing. He complains of pain when the tumour is handled, but there is no tenderness in the neighbouring parts, or in the abdomen generally. A very small swelling in this region was accidentally discovered about two months ago; it soon disappeared under pressure, but has since repeatedly returned. He has never worn a truss. The present tumour appeared about 2 a.m.; he was making no exertion at the time. Not being able to return it as usual, he applied to a medical man. He was placed in a bath, and taxis employed for fifteen minutes without success. Under these circumstances, it was determined to remove him at once to the operating theatre, and, while under the influence of chloroform, to repeat the attempt at reduction, and, if unsuccessfully, to operate without further delay. Chloroform having been freely administered, the hernia was reduced without much difficulty. In a few days he left the hospital, wearing a truss.

Case 2.—CONGENITAL INGUINAL HERNIA, REDUCED UNDER CHLOROFORM.

George Newland, aged 42, a farrier, living in London, of regular habits, good general health, and robust aspect, was admitted into Bentley Ward, under the care of Mr. Stanley, on Nov. 25, 1851, at 3 p.m. Countenance anxious; skin natural; pulse 90, of moderate volume; tongue clean and moist. No vomiting. Bowels scantily relieved this morning. He complains of great pain in the right iliac region, and states, that he is suffering from a rupture. A firm and tense tumour extends from the internal ring, along the spermatic cord, into the scrotum, of irregular shape, and somewhat constricted about the middle. An impulse is distinctly felt on coughing, but the tumour and the parts around appear very tender. He has "had a rupture" ever since he can remember, but has been always able to reduce it. He has never worn a truss. About four hours ago, the tumour appeared of unusual size, without any apparent exertion, and all attempts at reduction failed. He was placed in a bath (temp. 100°,) and taxis employed, without success. He was then removed to bed, and placed completely under the influence of chloroform. The taxis being repeated, in about three or four minutes the hernia was reduced, the tumour almost suddenly disappearing with a gurgling sound. A bandage was applied, and he was discharged on the following day.

Case 3.—OBLIQUE INGUINAL HERNIA REDUCED UNDER CHLOROFORM.

John Ashford, aged 31, by occupation a smith, resident in London, of irregular habits, but of good general health, was admitted into Bentley ward, under the care of Mr. Stanley, on Nov. 1, 1851, at nine p.m. Countenance natural; skin cool and moist; pulse 70, of moderate volume; tongue clean and moist; no vomiting. The bowels were relieved six hours ago. A firm, elastic tumour, about the size and shape of a common pear, communicating an impulse or coughing, but not tender to the touch, extends from the left inguinal ring into the scrotum. He first perceived

a swelling in this region nine years since, after great exertion, during which he thinks he strained himself. It disappeared under pressure. It has repeatedly returned, but he has never had any difficulty in reducing it. He has generally worn a truss. Yesterday, about seven a.m., (twenty-six hours ago,) he incautiously lifted a heavy weight, not wearing the truss; the rupture descending, became suddenly larger and more tense than usual, and he was unable to return it. About twelve hours since, he took a dose of croton oil, which produced two scanty evacuations, the last occurring about three p.m. Previously to his admission, taxis had been persevered in for a considerable time by a medical man. He was at once placed in a bath, (temperature 98°,) and, after remaining in it for about fifteen minutes, taxis was employed for ten minutes without producing any effect upon the tumour. The symptoms not being urgent, he was placed in bed, and ordered pil. saponis c. opio gr. x.

Nov. 2, ten a.m.—He has passed a good night, having slept comfortably. There are no fresh symptoms; the bowels have not acted. Having been placed completely under the influence of chloroform, the hernia was readily reduced.

Nov. 6.—He was discharged, wearing a truss.

Case 4.—OBLIQUE INGUINAL HERNIA, REDUCED UNDER CHLOROFORM.

George Gale, aged 25, living in London, of robust aspect and good general health, was admitted into Bentley Ward on the 29th of December, 1851, at 4½ p.m., under the care of Mr. Lloyd. Countenance flushed and anxious; skin warm and moist; pulse 70, soft; tongue clean; constant vomiting since yesterday at noon, latterly the matter rejected has become stercoraceous. The bowels were slightly relieved this morning. There is a large oblique inguinal hernia on the right side; the tumour is tense and tender, and communicates a very feeble impulse on coughing. The swelling commenced about six months ago; when first discovered it was very small, but has gradually increased in magnitude until the present time. He has never before failed in reducing it, and has generally worn a truss during the last month. At 11 a.m. yesterday, while carrying a load, his truss slipped, and the rupture suddenly appeared of unusual size. He was unable to reduce it, and has since suffered considerable pain. All attempts at taxis, both in and out of the warm bath having failed, he was placed fully under the influence of chloroform at 7 p.m., when, after some time and trouble, Mr. Paget reduced what appeared to be intestine, a thickened portion of the sac remaining behind.

January 7, 1852.—He was discharged, wearing a truss.

Case 5.—OMENTAL FEMORAL HERNIA.—OPERATION, AND RECOVERY.

Martha Jenner, aged 58, a nurse, was admitted into Lucas ward, on October 11, 1851, at 12 noon, under the care of Mr. Stanley. Countenance and skin natural. Pulse 80, small. Tongue clean, inclining to be dry. She has vomited repeatedly for the last three days. The bowels have been scantily relieved both yesterday and to-day. An oval tumour is situated over the left femoral ring, tense, and extremely tender. There is no impulse on coughing. The swelling appeared suddenly three days ago, during great exertion. It has gradually become painful and tender. She is unable to retain any food. She has never before had a rupture, and before coming to the hospital had not received any medical advice. On account of the extreme tenderness, &c., she was removed at once to the operating theatre, and placed fully under the influence of chloroform. While attempting reduction, Mr. Stanley distinctly felt something pass from the tumour into the abdomen, but it did not feel like a piece of intestine: the tumour became softer, but the portion that remained resisted all attempts at reduction. Mr. Stanley decided to proceed with the operation.

Two p.m.—After the division of Gimbernat's ligament, the hernia could not be reduced. After the further division of a few layers, there was a sudden gush of pus. The sac had then been opened, and a portion of omentum was found to have suppurated in an old thickened sac; this portion was removed, and a free opening remained, leading into the cavity of the abdomen. The external incision was closed by sutures, a pad and bandage applied, and the patient removed to bed.

Eleven p.m.—From the time of the operation, the pulse (then 84 has gradually increased in frequency; it is now 110. Countenance anxious. Skin rather dry. Tongue inclining to become dry. She has vomited once since the operation. No action of the bowels. Slight tenderness over the lower half of the abdomen. Ordered,

Pil. saponis c. opio gr. v. statim.

October 12 (10 a.m.)—She has slept during the greater part of the night. Countenance still anxious. Skin hot and dry. Pulse 112, rather small, and jerking. Tongue still drier. No sickness. Bowels not yet relieved. She has taken some nourishment. (Nine p.m.)—Pulse 136, rather hard, and more jerking. Tongue dry. Great abdominal tenderness. Slight delirium.

V.S. ad ℥ xij. Haust. sodæ tartratis, ℥ jss.; 6tis horis sumend. Pil saponis c. opio gr. v. statim sumend.

October 13. (Ten a.m.)—She has slept well. Countenance improved. Skin hot. Pulse 132, more compressible, and less jerking. Tongue moister. Bowels not relieved. Less tenderness. Edges of the wound are slightly inflamed. Blood neither buffed nor cupped. The sutures were taken out, and a poultice applied to the wound.

Pil. saponis c. opio gr. v. nocte sumend.

October 14.—Countenance more natural. Skin moist. Pulse 120, soft. Tongue more natural. No action of the bowels. The edges of the wound still tender and inflamed. Cataplasma panis.

October 15.—Pulse 95. All other symptoms improved, but no action of the bowels.

October 17.—To day the bowels were freely opened (six days since the operation). From this time she rapidly improved, and on the 20th was ordered broth diet, mutton chop, porter Oj.

November 1.—The wound is healing rapidly by granulations.

Early in December she was discharged.

Case 6.—OBLIQUE INGUINAL HERNIA—OPERATION, AND RECOVERY.

Timothy Spillman, aged 23, of a florid complexion, and, although very intemperate, of good general health, was admitted into Bentley Ward, on Dec. 14, 1851, at 7 a.m., under the care of Mr. Stanley. His countenance, skin, and pulse, are natural. No nausea. The bowels have not been relieved for twenty-four hours. A tense elastic tumour about the size of a common egg descends from the inguinal ring of the right side into the upper part of the scrotum. There is a slight impulse on coughing. He says it is very painful, and shrinks when it is touched. The testicle lies below; and close to the epididymis an oblong tumour, about the size and shape of a bean, extremely hard, resisting all pressure, and apparently insensible to the touch, is felt. He states, that he has had a small rupture for seven years; he has paid no particular attention to it, and does not clearly remember how it originated. About six months since it became of unusual size, and could only be reduced with the aid of a warm bath. He had no further trouble with it until last night, when, about 10 p.m., without any apparent cause, it became larger and more tense than usual. He was unable to return it, and it has gradually become very painful. Upon being closely questioned, he says that the tumour never entirely disappeared, a small portion always remaining behind.

Half-past 7 a.m.—A gentle attempt at reduction was made both in the warm bath, and under the full influence of chloroform, without success.

Half-past 11 a.m.—Mr. Stanley commenced the operation for dividing the stricture. A small incision was made over the external ring, which was exposed and divided directly upwards; taxis was then unsuccessfully employed. The internal ring which lay almost behind the external (the hernia being of long duration) was then exposed, and the lower border of the internal oblique and transversalis muscles having been notched, reduction was a second time attempted without success. Layer after layer of fibres passing transversely over the neck of the sac were divided until its whole thickness was cut through, when a small dark nuckle of intestine, much congested, was exposed, and, under gentle pressure, readily passed into the abdomen. Some omentum remained behind, adherent to the sac, which was now opened to the extent of the external incision. The omentum was then separated, and some small vessels having been secured, was returned into the abdomen. The small, hard tumour was now examined, which was found to lie outside the sac. This was divided over it, and the tumour was readily turned out. It may be best described by saying, that it resembled in all respects one of those loose cartilages sometimes found in the interior of the knee-joint. It consisted of firm fibro-cartilage, with an abundant deposit of bony matter throughout its substance. The external wound was united by sutures, a pad and bandage were applied, and the patient removed to bed. He did not awake from the effects of the chloroform, but passed insensibly into a sound and healthy sleep, evincing no consciousness of what had occurred. He slept soundly, with one short intermission, until

Dec. 15, (5 a.m.)—When he awoke, and passed a large quantity of solid fæcal matter, and then again fell asleep.

1 p.m.—He has just awoke. Countenance dull and heavy, as if from want of sleep. Skin natural. Pulse 100, soft. Mouth

and tongue dry, (he sleeps with his mouth open.) He complains of thirst. Abdomen soft and tolerant of pressure. Ordered milk diet.

16th.—He has passed his time almost entirely asleep; he makes no complaint, and takes food. Pulse 90; bowels relieved four times in the night.

17th.—Pulse 84; the dressings and sutures were removed; about three quarters of an inch of the wound has united, the other portion is granulating favourably; he complains of pain in the testicles and scrotum. The edges of the wound were protected by lint, and supported by strapping, and cold lotion was applied to the scrotum below.

18th.—Wound healthy; scrotum red and tense. Broth diet. Cat. lini. scroto.

19th.—The wound looks healthy, but the part which had united has separated; the scrotum is tense, and fluctuates. An incision was made, and a considerable quantity of pus evacuated.

21st.—The lower part of the scrotum still being tense and tender, a second incision was made, and some more pus evacuated. Ordered Haust. sodæ tartratis, ʒiss., pro re natâ.

22nd.—The bowels have not been relieved for the last three days, but ol. ricini ʒss. produced a copious evacuation. The wound in the scrotum is granulating freely. Ordered broth diet, two eggs, mutton chop, daily.

23rd.—More pus was evacuated, with considerable relief.

27th.—All things are progressing favourably; he complains of being unable to sleep. Ordered Pil. saponis c. opio, gr. v., nocte cum opus sit.

From this time all went on favourably; his health and strength rapidly improved, and the wound soon healed.

Jan. 10.—He was discharged, being provided with a truss.

MEDICAL NEWS.

Royal College of Surgeons.—The following gentlemen having undergone the necessary examinations for the diploma, were admitted Members of the College at the meeting of the Court of Examiners, on the 22nd inst.:—

Alexander, Edward William, St. Helena.
Arthur, Joseph, Shadwell.
Bayfield, Samuel Joseph, St. Thomas's-st., Southwark.
Blackett, William Cuthbert, Durham.
De Mier, Jose' Maria, Santa Martha, New Granada.
Dixon, Thomas, Bedford.
Forder, Thomas, Winchester.
Howard, James Fielden, Rochdale, Lancashire.
Morley, Edward Sword, Blackburn, Lancashire.
Moxon, Thomas Henry, Brigg, Lincolnshire.
Vaughan, William Edward Wedge, Crewe, Cheshire.

The following gentlemen were admitted members on 25th inst.:—

Bonnyman, James, Alexandria.
Culbard, John Chisholm, Elgin.
Hudson, John, Newport, Yorkshire.
Jenkins, Richard, Swansea.
Maclean, Lachlan Hector John, Australia.
Marriott, Peter William, Loddeswell, Devon.
Parkinson, George, London.
Parsons, C. W. N., West Haddon, Northamptonshire.
Smith, Charles Irving, London.
Torin, John Richard, Brussels.
Tyte, Robert Henry, Pinner, Middlesex.

Errata.—In the notice of the award of the Jacksonian Prize, which appeared in this journal last week, it should have been to Mr. Thompson, of Wimpole-street, not *Welbeck-street*.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, April 21, 1853:—

Bishop, Henry, Beckley, Sussex.
Buchanan, George, Myddelton-square.
Fraser, James Thomas.
Lowdell, Sidney Poole.
Spicer, George, Tonbridge Wells.
Terry, Thomas, Bath, Somerset.
Treffry, Richard Baron, Nottingham.

Oxford University.—It is notified to Students of Medicine who purpose to offer themselves as candidates for the degree of Bachelor in that Faculty, that the next examination will be held on Tuesday, May 31. Candidates are required to transmit to the Regius Professor of Medicine the usual certificates of their having complied with the requisitions of the Statute tit. vi., sect. 5, §§ 1, 3, on or before Monday, May 16.

Oxford Botanic Garden.—The Fielding Herbarium being now arranged, may be consulted by members of the University between the hours of twelve and five every week-day during term, and whenever the Sub-Curator is in attendance in the vacations. Other persons desirous of examining this collection are to apply for permission to the Professor of Botany, or to either of the other Curators.

APPOINTMENTS.

Military.—Assistant-Surgeon Robert Ferguson, from the Staff, to be Assistant-Surgeon., vice Gordon, promoted on the Staff. Hospital Staff.—Assistant-Surgeon Huntley George Gordon, M.D., from the 95th Foot, to be Staff-Surgeon of the Second Class, vice Logie, appointed to the Royal Horse Guards. Johnston Ferguson, gent., to be Assistant-Surgeon to the Forces, vice Ferguson, appointed to the 95th Foot.

Medical.—Liverpool Northern Hospital.—Mr. George Millett Davis has been elected Honorary-Surgeon to this Institution.

DEATHS.

Tulloch.—April 12, at Newcastle-on-Tyne, aged 63, Benjamin Tulloch, Esq., surgeon, M.R.C.S.Eng., 1814. The deceased had been an eminent and successful practitioner in this town during a long course of years. A more kind-hearted, generous, and benevolent man, is rarely to be found. His charities were as unceasing as they were unostentatious; and, in the discharge of every moral, social, and religious duty, his conduct offered a bright example to all around him. While endowed with the manners and feelings of a gentleman, he endeared himself to all who were brought within the sphere of his influence. Suddenly called away from this world, in the midst of a career of extended usefulness, his death is deeply lamented by his sorrowing family and a numerous circle of attached friends.

Horley.—April 25, at Hoddesdon, Herts, in his 56th year, Wm. Horley, Esq., M.R.C.S.Eng., 1821; L.S.A. 1822.

Jardine.—Lately, at New York, aged 35, Walter Jardine, Esq., by suicide, in consequence of extreme poverty and destitution.

Royal Society.—The Earl of Rosse, as President of the Royal Society, gave his first *soirée* for the season on Saturday. Among those present were, Sir J. Clarke, Sir D. Brewster, Sir B. Brodie, Sir H. Holland, the President of the College of Physicians, the Astronomer Royal, Professors Faraday, Sharpey, Wheatsone, and Tennant; Dr. Playfair, Dr. Bence Jones, Dr. Thompson, Dr. Farre, Dr. Owen Rees, Dr. Twiss, Dr. Sibson, Dr. Lee, etc.

University College Hospital.—The Earl of Clarendon took the chair, on Thursday week, at a dinner in aid of the funds of this Institution, supported by Sir James Graham, Mr. Strutt, M.P., Sir Edward Ryan, Mr. Hume, M.P., the Hon. G. Denman, Baron de Goldsmid, Mr. John Wood, and Mr. Heywood, M.P. About 120 gentlemen assembled. In proposing the toast of the evening, the noble Chairman spoke strongly in behalf of the hospital, which he said was situated in the middle of a densely populated neighbourhood, and, besides ministering to the wants of the poor in sickness, and when suffering from accidents, provided a medical school which was a national benefit. 100 beds were the least number requisite for such a school, and in University College Hospital, 120 beds were filled, but there was accommodation for 200, and therefore, on account of the inadequacy of their funds, 80 remained empty. This was a lamentable fact, whether it was regarded in relation to the wants of the poor, or the arrangements of the hospital. It was free in all cases of accidents, and no applicants were refused whom it was possible to receive. During the past year, its benefits had been extended to 16,000 persons, of whom 1,200 were in-patients, 400 women in childbirth, and 600 or 700 cases of ophthalmia had been treated at their own residences, while the rest were out door patients or casual applicants. In affording this relief, little more than 5,000*l.* had been expended, which he regarded as showing great economy in the management. The hospital stood high in the estimation of the clergy in the neighbourhood, and the noble Earl mentioned, that his brother, the Rev. Montague Villiers, had borne the strongest testimony to its usefulness. He concluded by exhorting the company to support liberally so noble an Institution, which, since its establishment, had expended 107,000*l.* in alleviating the sufferings of the sick poor. Mr. Hume also spoke warmly in support of the Institution, which he praised, first, as a medical school, and then for the good which it did in alleviating the sufferings of the humbler classes in its neighbourhood. He alluded to the early struggles of University College, and to the

exertions of Lord Brougham on its behalf, whose services in the cause of education were not now fully appreciated. He took a peculiar interest in University College Hospital, having been one of the early promoters of the College. It had a double claim upon public support, from uniting with the beneficent uses of an hospital the advantage of a great medical school; and he thought that Lord Clarendon was well placed in the chair that evening, having contributed so materially to the success of the Queen's Colleges in Ireland, which were founded on the model of University College. Subscriptions to the amount of 1,500*l.* were announced in the course of the evening, including two very handsome donations from the Misses Elliotson, of Clapham.

Warneford Hospital, Oxford.—On Wednesday, Mr. Male, the late House-Surgeon, was invited to attend a meeting held in the Committee-room at this hospital, when he was presented with a very handsome testimonial, on his retirement from the duties of an office which he had long and worthily filled. The testimonial consisted of a handsome silver oblong inkstand, and was an exquisite specimen of the taste and workmanship of the makers; it bore the following inscription:—"Presented as a memorial of gratitude and esteem to James Edward Male, Esq., late House-Surgeon, by the Committee, Medical Officers, and other supporters of the Warneford Hospital. 1853." The inkstand was accompanied by a pocket-book, containing the sum of 30*l.*

Oxford Medical Dispensary.—According to the last Quarterly Report, there were on the books on the 1st of January, 62; admitted during the quarter, 277: total, 339. Cured, 198; relieved, 39; transferred to the infirmary, 4; transferred to the parish, 6; irregular, 6; died, 19; on the books, 67: total, 339.

Medical Provident Institution, Stratford-upon-Avon.—Through the instrumentality of this Institution, during the short space of fourteen years, upwards of 5000*l.* has been spent in procuring for a class of persons medical relief at a time when it was not in their power to obtain it, except through the medium of the Poor-law. The ramifications of the Society have been wide—co-extensive with the Union; a fact vouched for by simply stating, that 25,000 invalids have been the recipients of its bounty. The handsome response made to the efforts of the Committee by an assemblage of company (to a ball) within the walls of the Town-hall, in this borough, on Tuesday week, amply testifies that it is appreciated. The list of donations shows, that charity is not dead, but only waiting to be awakened to its duties. The company was numerous, considering it was the first ball of the kind that has taken place. The donations amounted to 90*l.* 10s. 6d.

Hanwell and Colney Hatch Lunatic Asylums.—At a meeting of the Middlesex magistrates lately held, on the notice for the consideration of the Report from the County Lunatic Asylum at Hanwell being read, Mr. Laurie called attention to the great number of lunatics at the present time in the Hanwell and Colney Hatch pauper lunatic asylums. Mr. Serjeant Adams said the difficulty arose from the want of a suitable establishment where persons not properly coming within the sense of the term "pauper lunatics" could be received and paid for at a moderate cost, instead of their being compelled to be sent to private asylums at such a cost as would have the effect of rendering their friends and relatives paupers themselves. He felt assured, that if such an Institution could be procured, the best interests of humanity would be consulted. On the motion of the Chairman, the sum of 2,000*l.* was granted towards the purchase of some land, adjoining the grounds of the Colney Hatch Asylum, from the trustees of the late Mr. Henry Clive. The Chairman then moved, that the sum of 6,000*l.* be granted for carrying into effect different works and matters suggested in the Report of the Committee.—Carried.

Goitre and Cretinism.—A recent discovery with respect to the iodine in water, and its influence on the human organization, is of too great an interest to be passed over here, the more so, as it may lead our sanitary philosophers to some fresh considerations. The affliction of goître and cretinism, painfully familiar to all Alpine travellers, has always been attributed to the water drunk by the inhabitants of those districts which are the homes of these cretins. M. Chatin many years ago announced, as the result of his investigations, that the absence of iodine from the water was the predisposing cause of the disease. He has recently placed this hypothesis beyond a doubt. Fully and Saillon, two villages on the right bank of the Rhone, although almost touching each other, have long been remarkable: one village, Fully, being a notorious cradle of cretinism; the other, Saillon, being as notoriously free from goître or cretinism. Of late years, however, Saillon has in its turn become infected. And the reason, say the inhabitants, is none other than the sanitary measures recently taken to purify the water! Formerly the water of the Salente, before reaching the village, was wont to mingle with the streams of a hot spring, named *source de fer*. To bring purer water into the village, they altered its course, and turned it away from the hot spring. Observers declared, that the date of the appearance of goître in Saillon coincides pretty nearly with that of their being blessed with "pure water." M. Chatin investigated the matter; he analyzed the water of the Salente, the water of the hot spring, and the water where the two streams mingle; the results confirmed his previous publications: he found the Salente water free from iodine, and the water of the hot spring and of the two mingled strongly impregnated with it. The conclusion is irresistible: wherever the water in these districts is free from iodine, cretinism and goître are observed among the inhabitants; wherever it is impregnated with iodine these diseases are absent. To "purify water" is not always to make it better adapted to our organism; and there may be some physiological instinct in that paradoxical lady's announcement, "I like water with a dead-cat-and-dog flavour in it."—*The Leader.*

Medical Profession in Prussia.—A statistical account of the Medical Profession in Prussia has just been published at Berlin. According to that document, there are at present 287 district physicians, 3266 practitioners, 962 surgeons of the first class, and 973 of the second class: sum-total, 5488. These figures being put by the side of the amount of population, which was at the last Census 16,216,912 souls, will give one physician or surgeon for about 3000 inhabitants. The number of veterinary surgeons is 828, and the apothecaries amount to 1471.

The Paris Academy of Sciences has filled up, with the name of M. Bunsen, the chemist, the vacancy in its body occasioned by the death of the late M. Welter.

West Indies.—With the exception of the parish of Westmoreland, suffering from the small-pox, and the re-appearance of a few cases of the same disease in the town of Montego Bay, the health of the islands is pretty good. The weather, as is usual at this time of the year, was inclining to drought.

Cholera.—The *Gazette de Moscow* announces the breaking out of the cholera in that capital.

Yellow Fever.—The yellow fever had made its appearance among the shipping at Jamaica, and had in many cases proved fatal.

The Agamemnon is now (April 22) in a more healthy condition, and there seems some hope of the sickness leaving her, as no new cases or relapses have taken place this week. The officers and crew (April 26) have been turned over from the Camperdown, the sickness having entirely disappeared, and her stores are being reshipped with all possible despatch.

Mortality in New York.—There were 21,458 deaths in New York in the year 1852.

Female Medical College of Pennsylvania.—The following is a list of the graduates of this College at the commencement, January 27th, 1853, with the subjects of their theses:—Hannah W. Ellis, Philadelphia, "Parturition." Henrietta W. Johnson, New York city, "Functions of the Skin." Annan N. S. Anderson, Bristol, Pa., "General Physiology." Charlotte G. Adams, Boston, Mass., "De Effectis Lactationis Nimia." Julia A. Beverly, Providence, Rhode Island, "Ferrum." Margaret Richardson, Philadelphia, "Phthisis Pulmonalis." Almira L. Fowler, New York city, "Relations of Body and Mind." Maria Minnis, New York, "Medical Jurisprudence." Augusta R. Montgomery, New York, "Medical Education of Women."

Experiment in the Propagation of Fish.—We understand that Dr. Robertson, of Dunkeld, questioning the popular idea as to the natural history of fish, which is, that the male and female meet on the redd or spawning bed for the purpose of each depositing its roe and milt in the channel—and conceiving, on the contrary, that the ova of the female were impregnated previous to their development within the body of the fish—in order to test this theory, took a number of live female trout from the spawning bed, and, having extracted the roe, deposited them in a perforated zinc box, containing also some gravel. All these, upon the 14th of October last, were placed in a running stream, and, on examining the box last week, several of the ova were found to be hatched, of which a specimen may be seen by any one taking an interest in the matter. The proof of this will completely do away with the trouble of obtaining the milt to apply to the roe, as is done by the French fishermen, and establishes a theory strongly advocated by Mr. T. Stoddard. From the severity of the winter, the whole of the ova are not yet hatched, but a sufficiency are, to prove the truth of this theory. We understand that the doctor is preparing a detailed account of the experiment, which will appear soon.

MORTALITY IN PUBLIC INSTITUTIONS for the week ending April 23 :—

	Males.	Females.	Total.
Workhouses	55	69	124
Military and Naval Asylums ..	7	..	7
General Hospitals	25	17	42
Hospitals for Special Diseases .	1	3	4
Lying-in Hospitals	1	...	1
Lunatic Asylums	5	3	8
Military and Naval Hospitals..	4	..	4
Hospitals and Asylums for Foreigners	2	1	3
Prisons	1	...	1
	101	93	194

MORTALITY NOTABILIA.—The mortality of London continues to decrease by slow degrees. In the three weeks of April the number of deaths returned have been 1340, 1243, and in the week that ended last Saturday, 1182. In the ten corresponding weeks of the years 1843-52, the average number of deaths was 944, which, if raised in proportion to increase of population since the deaths occurred, will give a mortality of 1038 for last week. Hence, it appears, that the 1182 deaths registered last week are in excess of the estimated amount by 144. Fever, which threatened to spread its ravages, has, so far as the mortality affords an indication, apparently subsided. The mean temperature of the week was 45·9°, which is rather below the average of the same week in 38 years. The highest temperature in the week was 60·5° on Monday, the lowest was 37·3° on Saturday.

DEATHS *in the Metropolis for the week ending Saturday, April* 23, 1853.

CAUSES OF DEATH.	APRIL 23. 0	15	60	All Ages.	Sum of Ten Weeks.
ALL CAUSES	540	385	243	1182	9442
SPECIFIED CAUSES	538	385	242	1165	9367
1. Zymotic (or Epidemic, Endemic, and Contagious) Diseases ...	167	37	14	218	1849
SPORADIC DISEASES:					
2. Dropsy, Cancer, and other Diseases of uncertain or variable seat ...	3	28	19	50	469
3. Tubercular Diseases	83	120	8	211	1949
4. Diseases of the Brain, Spinal Marrow, Nerves, and Senses ...	68	42	27	137	1168
5. Diseases of the Heart and Blood-vessels	3	35	16	54	341
6. Diseases of the Lungs and of the other Organs of Respiration ...	115	54	73	242	1476
7. Diseases of the Stomach, Liver, and other Organs of Digestion...	31	32	11	74	584
8. Diseases of the Kidneys, etc. ...	...	9	8	17	109
9. Childbirth, Diseases of the Uterus ...	...	13	1	14	109
10. Rheumatism, Diseases of the Bones, Joints, etc.	4	5	2	11	90
11. Diseases of the Skin, Cellular Tissue, etc.	...	...	1	1	12
12. Malformations	5	1	...	6	20
13. Premature Birth and Debility ...	21	1	...	22	186
14. Atrophy	27	1	11	39	174
15. Age	...	...	43	43	501
16. Sudden	...	1	3	4	109
17. Violence, Privation, Cold, and Intemperance	11	6	5	22	221
CAUSES NOT SPECIFIED	2	...	1	17	75

TO CORRESPONDENTS.

M. D. (Trinity College, Dublin.)—Officious interference in a case under the care of another practitioner, is strongly to be condemned. No insinuations should be made concerning the patient; no unnecessary hints are to be given as to the nature or treatment of his disorder; nor any selfish and ungentlemanly conduct pursued, that can in any way tend—directly or indirectly—to diminish the trust in the physician or surgeon employed.

Dr. H. Johnson.—We shall be happy to receive the document mentioned.

Dr. Jenner's proof reached us too late for insertion in our present Number.

One who has Dearly Purchased his Experience of Quacks is thanked for his communication. The knave who has duped him is not, and never has been, a qualified physician; his titles are as worthless as his dishonesty is gross.

Students.—In those days tumours were termed "cancerous" which in reality were not so. Consequently, the published accounts of the successful removal of such growths cannot be depended upon.

A Sanitory Reformer.—We believe that a proposal has been made by the "Great London Drainage Company" to remove all the sewage of this Metropolis, by means of two tunnels, one placed on the north, and one on the south side of the Thames, thus relieving our river of the pollution daily poured into it.

W. M. S. (Cumberland.)—In an adult male European, the weight of the brain varies from 3lb. 2oz. to 4lb. 6oz. troy. The brain of Cuvier weighed 4lb. 11oz. 4 dr. 30 gr., and that of Dupuytren 4lb. 10oz. troy. The female brain is generally lighter than that of the male; it varies between 2lb. 8oz. and 3lb. 1oz. Tiedemann states that he never found a female brain that weighed 4lb.

Henry W. Chater.—A complete course of Lectures on Pathological Anatomy is now given at some—if not at most—of our best medical schools.

A Member of the Pathological Society.—We are informed by Dr. Tanner, that the ovarian tumour shown at the Pathological Society was removed from a patient after death. The removal of the tumour during life was not attempted, as it was diagnosed that adhesions had formed between the surface of the tumour and the peritoneum, and because it was also thought that there was malignant disease. The *post mortem* examination proved the truth of these conjectures, and consequently showed that Dr. Tanner was right in not assenting to the poor woman's wish that ovariotomy should be had recourse to. The disease ran its course in a little more than twenty months.

A Country Practitioner.—We have employed the Cotyledon Umbilicus in cases of epilepsy without any good effect resulting. Our experience, however, has not been very great, and, as it acts as a tonic, you can certainly do no harm by trying it on your patient.

M.R.C.S.E., &c.—We no more believe in the occurrence of spontaneous combustion than we believe in clairvoyance, spirit-rapping, or the "table-movings" now becoming the fashionable delusion. Surely all sane members of the Royal College of Surgeons, including our Correspondent, agree with us.

A Subscriber and Admirer.—Three cases of excision of the knee-joint have been performed at the Institution referred to. Two proved fatal shortly after the operation; the third case is still in the Hospital, and can, therefore, doubtless be seen by you, on expressing a wish to this effect to the House Surgeon. You will then be enabled, in some measure, to form your own unbiased opinion of the propriety of resorting to resection of the knee-joint. Should you afterwards contemplate performing this operation, be kind enough to communicate with us before doing so.

The Reports of the Pathological Society and Medical Society of London are unavoidably postponed, owing to the crowded state of our columns. These reports will, however, duly appear in future Numbers.

Quæsitor says: "Will you inform me what would be about the expense of a Naval Assistant-Surgeon's outfit (including instruments)?" In order to answer this question, we left Princes-street at an early hour, and, after a short walk, entered a tempting-looking establishment, the windows of which were filled with the most becoming naval and military costumes, not to mention several portraits of unknown heroes, with full-sized epaulettes and telescopes. Passing through the glazed mahogany portals, we timidly—and with the guilty consciousness that we were going to ask the price of goods without buying them—repeated the words of our correspondent, and had no sooner done so, than we were unexpectedly pounced upon by a powerful gentleman of the Jewish persuasion, and, by our leave or against our leave, forced into a back parlour. To narrate the conversation that here took place, would almost fill this Journal; suffice it to say, that on ultimately escaping and reaching the open air, a confused idea seemed to remain upon our mind, that we had ordered innumerable sheets, table-cloths, dinner-napkins, body-linen of all kinds, clothing for the North Pole, clothing for the South Pole, dress suits, undress suits, cabin furniture, amputating cases, telescopes, revolving pistols, and several swords. Whether we were to be indebted to the Hebrew clothier and outfitter for £70, or £90, or £120, or even for £150, ("the linen being very fine,") we could not say; but we certainly thought, that, if our friend "Quæsitor" should be but half as disgusted with the naval service as we were with naval outfits, he would have anything but a happy time of it.

Philo-Chirurgus.—A full report of the late meeting of the Medical and Chirurgical Society will appear in our next Number.

A Lover of Truth should have sent his name. We offer no opinion upon the merits of the case, but we cannot allow Mr. Ince to be assailed by an anonymous correspondent.

The letter of *Fiat Justitia Ruat Cœlum* has been received, and shall receive our consideration. With regard to the request conveyed in the same gentleman's private communication, we regret to be obliged to refuse complying with his request; not that on the present occasion we should do any harm by granting it, but we fear that by doing so we should be forming a very dangerous precedent.

COMMUNICATIONS have been received from—

Dr. SEATON, Sloane-street; J. TOYNBEE, Esq.; FIAT JUSTITIA RUAT CŒLUM; J. A. HINGESTON, Esq., Brighton; THE UNIVERSITY OF LONDON; Dr. MORIARTY, Dieppe; G. M. DAVIS, Esq., Liverpool; Dr. JELF, King's College; GEORGE MILLER, Esq., Glasgow; M. R.; A LOVER OF TRUTH; Dr. BURROWS, St. Bartholomew's Hospital; Dr, LOWES, Gosport; J. MAXWELL MASTERS, Esq.

ORIGINAL LECTURES.

LECTURES
ON THE ACUTE SPECIFIC DISEASES.

BEING THE GULSTONIAN LECTURES.

DELIVERED AT

The Royal College of Physicians.

By WILLIAM JENNER, M.D. Lond., F.R.C.P.

Professor of Pathological Anatomy, University College; Physician to the Hospital for Sick Children, etc.

Lecture III.

[Concluded from page 417.]

PYOGENIC FEVER.

Acute purulent diathesis; or, as I would rather call it, *pyogenic fever;* or, to distinguish it from the specific fevers, *simple pyogenic fever.*

Immediately after the termination of the acute specific diseases, it is by no means uncommon for one or two small abscesses to form in the subcutaneous cellular tissue. A frequent seat of these collections of purulent-looking fluid is the subcutaneous cellular tissue of the scalp. More or less febrile disturbance may precede or accompany their development. Although more common, perhaps, in the situation referred to than elsewhere, they are by no means limited to it. Sometimes, instead of two or three, the number of these collections of purulent-looking fluid is considerable. If small, their contents may be absorbed; but this rarely happens if their size exceeds that of a walnut.

The signs of inflammation that precede the formation of the pus are usually of the most trivial kind, the patient's knowledge of the existence of the local ailment being first derived from the presence of the swelling; the physician at the same time observes fluctuation. Sometimes, however, the signs of inflammation are more manifest, and, while pus is formed more or less rapidly at some spots, at others the inflammatory signs disappear, and neither before nor after their disappearance is any evidence of the presence of pus to be detected. The local lesion is limited to the first stage.

These disseminated abscesses in the subcutaneous tissue after or during the progress of the acute specific diseases, are allowed pretty generally to have their origin in a diseased condition of the blood; only, by some they are held to be critical, the evacuants of peccant matter: while by others they are regarded merely as local inflammations, excited by a diseased condition of the blood,—a diseased condition which gives to the local inflammation it excites a tendency to terminate in the exudation of a blastema susceptible only of evolution into an albuminous fluid and cells of low organisation.(a) The exudation of a blastema possessing the same properties in so many places at the same time, is held to indicate the existence of a definitely diseased condition of the fluid from which that blastema is formed, just as the deposit of many masses of cancer blastema in the same body at the same time, is held to indicate the existence of a definite disease of the blood in the person who is the seat of them. The idea that these subcutaneous collections of purulent-looking fluid of small size, and the formation of which is attended with little constitutional disturbance, are due to any foreign solid matter, be it pus globules or any other, circulating in the blood, has never, so far as I know, been advanced: it would be too untenable to be entertained for an instant. But, instead of being attended by little constitutional disturbance, as in the cases to which I have just referred, we now and then find that great constitutional derangement precedes and accompanies the establishment of the suppurative action,—that, instead of being situated in the cellular tissue immediately under the skin, the collections of purulent-looking fluid are formed in cellular tissue more deeply seated. Again, in other cases, we find that they are not limited to the cellular tissue, but that the pus blastema is exuded into the joints; and yet further, that it is in rare cases disseminated in masses through the viscera of the chest and abdomen. Now, the transition from the first to the last described state is by most insensible gradations; the circumstances under which all occur are the same; and, if it be granted that the first arises from a definitely diseased state of the blood or system generally, I see not on what ground it can be argued, that the others, which differ only in the more wide diffusion of the local affections, may not also depend on the same diseased state of the blood. This disease seems very closely allied to that condition of the blood in which purulent discharges issue at the same time from several of the mucous membranes after some of the acute specific fevers, and to that chronic state in which every scratch or abrasion "festers," as the vulgar say. The existence of this condition of the blood or system generally, as a substantive disease, appears to have been in modern times first recognised by Tessier, in 1838. He, however, associated with it the cases in which disseminated abscesses are excited by the circulation of foreign matter in the blood. Tessier described the state referred to as a new pathological genus, under the name of the "purulent diathesis;" and he defined it to be a modification of the organism characterised by a tendency to suppuration in the solids and coagulable fluids.

Amid much pathologically erroneous, the doctrine of Tessier appears to contain an important truth, viz., that in a certain number of cases of disseminated abscesses the febrile disturbance is established before any local disease is set up, and, consequently, before any pus is formed, and by inference, that the abscesses are, in such cases, merely the effects of a special alteration of the element from which that blastema is exuded out of which they are developed.

Although the morbid condition of the blood, which is thus manifested by its effects, is common as a consequence of the acute specific diseases, it sometimes arises without having been preceded by any other disease, *i.e.*, as a primary substantive affection.

Of this, the following case appears to me to offer some evidence:—

A man, aged 31 years, of temperate habits, and usually enjoying health, after feeling generally poorly for two or three days, became decidedly ill July 23rd. The symptoms were—heat of skin, headache, a furred tongue, and disinclination for all exertion. On the evening of the 24th, a red patch appeared on the outer aspect of either leg. On the 25th, there was induration of the same patches. On the 26th, there was redness of the left shoulder, and a red, indurated, elevated patch on the outer aspect of the left upper arm.

The mind was now confused.

He came under my care in University College Hospital on the 28th. At that time his mind was confused, and occasionally wandered. His movements were rather tremulous, and there were now and then some twitchings of the muscles of the face. He was rather restless, and slept but little. There was no headache. The complexion was thick, and rather sallow. The tongue moist and red at the tip and edges, and on its dorsum was a little dirty fur. The abdomen was rather full and resonant, but not tender. He passed, during twenty-four hours, one stool. The pulse was 96, moderately full, but rather weak. The heart's sounds were natural. Red patches,—the redness gradually shading into the hue of the surrounding skin, some indurated, others not,—were seated on the outer aspect of the right thigh, the calf of the left leg, the anterior aspect of the left tibia, the inner and anterior aspect of the right upper arm, and the centre of the right deltoid.

The whole surface was carefully inspected. There was not the slightest trace of suppuration at any spot; no redness nor tenderness in the course of any of the veins in the vicinity of the red spots, nor, so far as could be ascertained, elsewhere.

There was no cough. The respirations were 24 in the minute.

Time will not permit me to detail the daily notes of the case. Suffice it to say, that many other red patches appeared at various parts of upper and lower extremities,—that pus was evacuated from two seated on the anterior aspect of one tibia,—that fluid was effused into the knee-joints, and probably into one ankle-joint,—and that at no

(a) The cells found in the purulent-looking fluid are spherical, and about the size of pus corpuscles; as a rule, they have no nucleus, but contain only granules, composed partly of fat and partly of protein matter. The number of the granules varies; so that the corpuscles may be identical in appearance with the pyoid corpuscles of Lebert, or they may have in their interior so many granules as to resemble the ordinary granular corpuscle. Sometimes, however, the majority of the cells contain a single nucleus; and, now and then, pus corpuscles, with two, three, or four nuclei, are found to constitute the bulk of the cells.

time was there reason to believe that any internal organ was the seat of purulent deposits. The patient recovered completely at the expiration of about a month from the first symptoms of illness.

The following is the abstract of a case of this disease, which occurred subsequently to measles:—

A boy, aged 4½ years, was admitted, under my care, into the fever ward of the hospital for sick children, in August last.

About a week after the disappearance of the rash of measles, the child never having been free from symptoms of illness, the wrists were observed to be swollen; then an abscess formed in the subcutaneous tissue of the back. Subsequently, collections of pus formed on the dorsum of the right hand, over the right wrist, in and over the left elbow-joint, under the right glutæus maximus, in the cellular tissue about the right psoas, and in the left hip-joint; and there were purulent discharges from the ears. He died about five weeks after the swelling of the wrists commenced.

No purulent fluid was found in any internal organ. The examination of the body was made by my friend, Dr. Ballard.

In these cases, as in *the majority of those belonging to the same order, the subcutaneous tissue and joints were exclusively the seats of the collections of purulent fluid.* In some such cases, however, abscesses are found in the lungs; but then they are generally small in size, few in number, and in a much less advanced state than those in the parts I have just mentioned; while it will be remembered, that when foreign solid matters, as pus corpuscles, &c., are thrown by the experimentalist into the venous current, it is the lungs which are alone affected in a large majority of cases; and when other parts suffer, the lungs are still the most extensively diseased.

Sedillot supports his doctrine, that the circulation of pus corpuscles with the blood is the sole cause of disseminated abscesses, by four orders of proof:—

1st. By the invariable pre-existence of a centre of suppurative action.

In the class of cases to which I am referring there is no pre-existing abscess or ulcer.

2nd. By the relation observed between the formation of pus in the veins, the passage of that liquid into the blood, and the development of pyæmia.

Of this relation there is no evidence in the class of cases of which I am speaking.

3rd. By the presence of pus in the blood, verified by observation.

There is no pus to be detected in the blood in those cases which I would class together under the name of pyogenic fever. Of this, repeated examinations enable me to speak with confidence.

4th. By the results obtained by the injection of pus into the veins of animals.

Now, as the symptoms and the *situation* of the disseminated abscesses are different in cases of pyogenic fever, and artificially induced pyæmia, it is improbable that the disseminated abscesses in the two have their origin in the same cause. And as the disseminated abscesses, artificially produced by Sedillot, were undoubtedly the effect of the circulation of pus with the blood, it is the more unlikely that the disseminated abscesses, in the class of cases I am describing, are the effects of the circulation of pus with the blood.

Thus, then, tested by Sedillot's four orders of proof, there are cases of multiple, or disseminated abscesses, which are not, or which cannot be proved to be directly or indirectly excited by the entrance of pus into the blood.

The acute specific disease, with which especially the acute purulent diathesis, or pyogenic fever, may be confounded, is, especially, typhus fever. From this it is distinguished by the activity of the febrile symptoms at the outset, the early delirium, the absence of eruption, and the rapid formation of the numerous centres of suppurative action.

Pathologically, the affinity of this disease seems to be with erysipelas.

I ought not to quit this subject without stating, that, although I have spoken only of the two varieties of the acute purulent diathesis, which especially fall under the cognizance of the physician, viz., that which follows the acute specific diseases, and that which arises as a primary affection, yet Tessier considers, that phlebitis, phlegmonous erysipelas, and internal abscesses following operations, are consequences of this same general condition. The questions here raised are foreign to the object of these discourses.

ACUTE TUBERCULOSIS.

The third disease of this class, often confounded with typhus and typhoid fever, but especially with the latter, is acute tuberculosis; and, in many cases, the diagnosis, from the all but identity of the symptoms, is most difficult.

Like typhoid fever, acute tuberculosis rarely affects persons after the middle period of life.

The cases of acute tuberculosis I have myself mistaken for typhoid fever, or which I have seen others mistake for that disease, have assumed one of three forms—the insidious, the active febrile, and the adynamic.

The first form occurs almost exclusively in children; the patient, often after measles, or scarlet fever, but not unfrequently without known cause, is observed to be languid; unwilling to make any exertion; complains of headache; lies about; seeks quiet, leaving its companions; is heavy, dull, or irritable in temper; the skin is hot and dry; the pulse frequent; the tongue moist, and slightly furred; the appetite lost, or variable; the bowels confined, or irregular; the stools more or less clay-like, putty-like, or party-coloured; the abdomen free from tenderness, and of its normal form; there is trifling cough, and a little sonorous and sibilous râle, or the respiratory murmur is simply rough or harsh, and the expiration rather loud and prolonged, or, it may be, perfectly natural. Some time usually elapses before advice is sought, so indefinite are the symptoms of the illness; and, after it is sought, the physician is occasionally some time in attendance before the gravity of the affection is comprehended; for the febrile symptoms often remit during the day, the skin being little above its natural temperature, and the pulse only a little quicker than natural, when he makes his visit. Thus the disease proceeds for two, three, or four weeks, when the functions of some one organ become disturbed in an extreme degree, and the patient dies with all the symptoms of acute hydrocephalus, tubercular meningitis, bronchitis, pneumonia, or peritonitis.

After death, in such a case, grey granulations, or yellow tubercles, are found in many organs; only, in the particular organ from the disorder of which the patient died, in addition to grey granulations, great vascularity, or the products, more or less abundant, of inflammation, serosity, lymph, or pus, are discovered.

In the active febrile form, the symptoms are, from the outset severe, the pulse is quick, and the heat of skin considerable, and the patient, from an early period of the disease, confined to bed.

In the third or adynamic form, the illness begins somewhat suddenly, after a trifling sense of *malaise* of a few days' duration. The symptoms are, chilliness, hot skin, frequent pulse, moist, furred tongue, headache, loss of appetite, confined bowels, vomiting, considerable sense of weakness, great unwillingness to be disturbed, with irritability of temper. After a week or ten days, the mind wanders occasionally, the bowels are generally confined, and the abdomen flat or concave; though the former are sometimes relaxed, and the latter full. The skin continues hot, dry, and harsh; the tongue becomes dry and brown; sordes collect about the teeth; prostration is extreme, and the patient sinks about three or four weeks after the outset of the disease. The two last described forms of acute tuberculosis are seen occasionally in the adult; but, in them, the recent deposit of tubercle, the newly-formed grey granulations, are almost always limited to one or two organs; in the cases that have fallen under my own observation, the pia mater, or the lungs, or both. Under these circumstances, more or less marked disturbances of the functions of the lungs or brain are observed. At the same time, the general symptoms may be either those of the active febrile, or of the adynamic variety. In the *former* case, the disease may be mistaken for idiopathic inflammation, and the general symptoms be regarded as symptomatic; in the *latter* case, the disease may be thought to be typhoid fever.

The diagnosis from typhoid fever, when the granulations occupy the pia mater, is formed *positively* from the frequency of the vomiting, the severity of the headache, and its continuance after the patient is delirious, the knitting of the brows, the frequent sighing, the dislike to light, the occasional and transient general flushings of the face, the slowness of the pulse, and the evidence of paralysis. So long as it is very imperfect, the paralysis may escape observation, unless

especially looked for. It is manifested thus:—Sometimes one pupil contracts rather less completely or less actively than the other, when exposed to a strong light. Sometimes there is slight deviation of the tongue. Sometimes the uvula is drawn to one side, and the opposite half of the velum pendulum palati drops. Sometimes one radial artery(a) is felt to be a little larger than the other, such differences not being natural to the patient. This last evidence of paralysis will occasionally precede any appreciable loss of voluntary muscular power.

There is this seeming peculiarity about these imperfect paralyses in the disease in question, viz., that when observed on the one side on any given day, on the following day the opposite side may be found to be the diseased side. This shifting of the disease is—in many cases, at least—rather apparent than real; thus, the paralysis of the right side we will suppose to be very imperfect, but still sufficient to cause *comparative* sluggishness of the right pupil. On the following day, the left side is the more perfectly, though still imperfectly, paralysed; then there is *comparative activity* of the right pupils.

Negatively, the adynamic form of acute tuberculosis, with deposit of grey granulations in the pia mater, is distinguished from typhoid fever by the absence of diarrhœa, of distension of the abdomen, of enlargement of the spleen, and of rose spots.

But all the positive signs may be wanting till near the close of the disease; and, on the other hand, diarrhœa, tympanitic distension of the abdomen, and enlargement of the spleen, may be present, sometimes with, sometimes without, the deposit of tubercles under the mucous membrane of the intestine, and in the spleen. As regards the rose-spots, I have never seen them in a case of acute tuberculosis. But Dr. Waller, of Prague, states, that he has observed them in cases of acute phthisis; and Rilliet and Barthez say, that very fugitive, imperfectly formed rose-spots are in rare cases present.

In reference to those cases in which the deposit of grey granulations is limited to the lungs, the positive symptoms for establishing the diagnosis are derived from the signs of oppressed breathing, the rough inspiratory murmur, with intense and prolonged expiratory murmur, and the general diffusion of these signs pretty uniformly over both lungs. Hæmoptysis occurs in some of these cases—rarely, if ever, in typhoid fever.

The affinity of acute tuberculosis with typhoid fever is shown by the general symptoms of the two being often undistinguishable, by the frequency with which particular parts are, in both, the seat of disseminated protein deposits, and by the tendency manifested in both to ulceration, not only of the mucous membranes generally, but of a part of the intestinal mucous membrane which is rarely the seat of ulceration in other diseases, viz., that covering Peyer's patches.

With reference to the close resemblance of the symptoms in some cases of local inflammation, with adynamic symptoms, and typhus fever, of acute tuberculosis and typhoid fever, of measles and scarlet fever, of typhus and typhoid fevers, I would quote the following sentence by the author of the "Philosophy of Medical Science:"—"It is very important for us to bear in mind, that great difficulties of diagnosis in individual cases are in no way incompatible with the existence of essentially and widely different diseases. Morbid affections, very unlike each other, and in most cases easily distinguishable, may, under certain circumstances, have many things in common; and their symptoms may be so mixed up with each other, as to render, in the very imperfect state of our knowledge, a positive diagnosis very difficult or impossible, and this without throwing any doubt upon the general question of the radical dissimilarity between the diseases themselves."—(Bartlett, p. 321.)

In conclusion, I may remark, that it seems to me, from the survey we have taken of the symptoms of the typical cases of the acute specific disease, of the deviations from those symptoms met with in practice, of the causes of those deviations, of the histories of epidemics of these same diseases, and of the diseases with which some of them are confounded, that, in adopting the division of them I have here advocated, and in grouping them as I have here grouped them, we avoid those errors to which I adverted at the commencement of these lectures, that we pay no homage to those idola specûs against which the voice of Bacon warned us,—that we neither divide where Nature has drawn no line, nor generalise where Nature has bestowed no unity.

(a) In several cases of hemiplegia I have observed the radial artery on the paralysed side to be larger than that on the opposite side; and, in two of these cases, no such difference in the size of the arteries existed the day before the fit.

LECTURES

ON THE

ORGANIC DISEASES AND FUNCTIONAL DISORDERS OF THE STOMACH.

By GEORGE BUDD, M.D., F.R.S.

Professor of Medicine in King's College, London.

Lecture II.

Inflammation of the Stomach—its various kinds or degrees: 1st. Inflammation excited by Undigested Food, or Alcoholic Drinks; 2ndly. Inflammation caused by more powerful Mechanical or Chemical Irritants; 3rdly. Inflammation resulting from Defective Nutriment, or from the Presence of Noxious Matters in the Blood.

Having spoken of the effects of congestion of the stomach, I have now to call your attention to those of inflammation of its lining membrane.

The term, inflammation, is generic, and, in the latitude now given to it, comprehends processes which, although they have many points in common, differ in very important particulars. Taking the case of the synovial membranes,—the inflammatory process may lead to the effusion of a watery fluid, which may be completely absorbed; or to the effusion of coagulating lymph; or to the secretion of pus: and it is observed, that the result in any individual case is mainly determined by the nature of the agent by which the inflammation is kindled. The inflammation of rheumatism leads to the effusion of a serous fluid, which, at least, does not undergo coagulation in the synovial capsule. The inflammation that results from a penetrating wound, or from the presence of pus in the blood, generally leads to the secretion of pus. But, in either case, there are many common phenomena. There is increased flow of blood to the part, and a plethora or fulness of its blood-vessels; increased heat from the increased oxidation and other chemical changes which are there going on; and unnatural swelling from the effusion of fluids, if the effused fluids cannot readily escape. Again, whatever be the cause or the result of the process, the blood undergoes the same fundamental change in its physical properties,—a change which, as M. Andral has shown, is mainly dependent on an increase in the proportion of its coagulable element. It is to these constant phenomena, that the generic term "inflammation" is properly applied. But, whenever the term is used, it must be recollected, that it is a generic term, and that, in speaking of any individual case, it is not enough to say, that the disease is inflammation of this or that part. To convey an exact notion of the changes that are taking place, it is necessary to specify, in some way or other, the *kind* of inflammation, either by reference to the cause of the inflammation, as by saying, that it is *rheumatic* inflammation, or *gouty* inflammation, or *syphilitic* inflammation, or *erysipelatous* inflammation; or, if the cause be unknown, by reference to the nature of the fluids effused, as by saying, that the inflammation is suppurative or adhesive.

The matters effused in inflammation vary not only with the nature of the agent by which the inflammation is kindled, but also according to the tisues inflamed. The inflammation of the joints which occurs in rheumatic fever leads to the effusion of a fluid which does not coagulate, and which is, in most cases, readily absorbed, so that no permanent damage results. The inflammation of the pericardium and of the valves of the heart, which so frequently co-exists with the inflammation of the joints, and which is, doubtless, excited by the same agent, leads to the effusion

of coagulable lymph, and produces lasting, and often fatal, changes of structure.

The inflammation of a mucous membrane may lead, according to the kind of inflammation—1st. To the secretion of viscid, or opaque, or otherwise altered mucus; 2nd. To the effusion of plastic lymph, which forms a coating of the membrane; 3rd. To the formation of pus: but, whatever be the character of the matter effused, no permanent mischief need follow. The morbid product is poured out on the open surface of the membrane, and is cast off; and, when the process of inflammation is ended, the membrane may be restored to its original condition.

The various results of inflammation in mucous membranes are best studied in the air tubes, because the several kinds or degrees of inflammation I have just referred to are common in them, and are readily distinguished, from the circumstance, that the secretions from the inflamed membrane are spit up, unmixed with other matter, and may likewise be found, unchanged, choking the tubes in the dead body. But with regard to the stomach, the case is widely different. If any part of the mucous membrane of the stomach be inflamed, the matters secreted by this part are mingled with the secretions of other parts, and also with the food which the stomach contains; and they must, besides, be speedily changed by the chemical action of the gastric juice. If, therefore, they are thrown up by vomiting, it must, in most cases, be difficult to distinguish their primary form; but if, instead of being thrown up, they pass downwards through the bowel, they must be still further altered by admixture with the bile, the pancreatic juice, and the fluids poured out by the coats of the bowel itself, as well as by the chemical changes which are there going on. It cannot, then, excite much surprise that but little has been learned respecting the inflammatory diseases of the mucous membrane of the stomach, from an inspection of the matters which the inflamed membrane secretes.

But there is another difficulty in the study of these diseases; they seldom prove fatal; so that opportunities of examining the inflamed membrane itself seldom occur. Inflammation of the air-tubes not unfrequently destroys life, not by the constitutional disturbance which the process of inflammation excites, but by the mere mechanical effect of the secretion which blocks up the smaller tubes, and thus suffocates the patient.

Secretions from the mucous membrane of the stomach cause no mechanical obstruction of this kind, so that inflammation of it seldom proves fatal. After a time, the inflammation subsides, and leaves no trace behind.

Again, when death does occur during the active stage of the process, the marks of this process are much less certain than in inflammatory diseases of the air-tubes. The secretions are changed by mixture with what else there may happen to be in the stomach; and a softening, or destruction of the mucous membrane, which, in the air-tubes, would at once be ascribed to disease, may here have occurred after death, from the chemical action of the gastric juice, or of the other matters which the stomach contains.

For all these reasons, our knowledge of the inflammatory diseases of the mucous membrane of the stomach is extremely vague.

One of the simplest forms of inflammation of the mucous membrane of the stomach, as well as one of the most frequent, is that brought on by excess in eating or drinking. Much has been added to our knowledge on this subject by the observations of Dr. Beaumont on Alexis St. Martin, who, in consequence of a gun-shot wound, had a permanent fistulous opening through the abdominal parietes into the stomach, thus affording Dr. Beaumont the rare opportunity of *seeing* much of what took place in the stomach during the process of digestion.

Dr. Beaumont found, that whenever St. Martin ate heartily of substances hard of digestion, for some days in succession, an inflammatory state of the mucous membrane of the stomach resulted. The membrane exhibited aphthous patches and red spots, from which small drops of blood sometimes exuded. It secreted very little proper gastric juice, but a considerable quantity of ropy mucus, which became yellowish, or muco-purulent, when the inflammation was more than commonly severe.

This condition of the stomach caused slowness of digestion, so that food sometimes remained in the stomach undigested for twenty-four, or forty-eight hours, or even longer. It caused, also, slight tenderness at the pit of the stomach, and a thin white coat on the tongue, but very little constitutional disturbance. Under the influence of low diet and cooling drinks, the inflammation very speedily subsided, and the membrane regained the appearance of health.

These effects are illustrated by the following experiment by Dr. Beaumont, on Alexis:—

On the 7th of December, Alexis had some symptoms of gastric derangement, and the mucous membrane of the stomach exhibited small aphthous patches.

At 9 o'clock in the morning of the 8th December, he finished breakfasting on fried sausage, dry toast, and a pint of coffee. At half-past 10, the stomach was full of fluids, and its mucous coat was red and irritable, inclining to dryness. There was a thin whitish coat on the tongue, and a similar appearance on the protruded portion of the stomach. At a quarter before 12,—that is, at the end of nearly three hours,—the stomach was still full, and rancid oil floated on the top of its contents.

At a quarter before three on the same day, Dr. Beaumont placed in the stomach, suspended on a string, a roasted oyster, that weighed, when raw, four drachms; and Alexis ate twelve others of about the same size.

At half-past 4, the oyster on the string was not half-digested, and Alexis complained of headache, lassitude, dull pains in the left side and across the breast. The tongue was furred with a thin yellowish coat, and inclined to dryness. The eyes were heavy and the countenance was sallow. The mucous membrane of the protruded portions of the stomach, according to Dr. Beaumont, very much resembled the appearance of the tongue, with small aphthous patches in several places, quite irritable and tender.

Dr. Beaumont then suspended his observations, and, at night, dropped into the aperture six grains of blue pill and four common-sized aloetic pills, and sprinkled on the exposed surface of the stomach five or six grains of calomel.

The medicine operated early the next morning, relieved the symptoms of indisposition, changed the appearance of the stomach and tongue, and removed the aphthæ.

On the 9th, that is, the day after the experiments were made, Alexis felt quite well, and the coats of the stomach looked healthy again.

The rapid recovery in such cases is owing to the active nutrition of the mucous membrane. In consequence of this active nutrition, the effects of inflammation of the mucous membrane of the stomach are much more transient than those of inflammation of the mucous membrane of the air-tubes, or of the urinary bladder, or of the urethra, or even of the intestines.

The mucous membrane of the air-tubes, or of the urethra, or of the urinary bladder, wastes but little, and is slowly renewed. If it be much injured, the process of repair is long.

The mucous membrane of the stomach, on the contrary, has an active function. Its epithelium is frequently shed to effect digestion, and is rapidly renewed; and, in consequence, the superficial inflammation of it we are considering is very transient.

The erythematous inflammation of the stomach, in the instance I have just cited from Dr. Beaumont, was brought on by eating fried sausages and roasted oysters. The effect which these, or any other unwholesome articles of food, have on the stomach, of course depends greatly on the previous state of the stomach and of the general health. What at one time is readily digested and does no harm, at another time is digested very slowly, and frets and inflames the stomach. Food which, under ordinary circumstances, is most wholesome, may thus inflame the stomach, if, by an impediment to the passage of the blood through the liver or the chest, or by a state of fever, or by nervous exhaustion, or by previous excesses, the gastric juice is, for the time, diminished.

The stomach may be inflamed by alcoholic drinks, just as it is by unwholesome food. This was repeatedly seen by Dr. Beaumont in his observations on St. Martin. The following passages are very instructive on this point:—

"July 28th, 9 o'clock a.m.; weather clear; wind N.W., brisk; thermometer 66°; stomach empty; not healthy; some erythema and aphthous patches on the mucous surface. St. Martin has been *drinking ardent spirits, pretty freely, for eight or ten days past;* complains of no pain, nor shows symptoms of any general indisposition; says he feels well, and has a good appetite.

"August 1st, 8 o'clock a.m.—Examined stomach before eating anything; inner membrane morbid; considerable erythema, and some aphthous patches on the exposed surface; secretions vitiated. Extracted about half an ounce of gastric juice; not clear and pure as in health; quite viscid.

"2nd, 8 o'clock, a.m.—Circumstances and appearances very similiar to those of yesterday morning. Extracted one ounce of gastric fluids, consisting of unusual proportions of vitiated mucus, saliva, and some bile, tinged slightly with blood, appearing to exude from the surface of the erythema, and aphthous patches, which were tenderer and more irritable than usual. St. Martin complains of no sense of pain, symptoms of indisposition, or even of impaired appetite: temperature of stomach 101°.

"3rd, 7 o'clock, a.m.—Inner membrane of stomach unusually morbid; the erythematous appearance more extensive, and spots more livid than usual, from the surface of some of which exuded small drops of grumous blood; the aphthous patches larger, and more numerous; the mucous covering thicker than common, and the gastric secretions much more vitiated. The gastric fluids extracted this morning were mixed with a large proportion of thick ropy mucus, and considerable muco-purulent matter, slightly tinged with blood, resembling the discharge from the bowels in some cases of chronic dysentery. Notwithstanding this diseased appearance of the stomach, no very essential aberration of its functions was manifested. St. Martin complains of no symptoms indicating any general derangement of the system, except an uneasy sensation, and a tenderness at the pit of the stomach, and some vertigo, with dimness and yellowness of vision on stooping down and rising again; has a thin, yellowish-brown coat, on his tongue, and his countenance is rather sallow; pulse uniform and regular; appetite good; rests quietly, and sleeps as well as usual.

"4th, 8 o'clock a.m.—Stomach empty; less of those aphthous patches than yesterday; erythematous appearance more extensively diffused over the inner coats, and the surface inclined to bleed; secretions vitiated. Extracted about an ounce of gastric fluids, consisting of ropy mucus, some bile, and less of the muco-purulent matter than yesterday; flavour peculiarly fetid and disagreeable; alkalescent and insipid; no perceptible acid; appetite good; rests well, and no indications of general disease or indisposition.

"5th, 8 o'clock a.m. — Stomach empty; coats less morbid than yesterday; apthous patches mostly disappeared; mucous surface more uniform, soft, and nearly of the natural healthy colour; secretions less vitiated. Extracted two ounces of gastric juice, more clear and pure than that taken for four or five days last past, and slightly acid; but containing a larger proportion of mucus, and more opaque than usual in a healthy condition.

"6th, 8 o'clock a.m.—Stomach empty; coats clean and healthy as usual; secretions less vitiated. Extracted two ounces of gastric juice, of more natural and healthy appearance, with the usual gastric acid flavour; complains of no uneasy sensations, or the slightest symptom of indisposition; says he feels perfectly well, and has a voracious appetite; but not permitted to indulge it to satiety. He has been restricted from full, and confined to low diet and simple diluent drinks for the last few days, and has not been allowed to taste of any stimulating liquors, or to indulge in excesses of any kind."

In this instance, the inflammation of the stomach was caused by *ardent* spirits. The effect which these have on the stomach depends greatly on their state of dilution. The more they are diluted, the more readily are they absorbed, and the less they irritate and inflame the stomach. It has long been known that *spirit*-drinkers are the especial victims of cirrhosis, which has, in consequence, been called, in this city, "the gin-drinker's liver;" and it has been very generally supposed, that distilled, or ardent spirits, hurt the stomach more than fermented liquors, even when the spirits are diluted with water, so as to be of the same strength. But, in wine and malt liquors, the alcohol exists in a state of mere admixture with their other constituents, and there can be little doubt, therefore, that the more injurious effects of ardent spirits depend mainly on the circumstance, that the victims of spirit-drinking not only drink large quantities of spirits, but often drink them "neat," and on an empty stomach. In wine and beer the alcohol is already largely diluted, and the beverages, when drunk to excess, are usually drunk at, or soon after, meals, when the alcohol is still further diluted by admixture with the contents of the stomach.

The effect of spirits on the coats of the stomach, like that of food which is hard of digestion, depends greatly on the previous state of the stomach, and of the general health, as well as on season and climate. Spirits hurt the stomach more when its mucous coat is already inflamed, or when, from an impediment to the passage of the blood through the liver or the chest, or from any other cause, the vessels of the stomach are congested, so that liquids are slowly absorbed from it; and in hot seasons, or hot climates. Under these circumstances, small quantities of fermented drinks may do much mischief.

In the observations I have cited from Dr. Beaumont, nothing is more striking than the rapidity with which the stomach recovered, under the influence of low diet and cooling drinks. Without this power of rapid recovery, the stomach would be unfit for its office. If the erythematous inflammation, which is excited by unwholesome food, or by excess in eating or drinking, took long to subside, the abstinence required for recovery could hardly be borne.

The inflammation, instead of subsiding rapidly, may, however, be kept up by repeated indiscretion in eating or drinking. Small quantities of solid food, or of fermented drinks, which, at other times, would do no harm, are sufficient to keep up a soreness that already exists.

The chronic inflammation so excited is attended with an increased secretion of mucus, and causes a thickening, and the so-called mammillated appearance, and occasionally, I believe, minute superficial ulcers of the mucous membrane. Its most characteristic symptoms are, constant slight tenderness at the epigastrium, slowness of digestion, pain or uneasiness in the stomach, and occasional vomiting, after meals, especially after meals of solid food, and a white and furred tongue. The matter vomited contains viscid mucus, which, now and then, presents a few streaks of blood, more or less altered. The disorder, even after it has lasted a considerable time, generally disappears readily if the stomach be allowed sufficient intervals of rest, or the patient be restricted to cooling drinks, and a diet consisting entirely of farinaceous substances and milk.

A superficial, or erythematous, inflammation of this kind occurs, not only as a disease by itself in persons otherwise healthy, but also very frequently in the course of various other inflammatory or febrile diseases, when the food has not been brought down to the diminished power of the stomach. Under such circumstances, the inflammation of the stomach is more difficult to recognise, from its symptoms being complicated, or masked, by those of the primary disease. It is thus often overlooked, and much mischief is in consequence done by the unseasonable use of stimulants.

Chronic inflammation of the kind we are now considering sometimes results, not from the digestive powers of the stomach being overtaxed, but from the existence of some impediment to the passage of the digested food from the stomach into the intestine. When, for example, a simple deep ulcer exists near the pyloric end of the stomach, interfering with the action of its muscular fibres, or when the pyloric orifice is slightly strictured, or is pressed upon by a large liver, the stomach cannot always completely empty itself, and what remains in it, after digestion is over, frets and inflames its mucous coat. As the inflammation, in such cases, results from an abiding condition, it is difficult to remedy, and thus, occasionally, leads to habitual vomiting of ropy mucus. This happened in a woman who died, a few years ago, in King's College Hospital, from the effects of a large simple ulcer near the pyloric end of the stomach. Much ropy mucus was vomited for a long time before death, leading to the suspicion of cancer of the stomach, and, after death, ropy mucus of the same kind, hard to detach, was found coating almost the whole surface of the mucous membrane.

In the same way, if the urinary-bladder, or the gall-bladder, cannot completely empty itself, the retained urine or bile, decomposes, or becomes too highly concentrated, and consequently frets and inflames the mucous membrane. Inflammation of the mucous membrane of the stomach would be caused in this way much more frequently if the contents of the stomach could not be discharged by vomiting. The stomach has, fortunately, two outlets for the escape of irritating matters.

[To be continued.]

ORIGINAL COMMUNICATIONS.

SOME GENERAL OBSERVATIONS ON FATTY DEGENERATION.

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[Continued from page 88.]

Part IV.

Taking the manifest order of anatomy, I should have shown *the relation between degeneration of the larger arteries and sanguineous apoplexy*, before insisting on the changes of the smaller ones in reference thereto; but I have proceeded from branch to trunk, from my mind being fixed on the more usual forms of cerebral hæmorrhage, it being rare to *find* a rupture of any considerable vessel, either without or within the brain, in explanation of the cause of the effusion. But, before directly adverting to those states of the great cerebral arteries which give rise to aneurism or rupture, it will be necessary to make a few observations on the "atheroma" of arteries in general.

With the obvious exception of the arcus senilis, which, from being observed so readily during life, and especially where the irides are darkly coloured, is by far the most frequently noticed form of degeneration, the atheromatous destruction of arteries is the most generally discovered form of decay. Yet, as Hasse takes good occasion to observe, "its pathological import has been but little attended to," for, although it has been associated by so many observers with the obstruction, yielding, and bursting of vessels, its relation to the condition of the smaller blood-channels and tissues around, its wide bearing on definite existence, and the question of general and local decay, nay, even its nature, have been loosely explored.

Recent inquiry is, however, apologising for defects of the past, and this degeneration is taking due rank in pathology. Its appearances, as noted by the eye alone, need hardly occupy us; and we may pass on to some points which the microscope has shown in respect of its minute or real anatomy.

Atheroma is a word of complex signification; it is used often to denote a confused mingling of unlike changes, and employed yet more commonly where the precise kinds and degrees of alteration entirely pass by without examination. It has been resorted to by writers where the vessels ramifying in the brain have ruptured, where the heart, with its coronary artery narrowed, has burst, where one or more aneurisms, internal or external, have been discovered, and with not less gravity than could have been assumed by a perfect knowledge of the states it signified. We are indebted to Mr. Gulliver for showing that fatty degeneration is a large part, often, of that which, as a whole, may be called atheromatous.(a) He has discovered in atheromatous matter oil-globules of varying size, number, and form of distribution, earthy concretions, and crystals of cholesterine; and margarine and oleine have been extracted from it by Dr. Davy and himself.(b) So many observers have been able to confirm the correctness of the figures given by this inquirer of the atheromatous material, that it is needless to say that I have seen what were faithful repetitions of the appearances. It must be observed, that atheromatous degeneration varies extremely, according to its stage, and according, also, to the various results of arterial atrophy in different persons. Sometimes fat globules largely predominate, at others calcareous particles. The coronary artery of a woman who died having three aneurisms, seemed affected, all but exclusively, by fatty degeneration.(a) But in speaking of degeneration as seen only by the naked eye, it is always better to call it atheromatous, for this epithet pledges to nothing exact, and may be used whether there be fatty or earthy particles, or an abundance of both, mingled with cholesterine and albuminous molecules.

The peculiar depositions *upon* the inner coat of an artery, which Hasse describes under the designation of semi-cartilaginous patches, the fibrinous or other matter which may be found lying *between* the coats themselves, and the atrophy and destruction of the vascular structures, must be regarded separately. Whatever the character of the change may be in various cases, atheroma itself is always connected with a state of atrophy. It is often associated with a pretty general decay of organs; and, like fatty degeneration of the heart, it may be produced through the spanæmia and mal-assimilation so apt to be dependent on chronic and exhausting maladies. The author of the unrivalled work on phthisis mentions, that "organic lesions" of the aorta happened in a "sixth part of his cases, in subjects varying in age from thirty-five to seventy-five years."(b) But it will very often be impossible to distinguish between the atheromatous degeneration of lingering complaints, and the normal decay which is proper to old age. It is in the young and the middle-aged only that we must attempt wholly to connect the change in question with that failing nutrition which exhausting maladies are wont to entail. Often, no doubt, it is the double issue both of time and disease, as in the case of tubercle in association with old age.

Degeneration of arteries may end either in the occlusion or dilatation, the softening or hardening, of a vessel; it is of every extent(c) and degree; it may affect a trunk exclusively of the branches, or the converse, but very frequently, as may be well shown by the blood-vessels of the brain, it more or less involves the artery taken in its entire course. Common in the old, and very often to be called normal, there are not wanting instances of its happening even in the very young; some to the point are cited by Hasse, who speaks of ossification of arteries, more or less extensive, occurring at the ages of fifteen months, and of three, eight, eighteen, and twenty-four years.(d) The kind of degeneration, both in large and small blood-vessels, may perhaps be determined in some degree by the tendency of the constitution itself. What is the influence of gout, for example, in reference to this matter? It must be observed, too, that all arteries are not equally given to decay. The pulmonary artery, as pathological beginners know, is oftentimes quite healthy, when the aorta(e) from its origin to beyond its arch, is here thin and shrivelled, there ulcerated, and studded with atheroma at almost every point. Symmetrical degeneration is, as M. Bizot points out, extremely common; and the fact, interesting of itself, becomes of great moment when taken as illustrative of that general law, whereon Dr. W. Budd and Mr. Paget have so fully insisted.

It would be superfluous to enter at any length into the obvious relation between failure of nutrition and every form of arterial degeneration. Where atheroma is, atrophy has been. Fatty, calcareous, and mixed degeneration, must be connected with the conditions of the surrounding tissues and body generally. Mr. Gulliver(f) and Dr. Davy(g) both insist on there being "almost always atrophy and dis-

(a) On Fatty Degeneration of Arteries, "Medico-Chirurgical Transactions," Vol. XXVI

(b) Rokitansky, who makes a similar statement, speaks of "molecules exhibiting various degrees of consistence, from coarseness to extreme fineness, and consisting of albumen and calcareous salts."—"Pathological Anatomy," Vol. IV., p. 265. Mr. Gulliver observes, at the end of his contribution:—"Several months after the foregoing paper was read before the Society, I had an opportunity, for the first time, of consulting the excellent work on pathological anatomy by Dr. Hasse, from which the following passage has been obligingly translated for me by my friend Dr. Willis:—'Bizot often observed in it (atheromatous matter) shining bodies like gold-dust (gold-pulver); and Cruveilhier saw aggregations which resembled in all respects the plates of cholesterine of many gall-stones. These masses have been examined by Gluge, microscopically, and found to consist of aggregations of fat globules.' I have neither seen M. Gluge's work, nor the observations above referred to of M. Cruveilhier."

(a) The subject of this case was a patient in the Westminster Hospital, under the care of Mr. Phillips. Dr. Basham showed me the specimen. Hasse states that he has found atheromatous masses, "on several occasions, to consist of fat globules merely."

(b) Dr. Walshe's Translation of Louis on Phthisis, p. 53.

(c) "In the pathological museum of the Leipsic Hospital, there is an aorta, exhibiting a continuous series of ulcers through its entire length."—Hasse's "Pathological Anatomy," p. 78.

(d) Mr. Hodgson observes, in his work on the "Diseases of the Arteries and Veins," p. 23, that "calcareous matter is sometimes deposited in the arteries of very young subjects. My friend, Mr. George Young, possesses a temporal artery which he removed from an infant fifteen months old, in which the coats of the vessel are converted into a complete tube of calcareous matter. Portal observed a similar occurrence, 'Cours d'Anatomie Médicale,' Tom. III., p. 133. See also Scarpa on 'Aneurism,' Wishart's translation, p. 89." As to many important points respecting arterial degeneration, the reader must not fail to consult "Recherches sur le Cœur et le Système Artériel chez l'Homme," par J. Bizot, (de Genève.) See "Mémoires de la Société Médicale d'Observation," Tome Premier, Paris 1837, p. 262.

(e) The relative frequency of aneurism in these two vessels will of course be thought of in connexion with this point.

(f) *Loc. cit.*, p. 89.

(g) "Researches, Physiological and Anatomical," Lond. 1839, pp. 327 and 436.

coloration of those parts of the middle coat of the artery which happen to be near to the accumulated fatty matter." Hasse speaks of there being found in the atrophic fibres phosphate and carbonate of lime.(a) Rokitansky compares the fatty degeneration of the fibrous coat to "the so-called fatty metamorphosis of the muscular tissue." In considering the changes of this particular structure, we must keep in view how readily fibrin is converted into fat, and the strong disposition of fibrous tumours, their force of growth failing, to calcareous decay.(b) Calcareous granules, in scales and groups of elliptic form, have been seen by M. Bizot upon the lining membrane of certain arteries. Some granules in large arteries may probably, like those pointed out by Dr. Jenner in small vessels, be occasionally difficult, perchance impossible, to distinguish from minute oil globules. True ossification of arteries does not exist; let this process be distinguished from the calcification of tissues falling to decay.(c)

Atheromatous degeneration must be fully considered.

1st. In relation to the arteries themselves:—

a. Their atrophy and change of structure.

b. Their narrowing and obstruction.

c. Their dilatation and aneurism.

d. Their ulceration, as it is termed improperly.(d)

e. Their rupture.

2nd. In relation to the due nutrition of the parts which they supply.

3rd. In relation to definite life, whether looking to the body or particular tissues.

4th. In relation to the symmetrical failures of the nutritive process.

5th. In relation to the question of diagnosis, (e) for this may be aided by an obvious aneurism, or an artery, as the radial, clearly ascertained to be degenerate by the touch.

6th. In relation to the whole complex question of decay.

Although, as a rule, dilatation of the arteries is consequent on some obvious change in their coats, it may be supposed, that, in some instances, simple atrophy may so attenuate and weaken the walls as to disable them from resisting the pressure of the blood. An example of many co-existing aneurisms is on record, in which no change of structure was visible. "M. Jules Cloquet gives a remarkable instance of disposition to true aneurism in a subject aged fifty. Numerous sacculi were found in all the second-sized arteries. The aorta and primary branches had fewer. *There was no alteration of tissue;* but the sacculi were thinner, as if produced by simple dilatation." (f) Supposing that no microscopical examination were made in this case, it is impossible to say positively that the tissues were unchanged; but, at any rate, it is not a little curious that such a number of aneurisms should have been unaccompanied by apparent change. Dr. Baillie remarks, that "the arteries near an aneurism are diseased to a greater or less extent in different persons; but he does not recollect a single instance in which they were totally free from disease." (g) I have myself seen a considerable number of aneurisms examined, and my experience agrees with the far larger and important one of this accurate pathologist. Dr. Baillie attributes the rarity of aneurism of the pulmonary artery to its having no arch and the easy passage which the blood has through it; but here certainly its comparative immunity from atheromatous change must also be taken into full account.

Looking to the extreme commonness of atheroma of the larger arteries, we shall be surprised that aneurism is not more frequent. At the base of the brain we see daily the most extensive degeneration, and yet aneurism of the arteries situated there, and effusion resulting from their rupture cannot be called frequent by any means. Many cases have, indeed, been narrated, but let us note through what a space of time they range, and how various their narrators are. The number of apoplexies wherein the great arteries have been proved to be the causes of the hæmorrhage, are as nothing compared with those in which small or very minute branches have been affected; and infinitely the most common seats of aneurism are presented by the small blood-vessels.

But no cases of cerebral hæmorrhage more suddenly kill than those depending on the large vessels; they must generally, of course, be far more swiftly fatal than instances wherein the small ones are involved. Mr. Copeman has collected some interesting examples of hæmorrhage from the great cerebral arteries:—

1. A case of a man, aged 35, in which a branch of the right middle cerebral artery presented an aneurismal tumour the size of a swan-shot, from the rupture of which death happened in about thirty minutes after the seizure.

2. A case from a small aneurism of the left vertebral artery. Both vertebral arteries were in a diseased state, being in some places cartilaginous, though the individual was only 21 years of age.

3. A case from the bursting of an aneurism of the basilar artery; the coats of the vessel were cartilaginous.

4. A case from ruptured aneurism of the same artery. The patient, a young woman, was only 21.

5. A case from ulceration and rupture of the same artery. The margin of the opening was thick, and of a dull yellow colour. There was no appearance of aneurismal sac. The subject, an attorney's clerk, was 30 years of age.

6. A case from a small ruptured aneurism of the middle cerebral artery.

7. A case, in a youth of 19, from an aneurism of a branch of the middle cerebral artery. It was the size of a pea.

8. A case from rupture where the vena magna Galeni comes to its termination.(a)

M. Serres has described a case from rupture of an aneurism of the basilar artery as big as a hen's egg. Generally aneurism precedes rupture, but, as one of the above instances might be cited to show, not always. Others might be added. Sir Astley Cooper tied the left carotid of a man in 1808. In 1821 his patient died of apoplexy, caused by the bursting of the left middle cerebral artery, which was found larger than that of the right side, and denser and whiter than usual.(b) Sir Charles Bell was called upon to give evidence at the Old Bailey, respecting a woman who died of rupture of the left anterior cerebral artery, after being struck by her husband in a quarrel.(c) This case is of great interest in a medico-legal point of view. A man, aggravated by his wife, who had sold for gin "the bed he was to lie upon and the tools of his trade," struck her in a quarrel, and, "the contention continuing," struck her again. He was tried for her murder, but was acquitted on the evidence of Sir Charles Bell, who said that there were states in which external injury or shock might be unusually liable to produce rupture, and that intoxication might predispose to it. I remember being present at the examination of a case of sanguineous apoplexy, which occurred to a woman after a blow upon the forehead by her husband, which left an ecchymosis. The question was, had he killed her? She was in a passion at the time she was struck, and there was associated with the apoplexy a contraction of the right auricule-ventricular opening of the heart, the auricle being dilated from the impediment offered to the return of blood. Under the circumstances, such evidence was given that the case went no further than the coroner's inquest. It is important, in cases of this kind, to search well for evidences of disease in the large vessels of the brain, and to note accurately whether there be softening about the effusion, and to what extent, and to mark also the state of the small vessels near. Traces of former effusions should also be sought for, and the heart observed, not merely as to its cavities, valves, and vessels, but the minute condition of its fibres.

Cerebral aneurism, like every other, must be viewed closely in relation to fatty degeneration; not that it is contended to arise *exclusively* from that species of decay, which, however, may be held most commonly to aid more or less in its production. Where mixed forms of degeneration occur, we are compelled often, in alluding to *one* of them, to treat of their joint consequences. But, *practically* speaking, it is not so much the exact species of degeneration to which we shall find it so essential to attend, as to the grave destruction of tissue which results. Aneurisms, I apprehend, would be more common in the old, but for the quantity and force of the blood-current diminishing; and, on the other hand, limited degeneration may be perilous in the young, from the full and oftentimes tumultuous circulation which may be prevalent. While lingering disorders dispose to degeneration, they can only be said to lead to aneurism in

(a) "Pathology," p. 81.
(b) *Op. cit.*, Vol. IV., p. 269.
(c) "Lecture on Fibrous Tumours," by Mr. Paget.
(d) Rokitansky's Pathology, Vol. IV., p. 266.
(e) I refer especially to suspected degeneration of the heart or brain.
(f) Mayo's Outlines of Pathology, p. 463.
(g) Morbid Anatomy, eighth edition, p. 16.

(a) "Copeman on Apoplexy," pp. 34, 39, 40, 49, 53, 107, 108.
(b) Guy's Hospital Reports, Jan. 1836, p. 57.
(c) See "Cheyne on Apoplexy," p. 216, *et seq.*

an indirect and modified sense; but in this way most surely, for parts of arteries, defective in assimilation, will languish and decay, though only at a little spot or two, where anæmia or exhaustion are much protracted; and then it may happen, on the constitution recovering, in a general sense, and the circulation regaining its wonted power, that the affected spot, equal enough to resist the weak current, gradually gives way before the strong. On going into the history of cases, we feel often that what we most seek is most perfectly hidden. Commonly, for example, we want to know the exact changes left by some fever or exhausting disease, but can reach nothing certain.

Dr. Brinton has drawn up a valuable table of fifty-two cases of intracranial aneurisms.(a) According to his summary, the average time of their occurrence is the fortieth year.(b) The terminations of the cases should be well observed. Asked how these aneurisms may end, we might reply—

1. Death may result from rupture, which was the end of half the instances collected by Dr. Brinton.

2. The aneurismal artery may have its ramifications so degenerated that fatal softening or apoplexy may be the consequence.

3. The aneurism may destroy by direct pressure on the medulla oblongata.

4. It may prove fatal by indirect compression of the same, occasioned, in some cases, by sudden effusion into the lateral ventricles.(c)

5. It may give rise to mortal epileptic convulsions.

6. Or the patient may die of some cerebral disease in nowise connected with the aneurism; or of heart affection; of renal diseases, or some acute malady; or fever, or of some form of degeneration kindred with that which caused the aneurism. Aneurism, of course, gives no immunity from any other complaint; and so we find it by accident in the bodies of those who have died from affections of another sort.

Deficiencies will be found in many cases of cerebral aneurism which should be supplied by future records. Like apoplexy, it may happen from local decay, or from such as are associated with the most general evidences of decline in both vessels and tissues. The cases should, of course, be classified and kept distinct. Hitherto cerebral aneurism has been viewed too much in isolation. The change producing it is often general, the arteries being almost everywhere speckled with more or less thickly-grouped patches of decay, and time alone is wanting to the development of other aneurismal sacs. It should always be inquired, what is the state of the branches of the artery which is the seat of the disease? what of the neighbouring arteries and arteries in general? what is the condition of the heart and kidneys? and so forth. Is the 'arcus senilis ever associated with the aneurisms happening in early life?

It was held by Morgagni, that aneurismal dilatations gave rise to apoplexy. This view of the disease, to borrow Dr. Cheyne's language,(d) he has endeavoured thus to illustrate:—"Two aneurismal tumours preceded the attack of apoplexy, which in twelve hours was fatal to the celebrated Bernardin Ramazzini. These aneurisms were not larger than a bean; and, what is not a little curious, they occupied a similar situation on the back of each hand, in the angle between the forefinger and thumb.(a) Morgagni tells us that the old man used to show him these tumours, which came on in the last years of his life, and would often describe what he had suffered before their appearance, from a violent palpitation of the heart, and from an intense hemicrania which followed it. At last, after the palpitation and hemicrania had left him, a loss of sight, first of one eye and then of the other, preceded the apoplexy." The palpitation of the heart, the aneurism of the hands, the gradual loss of vision, and, finally, the apoplexy may be concluded most reasonably to be due, all of them, if not to one form of degeneration wholly, at least to mixed forms of it, caused in common by the same prevailing and increasing atrophy. The arguments of Dr. Cheyne are opposed to the view taken by Morgagni; but, had he seen what may be beheld with the microscope almost daily now, he would never have spoken of the improbability of aneurism extending beyond the great arterial trunks. It is to be believed that many effusions of blood into the brain depend directly on the simultaneous rupture of numerous aneurisms of the small blood-vessels.(b)

[To be continued.]

(a) See end of Report of the Pathological Society, 1851-52.

(b) A case from Dr. Crisp's work is cited which happened at the age of *fourteen*.

(c) Death seems to have happened from rapid ventricular effusion in the remarkable case of aneurism of the anterior cerebral artery, the size of a hen's egg, detailed by Dr. Hamilton Roe. (Report of Pathological Society, 1850-51, p. 46.) The patient was a young woman of 21, and had long been affected by cerebral symptoms, of which drowsiness, no doubt from gradual pressure on the brain, was one. I watched this patient from time to time, and was one day suddenly called to her, and found her dying. The face was suffused and purple; there was no respiratory movement, not even the slightest; and the sudden application of cold to the face had no effect whatever; but the pulse was still beating, and so kept until the asphyxia was complete. A very large quantity of fluid was discovered in the lateral ventricles, and its pressure, added to that previously maintained by the large aneurism, most probably caused the swift dissolution. No convulsion ever happened in this case, a circumstance to be explained by the locality of the aneurism. Dr. Baillie, observed, that tumours in this spot were apt to produce various impairments of vision, and that they commonly gave rise to convulsion if they made pressure on the medulla oblongata. Compare this latter remark with the results obtained by M. Flourens in his experiments: "Les hémispheres cérébraux ne sont point susceptible d'exciter immediatement des contractions musculaires."—*Systeme Nerveux*, p. 18, *et seq.*

(d) *Op. cit.*, p. 32.

CASE OF PULSATING ABDOMINAL TUMOUR.

By W. BRIGHAM, Esq., F.R.C.S., Etc.

H. G., aged 54, was a farmer, residing in a healthy, hilly district, and of temperate habits. His state of health was generally good; his complexion sallow; countenance anxious; of spare habit; he was occasionally subject to derangement of the stomach and bowels, with constipation.

His parents had thirteen children, most of whom died while young, one elder brother only now being alive; a brother and sister about his own age died of chest disease.

His present illness commenced in the spring of the year 1852, and he has been under medical treatment ever since.

October 16, 1852.—He came for advice this day, describing himself as "having lost strength and flesh gradually for many weeks past, with increasing weakness, loss of appetite, indigestion, and constipation, frequent pains in the back, loins, and in each side, more particularly the left, restless nights, not so much from pain as from frequent beatings and flutterings in the belly."

His appearance confirms this account of the symptoms; the countenance is very anxious; pulse 61; tongue clean, moist; respiration free; heart sounds healthy; sound of chest on percussion clear and resonant; no cough; no tenderness in any part of the abdomen on pressure, nor any perceptible fulness; urine abundant, slightly acid; motions not often passed without medicines, but no pain or tenesmus attending the evacuations.

The preceding symptoms did not lead to any suspicion of deep-seated mischief; he was accordingly treated in the usual way for derangement of the stomach, viz., by mild aperients and tonics, combined with moderate diet and gentle exercise.

No relief was obtained from this treatment; the pains con-

(a) "Dr. Baillie records an instance where both the internal carotids, on the side of the sella turcica, were distended into little aneurisms, one of the aneurisms being about the size of a cherry, the other somewhat smaller, and similar examples are related by other writers. I have seen two such myself, a beautiful preparation of one of them is preserved in the museum of the College of Physicians." (Dr. Watson's Lecture, Third Edition, Vol. I. p. 515.) Dr. Baillie observes, after mentioning the case which Dr. Watson cites—"It is remarkable, that in the only two instances which have come to my knowledge of aneurisms being formed in the arteries of the head and brain, there has been an aneurism in both arteries in the same situation and at the same time. I once met with an aneurism in each of the carotid arteries, at the origin of the internal carotids." (Morbid Anatomy, Eighth Edition, p. 273.) Mr. Hodgson refers to a case recorded by Sir Gilbert Blane of "two aneurisms of the internal carotid arteries, about five-eighths of an inch in diameter, filling up the hollow on each side the sella turcica;" and to a preparation in Mr. Heaviside's Museum, "of two flask-like dilatations of both vertebral arteries immediately before their junction to form the basilary." (Op. cit., pp. 76, 78.) A very interesting illustration of the symmetrical disposition of tubercle in the choroid plexus is given in Dr. Baillie's representations of diseased parts, Tenth Fasciculus, Plate VII.

(b) I have observed in very minute blood vessels, with the microscope, what I have never seen in a large, namely, a chain of aneurismal dilatations running along its coats. In a former part of this paper (see *Medical Times and Gazette*, December 18, 1852 p. 617) I have spoken of the possibility of vessels, once dilated by inflammation, passing either into fatty or calcareous degeneration. The language is not sufficiently explicit. I had intended only to put the supposition, that they might *occasionally* do so.

tinued, though not severe; the appetite became improved; the tongue clean; motions natural; urine abundant.

November 4.—In consequence of the account given by his wife, (who accompanied him on his visit this morning,) of the "beatings and flutterings in his belly," I placed the patient on his back, and carefully and minutely examined the abdomen. There was no swelling, fulness, or distension on any part, nor any tenderness in the epigastric or hepatic region on pressure. The pulsations of the abdominal aorta were full, regular, and distinct, but not more forcible than might have been expected in any patient much reduced by illness. No bruit or murmur was discoverable, but the aortic pulsations were much stronger than one might infer they should be from the general state of the circulation.

27th.—I did not see the patient again until this day, and the rapid advance of his disease during the short interval deserves particular attention.

I visited him at his own home, where he was confined to bed, much reduced in flesh; pulse 60, regular, soft; bowels open; motions natural; urine abundant, rather acid; appetite failing. The symptoms continue as before described, with increase of pain and abdominal pulsation, which keep him awake all night. He lies on his back, with his head and chest raised.

On examining the abdomen, a large, firm, well-defined tumour was discovered, about the size of an orange, immediately below the umbilicus, and extending down to the left hypochondrium. It might correctly be called a pulsating tumour, for it gave to the ear a free and distinct beat, steady, regular, and full, without bruit or distinctive character. The stethoscope detected no abnormal sound. The tumour was hard, irregular, not sensitive under manipulation, nor did it subside under gentle and continued pressure.

29th.—The patient is easier to-day, being relieved by constant rest in bed, and small doses of morphia; bowels readily acted on by small quantities of ol. ricini; motions natural; pulse 58, regular; tongue clean and moist; tumour enlarging and pulsating more strongly.

December 11.—He is getting worse rapidly; appetite declining; pulse 58; tongue clean; bowels open; pulsation in tumour full, firm, and steady; no bruit or abnormal sound; tumour increasing, knobby, defined, and extending to left hypochondrium. Continue morphia in increased doses.

14th.—Tumour enlarging, and extending to left hypochondrium, feeling knobby, and defined throughout with an indistinct depression and softening in the centre; pulsation in tumour full and clear; pulse 58; bowels free; motions natural; urine smaller in quantity, not albuminous. Continue anodynes, etc.

15th.—Pains decreasing; tumour enlarging; pulsations stronger, 58, full, and regular; general symptoms unchanged. To take the morphine only, and to have a more nourishing diet.

23rd.—Continues moderately easy; tumour not increased in size; pulsations more subdued and indistinct, regular, and unaccompanied by any peculiar sound; more restless nights, but has been three days without medicine; pulse 60; tongue clean; appetite improved; urine increased in quantity; discharges a great deal of flatus from stomach, which is very offensive; pains now chiefly referred to left side, where an increase of size was last noticed.

30th.—There is a marked progress of the disease, with a change in the symptoms. He now complains of much "soreness and smarting" towards the outer surface of the tumour, which is evidently softened throughout, and considerably increased in size; its pulsations are still full, and synchronous with the radial pulse. There is fluctuation, though indistinct, just below the umbilicus; no redness or discoloration of skin; countenance sunken; slight anasarca in both upper and lower extremities; urine scanty, not albuminous. Fomentations and cataplasms constantly to the part; bowels to be gently moved by ol. ricini; anodynes at night and when in pain; generous diet.

1853. January 2.—The umbilical tumour is smaller; fluctuation evident; no inflammation on surface; less pain; great exhaustion; increased anasarca.

7th.—There is a circumscribed swelling in the centre of the tumour, which contains fluid or pus, and a similar formation on the left; the whole swelling is altered, softer in parts, yet knobby, irregular, and of a scirrhous hardness on its outer side; the whole enlargement gives the impression of a large portion of intestine adhering to some extent to the abdominal parietes with suppuration, and advancing externally to the adherent mass; anasarca increasing. To continue the cataplasms, anodynes, etc.

11th.—It is a remarkable circumstance, that through the whole progress of this disease, which is evidently involving some considerable portion of the intestine, the stomach has continued so little irritable, vomiting never having occurred once, and the bowels preserving their natural action, only requiring the mildest aperients.

Within the last three days, nausea and vomiting have occurred for the first time with diarrhœa; the fluid vomited is of a dark, viscid character, of a chocolate tinge, and very offensive. The motions, hitherto natural, and of full bilious tint, are now of a light clay colour. The abdominal swelling presents much the same character as before, with the matter advancing towards the surface; no discoloration of skin or increase of pain; anasarca greater in both upper and lower extremities.

15th.—Has had a rigor, which continued twenty-five minutes.

17th.—Diarrhœa; loose, fetid, clay-coloured evacuations; vomiting of dark-coloured, viscid fluid, very offensive; anasarca. Abdominal tumour larger, with increased softening; urine scanty.

20th.—Diarrhœa; vomiting of very offensive matter; anasarca increased; pulse, small, slow.

22nd.—Diarrhœa abated; vomiting occasionally; appetite gone; considerable œdema; tongue clean, moist, not red, fissured, or indented. This clean state of the tongue continued throughout the whole period of the disease.

23rd.—The abscess was carefully opened to day, and discharged a moderate quantity of clear pus, not fetid.

24th.—Relieved by the opening, which discharges freely; occasional vomitings, no motion, œdema as before, much exhausted.

25th.—Free discharge from abscess; occasional vomiting of an offensive dark-coloured fluid; bowels not moved since 23rd.

26th.—Vomiting; no evacuation; is sinking, and died on the morning of the 27th.

January 28th.—*Post-mortem Examination Twenty-four Hours after Death.*—Great emaciation; œdema of upper and lower extremities; prominence of tumour subsided, but easily felt below the umbilicus.

On dividing the skin and integuments the sac of a superficial abscess was exposed over the rectus muscle; it was connected with deeper-seated formations of pus in the peritoneal cavity surrounding the tumour.

On reflecting the iliac portion of the abdominal parietes, a firm, consolidated, scirrhus-like mass, the size of a very large orange, was brought into view, connecting the greater part of the transverse arch of the colon with the whole of the greater curvature of the stomach. These adhesions, which were of a strong fibro-cellular character, firmly united the stomach to the colon, and to some portions of the jejunum below. The stomach, from its connexion with the colon, was drawn downwards from its natural situation towards the umbilicus. On removing the stomach and colon, and laying open each, the following appearances were observed. The stomach contained some fluid food; the odour was very offensive; the mucous membrane exhibited spots in three or four places of a red striated character; in other parts the whole of the mucous and muscular coats were thinner, paler, and lighter than usual, and there was a remarkable absence of rugæ on its surface. The cardiac and pyloric orifices were not constricted, and the mucous lining of both these portions was normal.

About the centre of the greater curvature of the stomach a large, rough, jagged opening, about the size of a crown-piece, was seen surrounded by deep, excavated ulcerations and prominent fimbriated fungous masses; the excavations were filled with pus; the surface of the membrane was covered by a viscid layer of a chocolate colour, and very tenacious.

This large opening communicated with the colon, which presented the same character of disease; but the destruction of parts here was more extensive, the scirrhous enlargements more evident, and the ulcers deeper and more excavated, particularly where they opened into the stomach.

The whole remaining portions of the intestines were normal, and entirely free from induration or adhesions, except on the peritoneal surface of the jejunum, as already stated.

Liver healthy, not enlarged; gall-bladder full of bile;

spleen, pancreas, kidneys, &c., normal; bladder distended with urine; the aorta and its branches perfectly normal; the lowest and deepest part of the enlarged scirrhous mass lay immediately above, and almost in contact with the vessel, which was not altered in its course.

This case presents several points of some interest. Although the *post-mortem* examination revealed the existence of very extensive organic disease; yet the complaint preserved a mild appearance for a long period, and the general symptoms were comparatively insignificant.

The abdomen was carefully examined on the 4th of November, without any trace of internal organic disease being discovered. The belly was soft and elastic, free from pain on firm pressure, nor could any hardness or change of form be distinguished; yet, on the 27th, all the characters of a pulsating tumour were clearly developed.

During this period it is evident that carcinomatous disease of the stomach and colon was steadily progressing; yet the patient did not exhibit any of the ordinary symptoms of such disease as "fixed, deep-seated, epigastric pain, nausea, or vomiting." The latter symptom, indeed, did not occur until a few days previous to death.

Finally, it is worthy of remark, that the most prominent symptom of the latter stages was a large pulsating tumour, which simulated aneurism of the abdominal aorta, and terminated in the formation of external abscess.

Lymm.

EXTENSIVE GANGRENE AND SLOUGHING OF THE ENTIRE SCROTUM,

FROM PROBABLE DEEP-SEATED INFLAMMATION OF THE PROSTATE GLAND,

WITH THE COMPLETE REPRODUCTION OF LOST PARTS.

By PERRY DICKEN, M.R.C.S. and L.S.A.

A. B., aged 64, butcher, of full habit of body, and generally plethoric, (occasionally the subject of retention of urine from enlargement of the prostate gland, requiring the use of the catheter,) was attacked with high irritative fever, rigors, thirst, dry tongue, heat of skin, and constipation of the bowels, severe deep-seated pain in the perinæum, and some slight difficulty in micturition, but no retention of urine; sense of weight and throbbing in the perinæum, great restlessness, and general disturbance of system. Being, however, fearful that he should be obliged "to submit to the operation of catheterism again," he determined to allow the disease to run its course, rather than submit to the operation; becoming, however, daily gradually worse, and his symptoms assuming a very alarming character, I was at length desired to see him, when the following symptoms presented themselves:—

He was complaining of a sense of great fulness, weight, and uneasiness, in the perinæum, accompanied with much throbbing and swelling, extending both backwards towards the anus, and upwards over the scrotum; the tongue dry, dark, and loaded; skin hot and feverish; pulse rapid; great tenderness, on pressure, in perinæum, and the skin in that part "of a deep, dark, red-colour;" the integuments exquisitely painful, and very much swollen, the urine passing without any unusual difficulty, and without any material straining. I ordered immediately ten leeches to the perinæum, with hot fomentations; calomel and opium every three hours, and saline effervescing draughts, with tartrate of antimony, and a purgative draught.

April 20, 1852 (next morning), 11 a.m.—Found him much worse; the integuments over the scrotum have assumed at one point a dark gangrenous appearance, which is very rapidly extending itself; the feverish symptoms are materially increased; there is great restlessness, and slight wandering at intervals; the tongue very dry, and great thirst; the urine passes naturally, with no apparent difficulty. Thinking it probable, that either there was deep-seated matter in the perinæum, or some extravasation of urine, a catheter having been introduced into the bladder, several incisions were made freely in the perinæum, through the inflamed parts, which gave exit to a large quantity of coagulated blood and dead portions of cellular membrane, together with a quantity of fetid gas. The parts divided exhibited little or no sensibility, and he scarcely complained during the operation. The brain appears much oppressed; and he is occasionally wandering, and at intervals slightly insensible. Hot fomentations to be continued, and a yeast poultice constantly applied.

21st, 10 a.m.—The gangrene has rapidly spread since yesterday, and has extended all over the scrotum, as high as the root of the penis; "the incisions made yesterday wide and gaping," but no discharge of pus or blood; low muttering delirium; immense swelling and distension of the scrotum, which has assumed a generally black appearance, and, being distended with foul gas, has attained "an enormous size, and is quite tympanitic;" a line of demarcation, however, exists at the upper part of the gangrenous portion of scrotum, which shows a disposition to separate. Several large incisions were now carried through the scrotum, with a further view of stopping the march of the gangrene, and also of evacuating any collection of matter; a quantity of highly fetid gas was alone extricated, the wounds in the perinæum assuming a more healthy look. The gangrene appears to be arrested, "but extensive sloughing of the whole scrotum is taking place," and separation of the dead parts is commencing. Ordered saline draughts in effervescence with carbonate of ammonia every three hours, with wine, etc. The general symptoms are improved; the tongue more moist; the delirium absent; and the countenance has assumed a better appearance.

22nd.—Detachment of dead parts gradually going on. The fetor most intolerable. Scrotum black, and its size still enormous; accumulation of foul air constantly generated. Tongue dry; delirium less frequent; pulse quick and low; appetite bad. To continue wine, bark, etc.

25th.—Since last report, the entire separation of the dead parts has taken place, "and the whole scrotum has sloughed away an enormous mass of putrid, dead matter." The testicles are left suspended by their cords, and completely bare of any covering. The breach of surface is enormous, and the surrounding parts are completely undermined, loose, and ragged, for a considerable distance. Not the slightest attempt at reparation exists as yet. Wounds in the perinæum beginning to discharge a little. Ordered chloride of lime lotion, with yeast poultices and fomentations, etc.

30th.—Granulations since last report have been springing up on surface of wound, which has now assumed a more healthy appearance, and discharges freely. General health much improved; pulse quiet; tongue moist; delirium absent. The scrotum dressed daily with strips of lint spread with unguent. resinæ, and applied so as to give gentle support and exert a slight degree of traction on the loose parts, and bring the opposite edges of the loose skin into closer contact. The testicles are becoming gradually more covered, from the contractile nature of the scrotum, and the reproduction of the lost parts. The nitrate of silver is freely applied to the loose, ragged edges of the wound, and a slight tail bandage to support the whole.

May 4.—Symptoms very much improved; healthy granulations are springing up over the whole surface of wound, which is gradually contracting daily; "the testicles are now again completely covered by the extension of the new skin," and the loose edges of the surrounding parts present a healthy character; the appetite is good, pulse quiet.

9th.—Wound has been daily lessening since last report, the scrotum granulating healthily and discharging freely; the skin daily contracting, and covering the testicles.

20th.—Wound almost entirely healed, with only a slight cicatrix or puckering of skin remaining; indeed, very little mark remains, excepting a line showing the union of surface. Wounds in perinæum healed, and testicles completely covered by new parts.

Remarks.—The principal feature I have to remark on in reporting this case of such extensive sloughing, is "the wonderful powers of reparation which exist in the contractile tissue of the scrotum." This was illustrated to a very striking extent after the detachment of the gangrenous portion, when such an enormous surface remained to be filled up, that I felt very doubtful how the testicles could again regain their natural covering; but I was in a very short time agreeably surprised to find that daily contraction of the opposite sides of the wound took place. The chief difficulty I found was in keeping the edges in apposition long, as the discharge was very profuse, and interfered with the local applications. "The cause" of the disturbance, at first led to the suspicion that it might result from some extravasation of urine, but that idea was not confirmed; it was, more probably, owing to some unhealthy phlegmonous inflamma-

tion, which commenced in the neighbourhood of the prostate gland, (which was much enlarged,) and the matter being confined there for some days, produced gangrene and the subsequent sloughing of the scrotum. It is, moreover, highly probable, that, had he been seen earlier, a free incision at first in the perinæum would have cut short the mischief; but afterwards the gangrene was so rapid, and such a decomposition of the entire structures took place, that little benefit resulted from the scalpel.

This patient had been in the habit for some years previously, of passing large portions of calculi composed of the triple phosphates per urethram, accompanied with intense pain and sometimes retention of urine; indeed, some portions which he passed were so large, that it is difficult to imagine how they passed along the urethra, as, from their jagged uneven surface, they were very liable to lacerate the mucous membrane.

The termination of the case was favourable in the highest degree, and the cicatrization of the scrotum was so complete, that scarce any line could be seen to indicate the union of the surfaces.

This patient died about a year after, from a return of retention of urine, and subsequent effusion on the brain.

Ashby-de-la-Zouch, Leicestershire.

SCIENTIFIC LECTURES.

HUNTERIAN LECTURES ON THE ANATOMY AND PHYSIOLOGY OF FISHES AND REPTILES.

By RICHARD OWEN, F.R.S.,
Hunterian Professor to the College.

THIS DAY, MAY 7.—Lecture XXI.—Vascular and Respiratory Organs of Reptiles:—Lungs: continue in Reptiles to represent arrested stages of a higher development. Trachea, bronchi, and a larynx, progressively superadded to the lungs. They retain the mechanical function of the air-bladder in some Reptilia, and combine that of air-reservoirs with lungs in others. Mechanism of respiration, where the ribs are absent or immovable. Relations of the low respiration and mixed pulmonic and systemic circulations to the low temperature and muscular energy of Reptiles.

TUESDAY, MAY 10.—Lecture XXII.—Renal and Tegumentary Systems, and Peculiar Organs of Reptiles: — Kidney: its various forms; its venous circulation. Urinary bladder; its progress from zero to a maximum of development in Reptiles. Supra-renal bodies; varieties as regards existence and relative position in Reptiles. Modifications of Epidermis in relation to low temperature. Ecdysis in Batrachia. Bony scutes of Crocodiles. "Retia mucosa" of Chameleon. Acrid follicles of Toad. Musk-bags of Crocodiles. Poison-glands of Serpents.

THURSDAY, MAY 12, AND SATURDAY, MAY 14.—Lectures XXIII. and XXIV.—Modifications of the male organs from examples of the orders Batrachia, Ophidia, Lacertia, Chelonia, and Crocodilia. Summary of the modifications and progressive complications of the male organs in the reptilian class: relation of the peculiarities of those Serpents to the peculiar form of the body. Spermatozoa. Structure of the female organs exemplified from species of the orders Batrachia, Ophidia, Lacertia, Chelonia, Crocodilia. External sexual characters. Impregnation, development, and metamorphoses of Batrachia; changes in the form and structure of the mouth and alimentary canal; of the renal organs; and of the respiratory, vascular, and locomotive organs. Marsupial cells of Pipa. Oviparous and ovovivaparous Ophidia and Lacertia. Oviposition of Crocodilia and Chelonia. Development; fœtal membranes of scaled Reptiles; homologies of the Chelonian Carapace and Plastron determined by the development of the skeleton. Concluding remarks on the organization of the cold-blooded vertebrate animals.

LIST OF SCIENTIFIC MEETINGS.

This Evening,	May 7.	ROYAL INSTITUTION. — *Subject*:—"On Static Electricity." By Professor FARADAY. Three o'Clock.
——	——	MEDICAL SOCIETY OF LONDON. — *Subject*.—"On Secondary Inflammation connected with Operations on the Genito-Urinary Organs." By H. BULLOCK, Esq. Eight o'Clock.
Monday,	May 9.	ROYAL INSTITUTION.—*Monthly Meeting*. Two o'Clock.
Tuesday,	May 10.	ROYAL INSTITUTION. — *Subject*: — "On the Electric Telegraph." By W. CARPMAEL, Esq., C.E. Three o'Clock.
——	——	ROYAL MEDICAL AND CHIRURGICAL SOCIETY. Half-past Eight o'Clock.
Thursday,	May 12.	ROYAL INSTITUTION.—*Subject*:—"On Technological Chemistry." By Dr. E. FRANKLAND. Three o'Clock.
Friday,	May 13.	ROYAL INSTITUTION. — *Subject*: — "On Some New Points in British Geology." By Professor E. FORBES. Half past Eight o'Clock.
Saturday,	May 14.	ROYAL INSTITUTION. — *Subject*:—"On Static Electricity." By Professor FARADAY. Three o'Clock.
——	——	MEDICAL SOCIETY OF LONDON. — *Subject*:—"On the Galvanic Cautery in the Treatment of Uterine Disease." By ROBERT ELLIS, Esq., F.L.S. Eight o'Clock.

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Medical Times & Gazette.

SATURDAY, MAY 7.

THE NEW MEDICAL REFORM BILL.

WE are sorry that we are unable to supply any information of importance concerning the new Medical Reform Bill which is now in the hands of Lord Palmerston. We understand that the Home Secretary has not yet communicated his views upon the Bill to the promoters of the measure.

We had hoped, that, during the time which has elapsed since the draft of the Bill was made known, such alterations would have been effected as to render it acceptable; but we regret to find, on inquiry, that its provisions are precisely the same as when we drew attention to them at the close of last year, and, indeed, that Lord Palmerston possesses the very same measure, word for word, as that which we published in our columns at that period.

The College of Surgeons has declared its hostility to the Bill, and its determination to oppose it; and if this line of conduct were dictated by any patriotic regard for the welfare of the Profession, we should be among the first to applaud the course which it has taken; but there is too much reason to fear that the opposition of the College is traceable to two feelings of a far less praiseworthy character, namely, first, an abstract dislike to all Reform whatever; and, secondly, a sentiment of jealousy that any Reform measure should be proposed which does not emanate from Lincoln's-inn-fields.

The College of Physicians is understood to be favourable to the measure; and this is hardly to be wondered at, when we consider that the College will confer no privileges or rights upon the mass of the Profession, under the proposed scheme, but will obtain a large addition to the Collegiate funds from the fees to be received from the candidates for medical licences. In fact, if the College should procure its new Charter, (which we think very probable,) and if the Bill of the Association should become the law of the land, (which, however, we think, is *not* probable,) the venerable building in Pall-mall would resemble the Californian gold-diggings, for it would become the depositary of the accumulated fees of the Fellows and Licentiates of the College, as well as of all future Licentiates in general practice.

The Scotch Universities are also understood to be favourable to the measure—another circumstance at which we feel no surprise, because, as all British practice would be open to Scotch practitioners without restriction, and as medical education is much cheaper in Scotland than in England, there cannot be any doubt that the first effect of the proposed Bill would be to direct the stream of medical students towards the North, which already contributes a very fair proportion of practitioners to the Southern part of our island.

But the opinion of the Profession itself, for whose benefit or for whose supposed benefit all these schemes are in operation, has not yet been consulted; and we are very anxious that the Profession should have a voice in these

matters, which so nearly touch its interests. Hitherto, however, all discussion appears to have been carefully discouraged, though for what reason we are unable to comprehend; for, surely, if the measure be a good one, the more it is canvassed the better will it be understood and appreciated; and, if a bad one, then the sooner it is mended, or discarded altogether, the better for the interests of medicine.

We are happy to quote the following passages from our respected Cotemporary, the *Association Medical Journal*, as evincing a very proper deference to the feelings of the Profession at this important crisis:—

"In the meantime, it is our duty to state, that great impatience is felt by the Profession throughout the country; and that a fear is expressed by many, that the Session of Parliament may be allowed to pass away without any Bill being brought forward, in consequence of present silence being imputed to apathy, and not to its true cause—uncertainty as to the exact position of affairs. As there is no Bill before Parliament, it is not competent for us to petition for any specific measure; but it might be well for us to guard against a future charge of indifference, by petitioning generally for such a measure of Medical Reform as will embrace the three great objects for which our Association has contended, and is now contending, viz.:—

"1. Uniformity of qualification.

"2. Equal right to practise throughout the United Kingdom; and

"3. Representative Councils for the governance of the Profession."

The principle of representation is that for which we have strenuously contended, but which is wholly ignored in the Bill of the Association. In fact, as we have stated on many former occasions, the proposed Bill aims at abolishing the very small amount of independence which the Profession now possesses, and coolly hands over our much ill-used brethren to the College of Surgeons, which repudiates the alliance, and rejects the proffered boon; to the College of Physicians, which consents to receive the bribe, but offers nothing in exchange; and, finally, to the Secretary of State, to the Universities of Oxford and Cambridge, and to some other parties, who care as much for the interests of the General Practitioners of England as does the Emperor of China or the King of Otaheiti.

After writing the above, we received a report of the proceedings of the South-Western Branch of the Provincial Medical and Surgical Association, which we publish in another part of our Number. In our opinion, the objections to the Bill are very clearly and concisely stated; and the speech of Mr. De la Garde, particularly, is characterised by good sense, good feeling, and a thorough knowledge of the subject. While publishing this Report in opposition to the Bill, we shall be equally ready, as far as our space will permit, to insert the reports of any meetings in its favour, as our only object is, to do justice to all parties, and to allow the voice of the Profession to be fairly heard.

As we were going to press, we heard it stated that, in consequence of the protracted debate upon the Budget, Lord Palmerston would be unable to take charge of the Medical Reform Bill in the House of Commons; and that a Deputation was to wait upon Lord Aberdeen, on the 12th instant, with a view of inducing the Premier to introduce it into the House of Lords.

MORE GEMS FROM IRISH POOR-LAW ADVERTISEMENTS.

We give our readers to-day another specimen of the hopeful prospects held out to the members of our Profession in Ireland. We have already, on several occasions, called attention to the degrading contrasts presented by Advertisements which constantly appear in the columns of the *Dublin General Advertiser* and other weekly mediums of advertising, where the salary of the Medical Officer is considerably below that of the workhouse Master. As we before observed, there appears to be a general tendency in all the Boards of Guardians in Ireland to run down the salaries of the Medical Officers to the lowest possible point, while, on the other hand, the salaries offered to workhouse-masters, matrons, schoolmasters, schoolmistresses, agriculturists, and porters, are, in general, not only fair and adequate, but even in many instances liberal; and it must be borne in mind, that all the latter class of officials are provided with apartments and rations, and some of them with clothes. *Quousque tandem?* we may truly say for the unhappy dispensary doctor in Ireland. But not the least annoying of the circumstances of his case, is the announcement in the official Report of the Poor-law Commissioners for Ireland, that the condition of the Profession has been vastly meliorated And while the majority of the Dispensary doctors complain loudly of inadequate salaries, oppressive and harassing duties, and the scandalous impositions to which they are subjected by parties well able to pay for medical advice, but who get some easy or convenient member of the Committee of Management to recommend them as fit recipients for gratuitous medical aid, we find such laudatory commendations as the following, in a journal in whose advertising columns 40*l.* a-year is offered to a Workhouse Physician.—

"It is a matter of rejoicing to find our national institutions of this character growing into solidity, based on right principles, and worked for the public advantage, not for personal or class aggrandisement. It is one of the signs of our coming prosperity. The Medical Charities' Act is a benevolent measure. The preliminary proceedings of the Commissioners inspire us with confidence in their future management of the onerous trust reposed in them by the Legislature and the Nation."

We do not know, or care to know, what confidence the Legislature has in them; but we have reason to know that the Profession in Ireland has no confidence in them. The following advertisements will shew what the Irish Medical Officer has to expect from Guardians and Commissioners:—

Castletowndelvin Union.—Wanted "a medical officer for the new workhouse at a salary of 40*l.* per annum." "Candidates to be in attendance." The Guardians of the same Union, in an advertisement under the last, offer 25*l.* per annum to a master, and 20*l.* to a schoolmaster, with apartments and rations. The Rathdown Union wants a porter at 20*l.* a-year, "with a suit of clothes, rations, and apartments." The Sligo Union wants a schoolmaster at 25*l.*, with first-class rations; even schoolmistresses get 20*l.*, and sometimes more, with apartments and rations. There is no comparison between the labours and duties of the Dispensary doctor, and those of the schoolmaster or workhouse master. The positions of the latter are inconceivably more independent. The red ticket, with an order for "immediate attendance," commands the body and soul of the Medical Officer at any time of the day or night, or exposes him to the alternative of being charged with "gross neglect of duty," and "shocking inhumanity;" and no one can conceive the carelessness with which these orders are issued.

We have heard, with great satisfaction, that it is the intention of the Irish Medical men to hold a meeting in Dublin, early in June, to consider their grievances, and the

best means of obtaining redress. We recommend earnest and vigorous action, and the adoption of a bold and determined policy. The cause is too strong to fail, if only rightly worked, and if the Irish Dispensary Physicians and Surgeons be true to themselves.

THE OUT-PATIENTS AT HOSPITALS.

We drew attention, in a former article, to the incredible figures purporting to represent the number of out-patients in the public hospitals, published yearly by the "authorities" of those same hospitals. We use the term *incredible*, because, at the present time, neither plague nor pestilence decimates our city, cases of starvation are scarce heard of, and a well-organised police prevents to any alarming extent the occurrence of strife and murder; nay, in London the necessaries of life are cheaper than elsewhere; our drainage, though capable of improvement, has still its merits; and the Registrar-General's Returns show an increasing and thriving population: and yet, in the face of all this, the following awful announcements meet the eye in the pages of the "London Medical Directory," a work in which the attractions of the public hospitals are set forth in their most enticing form:—

	Out patients and Casualties. Per Annum.
St. Bartholomew's Hospital . .	85,000
St. Thomas's Hospital . . .	57,200
Guy's Hospital	40,000
Westminster Hospital . . .	14,000
London Hospital	16,403
Middlesex Hospital	12,000
	224,603

Are we expected to believe, that there are every year relieved at six hospitals *only*, 224,603 out-patients and casualties? Let it be remembered, that this does not include the out-patients and casualties in University College, in King's College, in St. George's, St. Mary's, nor in Charing-cross Hospitals, nor in any of the infirmaries attached to the Metropolitan poor-houses; neither does it include the poor seen in the Dispensaries, between eighty and ninety in number; nor any of the out-patients in General or Special Hospitals. What! nearly a quarter of a million of sick poor seen annually in six London hospitals, by a few gentlemen devoting an hour or two of their leisure time, twice a week, in a small back room, with a cast-off porter to act master of the ceremonies. Incredible! we say. If this be true, London, with a population (in rough numbers) of two millions, must be a very pest-house, in its streets grass ought to be growing and wolves prowling, in all the horrors of a plague-stricken town.

Now, let us ask what these wonderful figures mean; it is interesting to trace the source of such a statement. Suppose that A B, aged 45, brewer's drayman, a person of intemperate habits, happens to trip over a loose stone and cut his shin, he naturally applies to the nearest hospital, where some student probably sees him, writes his name in a book, "A B, cut leg," applies a bit of plaster, and sends him away. A B returns in a few days; he wants some more plaster, and perhaps has cut his thumb. A B No. 2 is entered in the book by another student now on duty. He wants some aperient medicine, and is seen by the apothecary as A B No 3; but the leg still gets worse, and he is made out-patient A B No. 4 for one month; at the end of the month he is converted into A B No. 5, by a renewal of his letter. He, however, needs rest; the ulcer of the leg cannot heal while he walks about, so he becomes in-patient A B No. 6; and is discharged in a month, out-patient A B No. 7, to merge again, if necessary, into casualty A B No. 8.

If we were to divide the 224,603 out-patients and casualties at the aforementioned six hospitals by 8, the product would be 28,075⅜,—a number possibly more closely approximating the truth.

We mention these facts because statistics are queer things. If it be true, that six hospitals relieve annually nearly a quarter of a million of out-patients, a very much larger staff is needed; and if it be untrue, it is both undignified and unwise to continue the farce. For although truth cannot ultimately be wrecked, it is beyond the power of the wisest to tell on what shore a falsehood will be cast; and, although the motives for deviation from accuracy may themselves be innocent, or attributable to a pardonable vanity, there are plenty of sharp, evil-disposed persons, who will not hesitate to turn these white lies or twisted truths to their own advantage.

ROYAL COLLEGE OF PHYSICIANS.

Another letter from Dr. Hawkins, Registrar of the Royal College of Physicians, to H. Waddington, Esq., the Under-Secretary of State, has lately been sent to the Home Office.

Royal College of Physicians, May 2, 1853.

Sir,—I am directed by the President and Charter Committee of the Royal College of Physicians, to request you to present their acknowledgments to Viscount Palmerston for His Lordship's attention in causing copies to be transmitted to them of

1. A letter containing the observations of the Senatus of the University and King's College of Aberdeen, on the proposed New Charter of the College of Physicians.

2. A letter containing the observations of the same body on an alleged Medical Reform Bill.

On the first of these documents, the President and Committee do not think it necessary to address Viscount Palmerston at any length, because the observations which they had recently the honour of submitting to His Lordship respecting a letter from the Vice-Rector of the University of St. Andrews, are applicable also to this letter. But they are desirous of adding to the remarks then offered, that they are perfectly assured, that the clause which has been objected to in the proposed New Charter of the College of Physicians would not have the effect anticipated from it in this letter, viz., that "it would withdraw one of the strongest inducements which are at present held out to young men to pass a regular University curriculum of medical instruction," because it cannot seriously be contended that *young* men would be materially influenced in their course of education by the distant chance of obtaining admission, after the age of 40, into the order of Physicians, without having passed through the studies of a University. On the contrary, the "inducements held out to medical students to resort to Universities, would be greatly increased by the clause in the New Charter which forbids that any person should hereafter be admitted into the College without a regular medical degree, except in the case of Medical Practitioners of advanced years and unusual attainments, for whom it is allowed, on all sides, that some means of admission into the order of physicians must be provided. The President and Committee are so sincerely desirous that Physicians should be educated in the Universities, that they heartily wish the Universities themselves would abstain from granting degrees to those who have not had an academical education. Whereas, it is notorious, that some of the Universities, especially the Universities of Aberdeen and St. Andrews, have long been, and still are, in the habit, greatly to the detriment of the Medical Profession, of granting the degree of M.D. to persons who have had no previous connexion with any University, and whose curriculum of medical education has been inferior to that which the College of Physicians deems necessary for Physicians. This fact is candidly admitted in the letter from the University of St. Andrews, as it should have been also in that from Aberdeen,

for it is sufficiently clear, from the printed regulations of the latter University. With respect to the second letter, "on an alleged Medical Reform Bill," the President and Committee have no observations to offer, the Bill alluded to not being before them.

I have the honour to be, &c.,
FRANCIS HAWKINS, M.D., Registrar.

PROVINCIAL MEDICAL AND SURGICAL ASSOCIATION.

ON Tuesday, April 26, a meeting was held at the Devon and Exeter Hospital, for the purpose of receiving the Report of the Committee appointed by the South-Western Branch of the Provincial Medical and Surgical Association, to confer with the promoters of the Medical Reform Bill.

Mr. De la Garde having been called to the chair, said: I have convened this meeting with the entire concurrence of the Committee appointed by you at our last annual meeting to confer with the Central Committee who have taken in hand a Bill for Medical Reform. You have, doubtless, seen short editorial notes in our journal, leading you to this conclusion, that cordiality alone prevails between ourselves and the Central Committee. Our suggestions have been so gracefully received, our objections so blandly met, that you could not feel otherwise than satisfied; and you have, probably, said within your own hearts, "here is peace at last; differences end, all are agreed; they leap to anticipate each other's views—*les beaux esprits se rencontrent.*" Gentlemen, I must undeceive you. I have to announce, with deep regret, that the correspondence has been most unsatisfactory throughout. We found a Bill, the proper title for which would have been, "A Bill to authorise certain persons (to be nominated hereafter by some authority as yet undetermined) to levy on medical men sundry taxes, and to apply, or otherwise distribute, the proceeds of the said taxes in such manner as to them shall seem best, and for other purposes." I will not allow myself to entertain a doubt of the integrity and benevolence of those who framed that Bill; but such guileless men can hardly legislate for a hard-hearted and censorious world. I really doubt whether they were themselves aware of the oddity of their own scheme, until we drew their attention to this, its characteristic feature, for they gave it up at once. And here terminated the success of our negociation. Let me ask you to give your earnest attention to the Report which will presently be read, and more especially to the following subjects:—A registration, right in its general principle, but vexatious, harassing, and inefficient, is to be maintained. A scheme of education wholly unadapted to ordinary practice; a scheme which we feel certain will, at an early day, call unqualified persons into open practice, the penalties of this Bill notwithstanding; a scheme which will not so much as inquire whether any instruction can be given, save in Colleges, which are to have a monopoly of teaching that which we assert they are not qualified to teach. This is to be maintained. A Board, whose very inquiry will oppress, and, perchance, ruin the practitioner, whose merited success renders him an object of jealousy; but which will be wholly unable to cope with the supple Licentiate who adopts the fashionable delusion of the day; a Board which may suppress a failing, but which will itself quail before a thriving quackery. This is to be maintained. As regards the compnsition of the Council itself—the circumstances of medical men in the country differ so widely among themselves, and more particularly from those practising in London, that we thought a certain proportion of the Council ought to be derived from districts remote from each other and from the Metropolis. You will only render me common justice in supposing that I, for one, never contemplated that silliest of phantasies—a Medical Parliament, which has, indeed, found vehement partizans, but which must have resulted in our confiding our affairs to those in whom no patient would confide; but I do concur with others in thinking, that no bye-law should be passed, no course of instruction established, without consulting those eminent physicians and surgeons who are to be found here and there throughout the land, and whose daily, cordial, and most confidential intercourse with other practitioners—whose high position, and whose independence of those ordinary circumstances which make or mar our prosperity, would render them no less invaluable as advisers in the Council than as advocates and expositors of the wishes and requirements of their less distinguished,—perhaps, in some degree, of their less fortunate neighbours. In this matter some little concession has been made. Soft words, fond hopes; but no guarantee, no assurance;—we understand such blandishments. Let me entreat you, for the sake of those who come after us, to attend to another and a stranger regulation of this Bill. The candidate, after a collegiate curriculum, determined on all points by the sole authority of the Medical Council, will be required to appear before a Board of Examiners, appointed by that Council out of the College of Physicians and the College of Surgeons. By that Board he will be examined as to his fitness to practise medicine, surgery, and midwifery. From that Board he will obtain a licence (for which he will pay) declaring him fully qualified to practise those several branches of medicine. But this licence will not entitle him to practise without incurring all the penalties of the registration clauses, unless he be registered. Well, then, let him go to the Registrar, produce his licence, and tender his fee for registration. The Registrar's duty is to decline that fee, and to inform him that the licence acquired by his examination before the united Board of Physicians and Surgeons, under the authority of an irresponsible Medical Council, is worthless and invalid until he has undergone another examination, at which he may be declared incompetent, either at the College of Physicians or the College of Surgeons, the very bodies whose representatives in the Council's Board of Examiners have already pronounced him qualified to practise. I need not observe, that this is an unworthy device to extort a second fee. It was admitted to our Committee, when I was present, that this second examination is superfluous and indefensible except on the score of expediency. That it was necessary to conciliate the College of Physicians and the College of Surgeons, as those time-honoured bodies were found to stand too high in public estimation to be set aside by any Medical Council that is to be. I think those learned and influential bodies are quite justified in thus resisting any invasion of their rights. They simply perform their duty in defending that which they were constituted to defend; but recollect, the individuals who are hereafter to enter our Profession are to be the victims of this compromise. This vexatious and anomalous proposal is to be maintained. There are other and serious objections, but we are less personally concerned in them. Yet, in the face of our protest,—and bear in mind, gentlemen, all the principles of that protest were unanimously affirmed at our general meeting, last summer, in this very room, (when there were present sixty members, none of whom so much as knew that Medical Reform would be mentioned,—men from all parts of Devon and Cornwall, and of whom seventeen were practising Physicians,)—in the face of that protest, Lord Palmerston has been assured, that "the Bill had received an unparalleled amount of support"—"that it was warmly supported by a vast majority of medical practitioners throughout the Kingdom,"—a vast majority of those practitioners never having thought, or cared, one iota about the matter; and that, "in fact, no opposition had been made to its principles, though some exceptions might have been taken to its details." A curious and instructive example, how far a sanguine temperament may mislead a mind—kind, candid, and just, I will assume it to be—thus occupied by its own notions to the exclusion of all others. That there are anomalies in our Profession all must admit; though I suspect, as personal grievances, they rarely affect us. Still they ought to be corrected; but they will not be corrected by the present Bill, while they would have been by that of Sir James Graham. But his Bill, unhappily, comprised a gratuitous affront, which was resented by the mass of the Profession with startling unanimity. Instead of erasing the offensive part, (which was merely an excrescence attached to the Bill, and scarcely connected with it,) crochetty men interposed with their stupid advice, and soon made it so ridiculous, that its author, like a high-spirited gentleman, withdrew it in disgust,—never, we may fear, to be again revived. With the present authorities we have some cause to be dissatisfied. The College of Physicians refused, greatly to their discredit, to superintend the Profession when invited to do so; and so it happened, that the charge of directing medical education was assigned to a civic corporation in London. As regards the encouragement of medical science and literature, the College of Surgeons have amply redeemed every pledge by their museum, their library, and their lectures; but they have shown little sympathy towards the members of their College generally. Will the new Council show more? Will they not be powerful to annoy, and powerless to protect? Beware of change; remember King Log and King Stork.

Dr. Shapter having been called on to read the Report, explained that the Committee had been appointed at the annual meeting of the Association at Exeter, in September, to consider a draft Bill of Medical Reform, which had been published in the journal of the Association. The Committee had presented a report to the Council; and on the 10th of November an amended draft appeared in the Journal. On the 24th November the Report was also published there, accompanied by a remark from the editor, that the objections it contained had been met in the new draft. The Committee were not of this opinion, and had, therefore, drawn up another Report, which they now presented. Dr. Shapter then read the Report. After stating that the most objectionable parts

of the Bill appeared to be still retained, and that as the construction and management was now removed from the Association to Lord Palmerston, it was necessary that any objections should be submitted to His Lordship, the Report proceeded to enumerate the objections entertained, which were, in substance, as follow:—

"That the 3rd clause of the draft Bill is deemed objectionable, because, in the appointment of the Medical Council for England, no adequate representation of the provincial medical practitioners is insured, since it does not direct the appointment of any provincial medical practitioners. It would obviously be useful to the general interests of the Profession, that, perhaps not less than one-third of the members of the Medical Council should be selected (as equally and fairly as may be,) from among those medical practitioners who are resident in the various counties of the kingdom. This clause is also objectionable, from its entirely passing by all consideration of, and representation by, the Company of Apothecaries.

* * * * *

"That the 12th clause is objectionable, from its not sufficiently securing the monies to be derived directly from the whole mass of the Profession; these being, as the clause now stands, vested solely in the Council instead of in trustees thereto specially appointed, and separate from the Council and examining Board.

"That the 14th clause is objectionable, inasmuch as, while (together with schedule B) it confers the name and title of a 'Licentiate in Medicine,' and grants a 'licence to practise medicine,' with the express statement that the person so designated and so licensed is 'duly qualified to practice medicine,' both the title and the licence to practise are, by subsequent enactments of the Bill, practically set aside.

"That the 15th clause is objectionable, from its omitting to direct, previously to the commencing of the required collegiate education, some time or form of studentship, together with a matriculation examination, whereby the possession of a previous sufficient elementary medical and general knowledge may be insured. This clause is also objectionable, from its neither recognising nor giving any special privilege to the extensive means of education afforded by provincial hospitals, with the exception of those few to which 'medical schools' may be attached. The effect of this enactment and of these omissions cannot fail eventually greatly to retard the attainment of sound practical information, as well as to be prejudicial to the personal interests of the Profession at large. Medical education will thus be virtually, if not actually, transferred to the 'universities,' or 'medical schools,' to the subversion of that excellent and extensive means of practical medical instruction afforded by pupilage in provincial hospitals, and apprenticeship under private practitioners, which has so long existed, and which has mainly contributed to form the useful and intelligent class of medical men now practising throughout the country. Doubtless 'universities' and 'medical schools' are most admirably adapted to convey information in medical science; but they must not be deemed the only sources whence early medical information is to be obtained; and if relied on solely, or even mainly, will fail to produce a useful and practically instructed class of medical men, trained to those habits of business which, in the general private practice of this country, are no less indispensable to the success of the practitioner than to the safety and satisfaction of the sick he has in charge.

* * * * *

"That the 17th clause is objectionable from its peremptorily obliging those who have been examined and licensed by the Council (under the 14th clause) to undergo, in order to registration, a further examination by the College of Physicians or by the College of Surgeons; especially as the Bill in no way provides that these bodies shall be satisfied with the 'curriculum' prescribed by the Council as necessary to their own examination. Moreover, by forcibly obliging the 'Licentiate in Medicine' to attach himself to one or the other of these bodies, it subverts the usage of this country, which has established, both nominally and practically, three divisions of the Medical Faculty, namely, the General Practitioner, the Surgeon, and the Physician. Again, this clause is objectionable, from its omitting in any way to allude to, or to define the position of those who may, subsequently to the passing of this Act, have medical degrees conferred on them by the London or other British Universities, with the exception of those of Oxford and Cambridge. The degrees thus derived are treated by this proposed Bill, apparently as regards title, and certainly as regards qualification, as worthless; those holding them being actually disqualified from practice, unless they shall be registered under this Bill, which can only be after an examination by the Council, and by the Colleges of Physicians or Surgeons. On reviewing the whole bearings of this clause, it cannot but be regarded as anomalous and unjust; and, though its provisions may probably be a means of averting opposition to the Bill generally, on the part of the College of Physicians or Surgeons, by guaranteeing to these bodies their present, or an increased source of income, yet this will be done at the expense of the future candidates for practice.

"That the 18th Clause is objectionable, from its obliging Medical Practitioners annually to apply, and to pay for, the certificate."

The portions of the Report relating to the various clauses were then read over separately, and, after a few remarks, unanimously agreed to.

Mr. James moved as a rider to that part relating to the 17th Clause,

"That the meeting are of opinion, that, in dealing with the preceding objection, the purposes intended now would be much facilitated if the College of Surgeons were relieved from the burden of maintaining the Hunterian Museum, which they should still continue to superintend and govern as they have hitherto so ably done; and a very moderate assistance from the Legislature would provide for this."

Mr. Empson having seconded the motion, it was agreed to.

Dr. Shapter proposed a Resolution expressing the satisfaction of the meeting at the introduction of a measure for the due regulation of medical education, and requesting the Chairman to forward the Resolution, and the objections entertained against the proposed Bill, to Lord Palmerston.

The motion was adopted.

On the proposal of Mr. Empson, the following motion was also passed:—

"That Dr. Pennell, Dr. Shapter, Mr. Barnes, Mr. James, Mr. De la Garde, Mr. Pridham, Mr. Empson, Mr. Howard, and Mr. Kempe be appointed a Committee to watch the progress of the Bill."

A vote of thanks to the Governors of the Hospital for the use of the room terminated the proceedings.

GENERAL CORRESPONDENCE.

THE CHARTER OF THE COLLEGE OF PHYSICIANS.

[To the Editor of the Medical Times and Gazette.]

Sir,—Will you permit me to make the following addenda to my letter in your Journal of April 9, respecting the proposed Charter of the College of Physicians, and the state of the finances of that College. The information at the present crisis, I think, is very important.

In the Appendix to the Parliamentary Evidence, 1834 (Blue-book, p. 14), it is stated, that from 1830 to 1834, the income of this College was only 4115*l.* 16s. 5d.! the expenditure 4821*l.* 12s., the deficiency being supplied by the annual subscriptions of the Fellows.

From 1823 to 1832, 117 Licentiates became members of this College, paying 56*l.* 17s. each; but from this sum 24*l.* 15s. was deducted for the Government stamp, and for censors', registrars', treasurers', beadles', and porters' fees, giving an annual income of 375*l.* 11s. It may be important to observe, that, according to the same evidence (page 13), out of 134 who appeared at the Censors' Board for examination, from 1823 to 1833, only seven were rejected.

In 1831 the income of this College from all sources was 1099*l.* 17s. 9d.; the expenditure 1225*l.* 7s. 3d.

During the last two years beginning January, 1851, and ending December, 1852, twenty-three Licentiates and ten Extra-licentiates have been admitted, bringing an income from this source of 369*l.* 3s.

The Charters of the Veterinary College and of the Pharmaceutical Society are now before me. All the members of these bodies have equal rights and privileges,—elect their own councils, publish their annual accounts and proceedings; and in the former corporation, a requisition signed by twenty members will insure a general meeting to discuss any matter that may affect the welfare of the Profession.

If horse doctors and pharmaceutical chemists (so-called) have these privileges, let me, Sir, in sober earnestness, ask why they are denied to the more intelligent members of the Medical Profession.

I am, &c. Edwards Crisp, M.D.

Parliament-street.

[To the Editor of the Medical Times and Gazette.]

Sir,—In the angry letter with which Dr. Laycock, of York, has favoured you, he objects, *inter alia*, to the proposed new Charter of the College of Physicians, as not being "suitable for

any literary or philosophical Society,"—an objection which appears to rest on a mistake as to the nature and objects of the College, which neither is, nor ought to be, a mere literary or philosophical Society. The College of Physicians was founded for the purpose of admitting proper persons to the right of practising physic in London: of deterring and restraining therefrom the improper, and of punishing *mala praxis*. These purposes it cannot fulfil with its present Charter. It is no valid argument against the proposed new Charter, to say that it would not suit an Athenæum or Royal Society.

On such premises we might be called upon to condemn the constitution of a University or Court of Justice, or of any Institution founded, not for the mere comfort and advantage of the persons composing it, nor, solely, for the promotion of learning and science, but for the protection of society, by enabling the public to distinguish between the educated and uneducated, the good and the bad. To find fault with a thing for not being what it does not pretend to be, is a common and a plausible mode of attack. Yet it is an unfair one.

I am, &c. M. D.

THE LICENTIATES *EXTRA URBEM* OF THE "COLLEGE OF PHYSICIANS," *VERSUS* THE "COLLEGE OF PHYSICIANS."

[To the Editor of the Medical Times and Gazette.]

SIR,—I peruse the *Medical Times and Gazette* every week, but up to the present have not troubled you with anything for insertion in your Journal, and I therefore hope you will find room for this account in your Number for Saturday next, for you should insert both sides of the question. I have seen Dr. Hawkins's letter in your last as to the Charter and the Licentiates *Extra Urbem*, wherein he confesses the unjust attempt that was made on those Extra-licentiates having degrees, to obtain from them fifteen guineas, and his conscience has told him of the flagrant wrong he was inflicting. Seeing that he could not justify the attempt at extortion made on the whole body, he has very artfully endeavoured to reduce the sum of a part of the Licentiates *Extra Urbem* to five guineas, thereby indulging in the vain hope, that those having the degree will go over to the camp of the enemy and turn against their brother Extra-licentiates. But such is not the case; the Extra-licentiates are determined to have justice done to all, and the College will learn that "honesty is the best policy." Dr. Hawkins's remark, that "to other Extra-licentiates they do not think that the same remission ought to be extended, for reasons which have been already stated," is a most absurd excuse. What are the reasons already stated? It is said, "One reason is, that the large portion of the Extra-licentiates are not Graduates of any University, and have, therefore, never undergone the ordeal or expense of graduation, before receiving the letters testimonial from the President and Elects of the College." Now, I will give you my own individual case, which will in itself upset the reasons Dr. Hawkins gives for making such distinction between the extra-licentiates. I paid 24*l.* 18s. to the College of Physicians for my diploma, about 24*l.* to the College of Surgeons in London, and 10 guineas to the Apothecaries'-hall for their licence; and I am now coolly told, that I have not undergone the ordeal or expense that a Graduate has who has the extra-urbem diploma. Why, Sir, I have paid between 50*l.* and 60*l.* for the legal qualifications I now possess. I practise purely as a physician, and have never practised pharmacy; and yet I am to be called on by the very College of Physicians to which I am already attached to give a further sum of 15 guineas, exclusive of stamp-duty. And what am I to have for this sum? Why, the right of practising in London, and the honour of becoming a "Fellow,"—neither of which privileges do I wish for.

I was obliged to attend, two years extra, the daily medical practice of an hospital, in order to get the extra-urbem licence. Had I gone to Scotland, I could have saved that two years' attendance, and the sum of 150*l.* (at least) that it cost to be admitted a legally-qualified Physician; and I also had to wait until I was 26 years of age, and was precluded from being a general practitioner; whereas the Scotch M.D. can practise as he chooses, and has the degree of M.D. at 21 years of age!

Sir, I know you are an enemy to oppression and extortion, and, therefore, I believe you will not postpone the insertion of this statement, by which I hope to show to all Extra-urbem Licentiates the necessity for proving (by writing to Lord Palmerston) the injury, and, I think, I may say, robbery that is attempted by the New Charter. The Extra-licentiates ought all to be exempt from payment; but, Sir, if liberally treated, they would not one and all object to a small sum for obtaining a Charter; and unless we are so treated we must in a body oppose this Charter in every possible way, and there must be no division among the Licentiates Extra Urbem. We must all unite, and as you have, Sir, written upon this subject, I think it would be well, now that you know how we stand, if you would give us, in your leading article, a few remarks on our causes of just complaint.

I am, &c.

AN EXTRA-LICENTIATE OF THE COLLEGE OF PHYSICIANS.

MEDICAL REFORM.

[To the Editor of the Medical Times and Gazette.]

SIR,—I fear you have misinterpreted the tendency of my observations, made in reference to the Hull Medical Protection Association, and hasten to assure you, that nothing was more remote from my intention, or could be more repugnant to my feelings, than that of committing an act of "injustice towards a large class of highly-educated gentlemen." They were directed against a mischievous abstract principle in medical policy, and not against a respectable class, which suffers injustice and ridicule from negligent legislation, although numbering many who are ornaments to the Profession. After reading your estimable Journal weekly for the past seven years, it would be difficult to remain ignorant of the nature of the education and examination of the different Medical Corporations of England. What I complained of, in the letter which I had the honour of addressing you, was an attempt to compel an M.D. or surgeon in England with a diploma to become an apothecary, in order to practise the profession of medicine in a general manner; thereby imposing obligations of questionable advantage, if we consider the medical legislation and opinions of every other European country. A medical man's education in France is regularly defined,—liberal, in the first instance, and arranged so as to comprise all necessary medical knowledge. He takes out one solitary diploma, which is all that he has to trouble himself about during his life; and this one diploma legally entitles him to practise medicine, surgery, and midwifery, all over the French territory, the population of which exceeds 35,000,000. He is free, if he thinks proper, to devote himself to any special department. Why should not the education of an English practitioner be so planned as to insure for him analogous facilities, and, for society, equal security? A man in England scarcely knows when or where he is qualified; and he is incessantly exposed to perplexity and unexpected trouble; so much so, that the student would almost do well to place the direction of his studies, etc. etc., in the hands of an intelligent lawyer; and this state of things persists, although the tocsin of Medical Reform is eternally ringing in our ears. I am aware that a candidate for examination at the Hall must have received a liberal and sound medical education, and that a Licentiate receives a legal licence to practise medicine after an efficient examination; and therefore could not confound him with the apothecary or pharmacien of the Continent, who must be a *bachelier en lettres*, but whose professional education and examination are entirely and exclusively pharmaceutical, and who is limited by law to the pure practice of pharmacy. There is no analogy in their avocations; yet both receive the same title. The term "apothecary" was changed at the time of the first French Revolution, to the no less hellenic name of "pharmacien." It is also against such a mis-application of a name given to the English Practitioner of Medicine that I contend, which is unfair towards a highly respectable corps, and exposes them abroad to much misunderstanding and insult. Why does the Hall not seek to change its title, and obtain one more in harmony with its new position and the honour of its graduates? I recollect reading in the *Times*, a few years ago, a letter, signed "Spectator," which complained, as a hard case, of a gentleman, named Edmonds, having been fined in Paris for practising among his compatriots, although he had produced in court the licence of the Apothecaries Society. The title upon that occasion was not considered by the President of the tribunal sufficient to warrant a courtesy seldom, indeed, refused to English surgeons or physicians in France. Now, this is surely a hardship.

Having myself been admitted a member of the College of Surgeons, I am not ignorant of its curricula and the nature of the examination. Allow me to make an extract from a letter of mine on Medical Reform, which appeared in the *Medical Times* of June 19, 1847. "There are few surgeons whose practice is not almost entirely medical, particularly in the country. Pure surgical cases are the exceptions to general practice; and, even in the Army and Navy, in time of peace, the rule holds good. Yet the examination of the College of Surgeons is purely theoretical surgery and

anatomy. There is no subject on the table, as in France, to test the candidate's knowledge of either; and upon medical practice he is not asked a question upon which he ought to be examined in hospital. Yet that very department upon which he is not taken to task at all will constitute more than three-fourths of his practice during his life." To reform such abuses ought to be our ambition; and not, in the present anomalous condition of British medicine, to prosecute individuals on account of faults over which they have no control. I believe the only remedy is that proposed by the late Mr. Carmichael, of Dublin, namely, a standard system of medical education and examination, embracing all the branches of medical science. I am, &c. STEPHEN MORIARTY, M.D.

Dieppe, Faubourg de la Barre.

MEDICAL CHARGES.

[To the Editor of the Medical Times and Gazette.]

SIR,—Having invariably charged for visits, instead of medicine, since I commenced practice, I have had no reason to regret my determination to act as a professional man, and not as a tradesman.

My bills for last year amounted to nearly 1400*l.*, and only one complaint has been made, which an explanation satisfied. My charges vary from 5s. to 2s. 6d. a visit, including medicine, according to the circumstances of the patient. Thus, 5s. for a party in independent circumstances; if these are moderate, 4s. or 4s. 6d. is charged; 3s. 6d. for a tradesman, and 2s. 6d. for a labouring man. If two patients are seen at the same time, the same is charged for each in the first case, unless one is a child, when only 3s. 6d is charged. In the second case, 3s. 6d. is charged for each patient, unless the party be in small circumstances, as a clerk or petty tradesman, when 3s. each is charged. If a labourer has a large family, or be poor, then, instead of 2s. 6d. each patient, occasionally, when more than one has been attended at the same time, the sum of 2s. has been charged. These charges include applications, as argenti nitras, but not minor operations, and oiled silk and lint. My bills are sent in as one sum, and then the rate of charging is added,—so much a visit, including medicine.

I assure you, this plan enables me to practise my profession more agreeably, and perhaps successfully, as I place myself above suspicion of over-dosing my patients. My medicines are taken, and there is no quibbling about the frequency of my visits. I rarely send medicine without seeing a patient. If, however, such be the case, the same charge is made, as my prescription is required for it; second visits are charged at the same rate. It appears to me to be a great mistake to charge less for them. If any alteration be made, there ought to be an increase, as the practitioner has commonly to leave home after the labours of the day, solely on that patient's account who requires it.

I could write much of the inconsistencies, and I might also state occasional enormities, attending the charging for medicine. Often the public pay very high, at other times, as with children, frequently too little is demanded. My object, however, is not to attack others, but to show what can be done. I am convinced, that the charging for visits, besides greatly simplifying the work of the practitioner, eventually answers his purpose better, for he will keep his patients. The dispensing, too, is much more easy. I have as respectable a connexion as is usually met with, yet I never send draughts, and my mixtures are in green bottles.

The majority of General Practitioners are Members of the College of Surgeons, and have become so voluntarily, and not by force of law. By charging for visits, such will be doing his utmost to maintain the dignity of the College in accordance with their oath. A prevalent error is, to charge a small sum for a midwifery case, as 1*l.* 1s., which includes medical attendance and medicine for several days afterwards, as a week, which is virtually attending the delivery for nothing. The fee, unless proportionate, should be solely for the delivery. The law allows a General Practitioner to charge for medicine or attendance, but not for both, consequently he must make his choice. The maximum for attendance is 5s. Confidentially I enclose my card. I am, &c.

M.R.C.S.E. AND L.S.A.

THE LATE APPOINTMENT AT THE UNIVERSITY OF LONDON.

[To the Editor of the Medical Times and Gazette.]

SIR,—As you have unintentionally made some statements which are erroneous, in a leading article of your last number, headed "The Election of Examiner in Materia Medica in the University of London," I hope you will favour me by the insertion of this letter, in which those errors are pointed out. In your second paragraph you say: "It seems that four gentlemen inscribed themselves as candidates for the appointment." There were eight gentlemen who so inscribed themselves, namely, Drs. Garrod, Ballard, Royle, Dickson, Davies, Pitman, Lankester, and Rees. You state, in speaking of Dr. Rees, "he has further delivered the six lectures on Materia Medica at the College of Physicians." Dr. Rees never delivered any lectures on materia medica at the College. You state, that Dr. Rees "has done literally nothing in that particular department of medical science," &c., meaning the department of Materia Medica. Now, Sir, had Dr. Rees done nothing else, he ought to stand high in the estimation of the Profession and the public for having discovered the remedial powers of lemon-juice in rheumatism, now extensively employed throughout Europe and America. Dr. Rees has, however, written a paper, in the *Philosophical Magazine*, on the hydrates of magnesia. In his Gulstonian Lectures he has enlarged on the therapeutical action of salts of iron in anæmia, as also on the action of endosmosis on the blood corpuscles; while, in the *Medical Gazette*, he has written a paper on the existence of arsenic in the officinal sulphuric acid, and another on copaiba and cubebs as affecting the urine, and simulating albuminous urine by its oleo-resinous matter. You will, I think, in candour, admit, after this enumeration, in which I have purposely confined myself to subjects connected with materia medica and therapeutics, that Dr. Rees cannot fairly be said to have done literally nothing in those departments of medical science. Among the merits of Dr. Garrod, you justly mention his having been selected to edit Thomson's "London Dispensatory." Perhaps you are not aware, that Dr. Rees had been previously applied to, and, declining the task himself, was actually consulted respecting Dr. Garrod's fitness to undertake it, and recommended him as a gentleman fully qualified to do so. Still, as an equivalent to this compliment paid to Dr. Garrod, I may mention, that Dr. Rees is now employed in completing the new edition of Pereira's "Elements of Materia Medica,"—a work which will bear comparison, in point of importance, even with Dr. Thomson's excellent "Dispensatory."

To defend the Senate of the London University is no business of mine; I should consider it the height of presumption to attempt it. As respects Dr. Rees himself, however, I can state, that he did not solicit the vote or interest of any individual member of that body; and further, that he did not send in any testimonials, as several other candidates, in my opinion, with perfect propriety, did. It will not, I presume, be charged as any fault on his part, if his friends did all they could to serve him. I take it for granted, that the friends of every other candidate did the same.

London. I am, &c. ÆQUITAS.

[Our article was dictated in no unkindly spirit to Dr. Rees, whom we believe to be a highly-accomplished Physician, though without any such extraordinary claims to the appointment he has obtained as to warrant the Senate in setting aside the claims of two of their own highly distinguished Graduates. If, as our Correspondent suggests, the friends of the other candidates canvassed the Members of the Senate, we can only say, that we think the conduct of these meddlesome friends deserving of reprobation.—ED.]

PULVERMACHER'S CHAIN.

[To the Editor of the Medical Times and Gazette.]

SIR,—Allow me to thank you for your Leader on "The Testimonial System," in the *Medical Times* of April 2, containing, as it does, much that the members of our Profession ought to observe and profit by. You say, "The public read in the newspapers long puffs of Dr. M., and they read, in the same newspapers, his trumpery testimonials, and then, after a while, forget that the Doctor wrote all these glowing eulogies on himself, and paid the proprietors of the newspapers for publishing them." The conduct of Dr. M., in thus acting, we all know how to estimate; the more readily that, in the vast majority of such instances, the Doctorate has been conferred by the Senatus of the University of their own inventive imagination; and it is not surprising, as the world goes, that Dr. M., or any of his fraternity, should find newspapers unconnected with the Profession, open to the insertion of their puffs.

The papers are conducted and published with the view of getting money; and, if Dr. M. ministers to their wants in this way, his advertisements meet with a ready insertion. But it is quite a different thing when medical newspapers descend to such traffic, even when conducted as commercial speculations. The honour

and respectability of the Profession ought to be too dear to them to be sacrificed at the shrine of pelf; and I, in common with many others, have felt how much we are indebted to you for your endeavours to maintain that respectability.

I am sure, therefore, that your attention has only to be drawn to any, of course, overlooked abuse of this kind, by yourself, to have it immediately rectified; and I therefore would bring to your notice Mr. Meinig's advertisement of "Pulvermacher's Hydro-Electric Chain Batteries," which appears at intervals in your pages, and to which you make reference in the Leader alluded to.

It appears, that Dr. Bird gave a certificate as to the ingenuity displayed in its construction, as an electrical instrument. A detached sentence of this certificate has been published in the advertisement to bolster up the assertions of Mr. Meinig, as to its wonder-working powers as a therapeutic agent, which Dr. Bird denies its possessing altogether; and this, moreover, is said to be published with Dr. Bird's "kind permission," while it is done in open defiance of his repeated remonstrances.

As corroborative evidence of the truth of what I state, I beg leave to refer you to a letter of Dr. Bird's, published in a Leader in the *Association Journal* of the 15th April; and, with that before you, I trust you will evince your interest in the welfare of the Profession, and the cause of truth, by refusing it a place again in your pages. I am, &c. JOHN M'INTYRE, M.D.

Odiham.

[The Advertisement referred to was inserted in this Journal without any knowledge, on our part, that Dr. Bird's name had been improperly used. We beg to inform Dr. M'Intyre, that directions have been given to refuse insertion to Mr. Meinig's advertisements of Pulvermacher's Chain for the future.—ED.]

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Dr. COPLAND, President, in the Chair.

ON THE TREATMENT OF OBSTINATE STRICTURES OF THE URETHRA BY EXTERNAL INCISION UPON A GROOVED DIRECTOR.

By JAMES SYME,
Professor of Clinical Surgery in the University of Edinburgh.

The author apologised for bringing the following communication before the Royal Medical and Chirurgical Society of London, instead of publishing it through the ordinary channels; but, in the firm belief that he had devised an easy, safe, and effectual method of affording relief from one of the most obstinate and distressing infirmities to which the human body is liable, he preferred the present course, in which he could personally explain, if necessary, any misapprehensions caused by the complicated repetitions of errors, often tinctured with the acrimony of personal hostility. "There are certain forms of stricture, which resist the hitherto established means of treatment, and seem to require some other remedy. In one form, the stricture is distinguished by an extreme degree of irritability, resenting attempts to effect dilatation; in another, the stricture, when dilated, speedily contracts; in a third, the stricture, though susceptible of dilatation, still continues to render the evacuation of urine painful, difficult, and uncertain." For these three forms of disease the only treatment hitherto recommended has been threefold,—dilatation, caustic, and internal incision. All have proved insufficient to relieve an affection the distressing nature of which is illustrated by the will of the late M. d'Argenteuil, who bequeathed funds sufficient to give, at stated periods, a prize of 500 francs for the best practical improvement in its treatment. The author was prepared to maintain, that in these cases a free division of the contracted part of the urethra was essentially required. For this purpose a grooved director must be introduced,—and this could always be effected with time and patience; the patient being then placed upon his back at the edge of a bed, with the knees held up, an incision about an inch and a half is made exactly in the raphe of the perinæum, sufficiently deep to allow the director to be felt, when a knife is introduced into the groove, and the whole thickened and contracted portion of the urethra is divided. A No. 8 silver catheter is then introduced into the bladder, and retained there for at least two, and not more than three days. The operation, though simple, requires great care that the knife should be kept exactly to the mesial line. The Parisian Imperial Academy of Medicine, in awarding the Argenteuil prize, in September last, to M. Reybard, for extending the plan of internal incision, fell into an error in stating, that "whatever be the form of the stricture, the incision ought always to be directed laterally, so as to avoid the artery of the bulb placed below." Such a line of incision would most assuredly lend to the very accident. The author proceeded to express the extreme surprise which he had felt upon hearing, that a London surgeon had, in a large hospital, attempted the operation professedly upon his principles, but forgetting the grooved director. This gentleman tried to divide the stricture upon a silver catheter. In such a manner—as the author affirms—it is impossible to make a straight continuous incision. Then the catheter, instead of being retained only two or three days, was kept in the bladder six weeks! There is very little bleeding at the time of the operation, and it can be readily stopped by pressure. There is no danger of extravasation of urine, there being no openings in the deep fascia, and the obstruction in the anterior part of the urethra being removed. The patient, upon awaking from his chloroform sleep, suffers so little pain, that he can scarcely believe the operation completed: he finds himself in bed, with the catheter fixed in the bladder, and all difficulty in making water removed. The diet should be chiefly farinaceous. At the end of forty-eight hours, the catheter is usually removed. A curious train of nervous symptoms is apt occasionally to ensue: they are alarming both to the patient and to his friends, but, as far as Mr. Syme knows, are free from danger. They consist of rigors, bilious vomitings, and delirium; coldness of the extremities, and suppression of urine. In a little time, they disappear, so that the best cordial is the Surgeon's assurance, that the disturbance is only temporary. If the water flows through the proper channel, recovery may be said to be complete in the course of a few days. When the urine escapes by the wound after the catheter is withdrawn, it continues to do so for eight or ten days, and then, diminishing to a few drops, speedily resumes its natural course. A full sized bougie should then be introduced once or twice a week for two or three weeks, and then at more distant periods, according to circumstances. The author then related some cases to show how stricture of the urethra occasionally presented itself in forms which resist the hitherto established means of treatment; secondly, that strictures of the urethra deemed impermeable may, through time, admit the introduction of instruments; thirdly, how a free division of the thickened and contracted part of the canal by external incision upon a grooved director, affords complete and permanent relief in the most distressing and obstinate conditions of the disease.

Case I.—About twelve years ago the author was requested by the late Dr. Hay, of Edinburgh, to take charge of a gentleman suffering from stricture. It had existed upwards of twenty years, and admitted during that period of palliation by the use of bougies. Latterly the symptoms had become much aggravated. Day and night the calls to make water were almost incessant, and there was often involuntary discharge of urine, by which the clothes were kept wet and offensive. Catheters were introduced up to No. 5, but then further dilatation became difficult. Confinement to bed was next ordered, and then the largest sized instrument was introduced; but contraction of the canal soon returned as before. Internal incision was then freely tried by the late Mr. Liston, so that the catheter could be freely passed; but again the stricture formed. Ultimately, he submitted to the external incision of the urethra by Mr. Syme, and from that time to this, more than ten years, he has continued well.

Eleven successive cases were related after this, all equally satisfactory in their results. Mr. Syme, in conclusion, trusted that the cases here related would be sufficient to illustrate the advantages of his mode of treatment. It was quite possible that he might have attached to it greater importance than it deserved; but he trusted the Society would give him the credit of good intentions in bringing it before their notice.

Mr. Wade said, that having, during many years, paid considerable attention to the treatment of urethral stricture, he should venture to occupy, for a short time, the attention of the Society, by making a few observations on the important communication which had been just read. Every surgeon conversant with the treatment of the more intractable forms of urethral obstruction, must hail with satisfaction any method which appeared likely to extend his means of affording relief in such cases. Among the measures which were sometimes adopted in the more intractable forms of urethral stricture, was that of external division or perinæal section, which, previous to the publication of Mr. Syme's work on this subject, had been regarded as a very formidable operation, and, consequently, resorted to, with but rare exceptions, only in strictures which were impermeable by instruments in the hands of skilful surgeons. The exceptions were—obstructions produced by cicatrices, resulting from laceration of the urethra. Mr. Syme's method of performing this operation was not new, for Sir B. Brodie

had long ago recommended the adoption of the very same proceeding in traumatic stricture, when the contraction would not yield to ordinary treatment. Sir Benjamin observes, that in such cases a small staff is to be introduced into the bladder, and the cicatrix of the urethra divided by an incision from the perinæum, a gum catheter being introduced afterwards, and allowed to remain until the wound is healed over it. Mr. Syme's novelty with regard to this operation was the great extent to which he had practised it in cases in which scarcely any other surgeon would have considered himself justified in submitting a patient to such a proceeding. He thought it of the utmost importance that the effects of Mr. Syme's operation should be thoroughly investigated; the investigation should be most searching, otherwise the high position of its zealous advocate, by inducing less experienced surgeons to resort to it in cases which admitted of relief by safer means, might cause an unnecessary sacrifice of life. There were two points, with regard to the operation, which it was especially desirable should be ascertained: first, the hazard incurred by the patient from its performance; and, secondly, the question as to the relief likely to be derived from it. From Mr. Syme's account, a patient suffering from the very worst kind of stricture might suppose that he had merely to inhale a little chloroform, fall into a gentle slumber, and, at the cost of only a trifling incision in his perinæum, and the loss of not more than two or three teaspoonsful of blood, would awake completely free from an enemy that had tormented him for years. But far different had been the results of the same proceeding in the hands of other surgeons with whom, when had recourse to in London, it had proved nearly, if not quite, as fatal as lithotomy. The causes of death had been constitutional shock, and phlebitis, or purulent infection. Hæmorrhage had also occurred, in one or two instances, to such an extent as to excite serious alarm. Abscesses had also been produced by urinary infiltration, leaving fistulous openings in the perinæum. It had been said, that the fatal results were entirely accidental, and ought not to be ascribed to the operation itself; but phlebitis, or purulent infection had certainly happened too frequently to be considered merely as mere chance occurrences. When the diseased state of the parts to be incised was considered, as well as the frequently long-continued sufferings of patients to be operated upon, many of them being confined in hospitals, the occasional occurrence of phlebitis or purulent infection could scarcely excite surprise. There was a great question whether the stricture could not return even after the performance of Mr. Syme's operation. Mr. Fergusson had informed us, that, in his best case of Mr. Syme's operation, the stricture returned, the patient being obliged to come to London again to have it dilated. Mr. Wade observed, that Mr. Syme's success had certainly been remarkable, and could not be altogether attributable to his great skill as an operator. He thought, however, that the operation was open to serious objections, one of which was its inadequacy to relieve the worst kind of urethral obstruction. Mr. Syme, indeed, asserted, that no stricture was impermeable in his hands; but he (Mr. Wade) thought that, though a small instrument might be passed into the bladder, yet there was no proof that it traversed the natural passage. After offering some observations on the efficacy of potassa fusa in obstinate cases of stricture, Mr. Wade resumed his seat.

Mr. Solly considered that the Profession were under obligations to Mr. Syme for having brought forward such a complete series of successful cases in illustration of this operation, as it showed us that the operation was not attended with the amount of danger which was generally supposed. It would, however, be interesting to the Society to know what had been his success in hospital practice, and also something of the relative proportion of cases in which the operation was required; for he was afraid that the junior members of the Profession might be led away with the belief, that the operation was so harmless and successful, that it might be applied to almost all cases. He (Mr. Solly) was convinced,—and he spoke from above thirty years' experience at a large hospital,—that there were very few cases which the careful use of the bougie would not cure. That he had been in the habit of using very small thread catgut bougies for many years past, and that he scarcely ever met with a stricture which could not be overcome by patience and perseverance. He had found the plan recommended by Mr. Thomas Wakley, of a urethra guide and tube, very useful in expediting the cure, but he employed the elastic tube in preference to the silver one. Many plans had been proposed and advocated in that Society for the relief of intractable and impermeable strictures,—such as puncturing the bladder through the rectum, and opening the urethra posteriorly to the stricture; and he believed that each plan had its advantages in particular cases; but, though it was very important not to be wedded to any particular system of operation to the exclusion of any other, it was still more important to employ as much as possible the dilating method in preference to the use of cutting instruments, however skilfully they might be handled.

Mr. Coulson said, that he had listened with much pleasure to the clear statement of Mr. Syme relative to his method of treating stricture by the perineal section, and he could not avoid complimenting him on the step which he had taken in thus bringing personally before the Society the important subject of stricture and its treatment. The treatment of stricture by incision was not a subject entirely new to the Society. In the year 1811, Mr. Chevalier pointed out to the Society the advantage of freely dividing the diseased integuments down to the urethra, but he confined this practice to cases of stricture complicated with perineal fistula, and more especially to those arising from external violence. In the year 1822 a very valuable paper by Mr. Arnott, on the treatment of stricture by external incision, was read before the Society, and the views which he brought forward appeared to him (Mr. Coulson) very sound. Mr. Coulson specified what was the peculiar treatment advocated by Mr. Arnott, and to what cases it was especially adapted. The same mode of treatment was taken up in the following year by the late Mr. Shaw, who did not consider the operation severe, and confidently affirmed that it was not difficult. He agreed with Mr. Arnott in thinking, that the operation should be performed more frequently than it had been, and before the tissues about the stricture had become completely disorganised. He (Mr. Coulson) mentioned these facts merely to show, that the subject of perineal section was not altogether novel to the Society, and that if distinguished Fellows of the Society had not hesitated to recommend a certain manner of operating on the urethra, there could not be much temerity in now advocating another method, which was undoubtedly more safe, more easy, and more expeditious. It appeared to him (Mr. Coulson) that the question now under discussion might be reduced within narrow bounds. Were there any cases of stricture in which all the usual and ordinary means of treatment failed? Every candid surgeon must answer in the affirmative. And was the surgeon to abandon such cases to their fate, or to have recourse to some effectual means of relief? For his own part, bearing in mind the well known and inevitable consequences of severe stricture if left to itself, he should not hesitate to adopt any reasonable plan of affording relief and preserving life, and this plan he believed would be found in the operation recommended by Mr. Syme. The chief question, then, which remained to be determined, was the class of cases to which perineal section should be applied. According to present experience, he thought the operation should be limited to three descriptions of cases. The first class to which he would apply the method comprised those cases of old and indurated stricture, where the urethra was all but obliterated by chronic inflammation of the mucous and sub-mucous tissues. The next was very similar to the first one, mainly differing from it in the severity and extent of the secondary changes that had taken place; for, in the cases which it comprised, not only was the urethra involved, but the submucous and spongy tissues were more or less indurated, and the disease complicated with inflammation, abscess, or perhaps with fistulous openings in the perinæum. Nearly all surgeons would agree that the ordinary mode of treatment by bougies was totally useless in the two examples just mentioned; also, that they did not admit of being radically cured by caustic applications. The intractability of these cases was explained by the fact, that the lesions were seldom, if ever, confined to the lining membrane of the urethra. The submucous tissues immediately surrounding the strictured points, or even at some distance from them, were converted into a dense fibrous substance of great resisting power. In other instances, the tissue was almost cartilaginous, or the mucous and submucous tissues confused together into a hard and compact mass, incapable of yielding to dilatation. But the effects of old stricture did not stop here; they extended into the spongy body, portions of which were converted into dense fibrous or ligamentous substances, irregularly glued together, and either producing almost complete obliteration of the canal, or causing it to deviate in a tortuous manner. These effects were best seen in cases of traumatic stricture, where the contraction was long, and the walls of the urethra, from severe inflammation, had been converted into a hard mass or into a ligamentous tissue, which, though not so dense, was just as unmanageable, from its extreme tendency to contract after dilatation. Now, most surgeons would agree, that examples of disease like those to which he had referred admitted of no other treatment than by the knife. He now came to the third set of cases to which he would apply Mr. Syme's operation. In this class the stricture occupied the bulbous portion of the urethra; the tissues around were converted into a fibro-elastic substance, and were resilient in an extreme degree. Hence the stricture yielded easily, but perpetually returned; it was temporarily relieved, but never permanently cured. Attempts at dilatation were frequently fol-

lowed by constitutional disturbance, or by retention of urine; cauterisation was of no avail, and he must confess that he saw no other surgical means on which the practitioner could fall back except the method for the introduction of which the Profession was indebted to Mr. Syme. He would now offer a few remarks on the safety and efficacy of the operation, for it must be evident that, with all its other advantages, no surgeon would be justified in having recourse to it, if it were attended with imminent risk to life, or, if it did not hold out a reasonable hope of proving permanently useful. He (Mr. Coulson) had lost a case from purulent infection; but this condition might arise after any operation, and had been known to occur even after passing a bougie; it could not, therefore, be regarded otherwise than as accidental complication. The chief danger to which the operation of itself exposed the patient, was hæmorrhage, and a case had occurred to him in which very serious hæmorrhage took place; generally speaking, however, it was not difficult to deal with, provided it was fairly encountered at once. How far the operation might be depended upon as a means of permanent cure could only be decided by long and extensive experience. Even its originator spoke cautiously upon this point, and, as far as his (Mr. Coulson's) own experience enabled him to speak, he must say that the operation did not obviate the necessity of carefully watching each case, under the apprehension of relapse, and of employing the bougie from time to time, whenever any symptoms of incipient contraction manifested themselves.

Mr. Thomas Wakley offered some observations relative to the omission of the names in the cases detailed by Mr. Syme, which he seemed to think ought to have been given.

The President remarked, that Mr. Syme had furnished the names of all the patients whose cases had been read; but that he (the President) had directed that they should be suppressed. He thought Mr. Wakley's remarks were out of order.

Mr. Henry Smith, on rising, begged to apologise for addressing the Society when there were so many of his seniors present; but he considered it a duty for those surgeons who had had any experience of Mr. Syme's operation to give the results. It had fallen to his lot to be engaged in several of such operations, and the results were most certainly of a character not very favourable. One of the cases was that which had been referred to by Mr. Coulson, who had done him the favour to ask his assistance in the after-treatment. Hæmorrhage to an alarming extent occurred, and placed the patient, a fine young man of 25, in the most critical condition. Another case he should mention bore more particularly upon a point which had not been alluded to by any previous speaker, viz., the re-contraction which took place some time after the operation. This patient, who is an officer in the navy, was operated upon, in 1848, most successfully. He used the bougie himself from time to time, as a precautionary measure, for a year; and during that period he remained well; but after this he neglected himself; and he (Mr. Smith) saw him in September, 1851, when some of his most troublesome symptoms had returned, and he was only enabled to pass a No. 3 bougie for him. He continued under treatment until the urethra was pretty well opened up again. It was only a few days ago that this same patient came to town again for the purpose of having instruments passed, as the urethra had re-contracted. Now, this case proved, that the disease did return after the stricture had been divided by external section. However, he was bound to say, that this patient had obtained immense relief from the operation, and that he had expressed himself very grateful for this relief. With reference to the fatal effects of the operation, he was sorry to be obliged to tell the Society, that two deaths from it had fallen under his own observation; and, in one of these cases, no assignable cause whatever could be discovered for the untoward event, on *post-mortem* examination. The patient was a fine healthy young man, and the operation had been executed by a surgeon of well-known operative skill.

Mr. Gay said, he would not apologise for rising to say a few words in reference to the interesting paper that had just been read. He ventured to express his opinion, that Mr. Syme had acted wisely in bringing the subject of his proposed operation for stricture before that tribunal. Its discussion had given occasion for the display of much acrimonious feeling, although he (Mr. Gay) had throughout observed, that that feeling had arisen out of matters altogether foreign to the question of external incision for the relief or cure of stricture. He deeply regretted that such feelings had been excited, because they were ever inimical to the advancement of science; and trusted that, whatever might have been their cause, from this moment they might be entirely forgotten. Much had been said of the dangers attendant upon the operation proposed by Mr. Syme, and it had been reported to have been on several occasions fatal. Mr. Gay did not think that it was to be cast on one side on this account; as a certain amount, though variable, of risk attended the performance of all the important operations of surgery. The question arose, whether the experience of those who had fairly tested its merits was such as to lead with confidence to its adoption in cases of stricture in which milder means were of no avail; and he trusted that, if a doubt remained, the Profession would apply themselves calmly and honestly to its settlement. From what had been said that evening, there appeared to be a great discrepancy between the results of the operation, as far as they have been observed in Scotland and in England. The author stated, that in seventy cases in his hands the operation had succeeded, and not one life had been sacrificed. He had, moreover, brought forward twelve cases as illustrations of that success, whereas, in London, the operation, in some instances, failed in being of any service, and in others it had proved fatal. Why this discrepancy? Mr. Gay thought it admitted of ready explanation. The cases brought forward by Mr. Syme were all of persons in the middle and higher ranks of life, and therefore well prepared, in every respect, to bear operations. Those persons, on the other hand, who had been operated upon in London, were from a humble sphere of life, and less able, from the constitutional tendency generally acquired by them to hæmorrhage, purulent infection, fever, and other sequences of a severe operation, to bear up against it. He, therefore, quite agreed with Mr. Solly in thinking, that the Fellows of the Society would be better able to arrive at a correct decision on this subject if they had laid before them the result of Mr. Syme's experience of this operation in his hospital practice. One of the cases brought forward by Mr. Syme was well known to himself. The operation was performed several months since; and very recently he (Mr. Gay) had ascertained, that the patient was perfectly free from all those symptoms and discomforts arising from a stricture, in an unusually irritable condition, which he had for years suffered under. He felt it due to Mr. Syme to state so much of this one case that had come under his immediate observation. He hoped, also, that Mr. Syme would, in his reply, favour the meeting with an account of the kinds of stricture for which, according to his experience, the operation is *not* suitable. Before the meeting adjourned, perhaps Mr. Syme would inform the Fellows whether he had made use of his operation, and could recommend it, in those cases of gristly stricture in which the urethra was narrowed for *a considerable distance*, by masses of indurated tissue, so considerable as to be very distinctly felt along the perinæum?

Mr. Syme begged to express his grateful sense of the kindness with which his communication had been received, and also the extreme satisfaction he had felt, from the tone and temper with which the subject had been discussed. It was peculiarly gratifying to him, that two gentlemen, who had devoted so much attention to the treatment of urethral disease as Mr. Coulson and Mr. Gay, should express sentiments so favourable to his proposal. He cordially participated in the wish of the latter gentleman, that, for the future, the treatment of stricture by external incision should be discussed solely with reference to its own merits, and entirely free from personal considerations. For his own part, he had always been desirous to avoid saying anything personally offensive, and he was not aware of having ever done so. But if a single word or expression could be pointed out to him as admitting of such a construction, he would be most willing, and, indeed, anxious to withdraw it. He hoped the Society would no longer regard the operation he had proposed as a formidable gash of the perinæum, rivalling the wound of lithotomy, and exposing the patient to danger from hæmorrhage, as well as extravasation; but, on the contrary, distinctly understand, that it was an incision always anterior to the bulb, and, therefore, implicating a very inconsiderable thickness of parts, which might be cut with perfect safety. The unfavourable results of the operation in London was rather a delicate subject for him to enter upon, as he could not avoid attributing them to a want of due attention to the points which he had endeavoured to establish as essential for safety and success. If the contraction were not fairly divided, there would be a risk of extravasation, even with the protection of the catheter; and if the knife were allowed to glide past the conductor, it might readily cut the artery of the bulb, in which case plugging the wound would become requisite, with a great additional risk of extravasation. In short, he believed that the operation, if correctly performed, was perfectly safe, but, through a very slight deviation from accuracy, might place the patient in the greatest danger. He had been informed, that, in one of the London hospitals, a small silver catheter had been employed as a guide for the knife instead of a grooved director, and he was not surprised at the results proving unsatisfactory. As to the case operated on by himself in Edinburgh, and published by Professor Miller as an escape from extreme danger, he believed that the nervous symptoms described in his paper had imposed upon Mr. Miller, who, so far as he knew, had had no further experience of

the operation than this single instance which he had witnessed as the family attendant. He did not believe that there had been the slightest ground for serious apprehension in this case; and as the patient, after being for years under the treatment of Mr. Liston without relief, had been restored to perfect health by the operation, he thought that, instead of being quoted as an objection to the practice, it should rather be regarded as a very favourable example of success. With regard to the results of his hospital experience, he could assure the Society that they had been in no wise inferior to those which the Fellows had heard already. He had, however, preferred relating cases from private practice on account of the greater facility of reference. He could also assure the gentleman who put the question as to the proportion of cases in his practice treated by dilatation and incision, that the latter bore a very small ratio to the former.

MEDICAL SOCIETY OF LONDON.

Dr. Tyler Smith, Vice-President, in the Chair.

CAT-HEAD MONSTER.

Mr. Dendy exhibited a small portion of the umbilical cord of a monster of which one of his patients had been lately confined after seven and a-half months' pregnancy. The head bore some resemblance to that of a cat; the liver was enormously large, filling almost the whole abdomen; while the small intestines were much contracted, and like coils of whipcord. The cord exhibited, as usual, two umbilical arteries, but no umbilical vein could be discovered, after careful inspection, either by Mr. Dendy or some other gentlemen who searched for it. There was a red, bleeding pulp, which covered the spinous processes of the vertebræ. The quantity of liquor amnii was extreme, amounting to almost two gallons. Mr. Dendy offered some remarks on the case, observing, that the apparent absence of an umbilical vein, and the large quantity of liquor amnii, seemed to justify the opinion entertained formerly by physiologists, that the fœtus was nourished by the liquor amnii. In the present instance, indeed, there appeared to be no other way in which it could have been supported.

Dr. Barnes remarked, that it was impossible to declare, that the monstrous fœtus in Mr. Dendy's case had been nourished by the liquor amnii, because no minute dissection of the cord had been made, and, consequently, there was no clear proof of the absence of an umbilical vein. Possibly one of the two "arteries" might have been found, on examination, to have supplied the place of the vein.

Dr. Tyler Smith said, that the abundance of liquor amnii could not be accepted as a proof that the fœtus had lived upon that fluid, because such abundance was a feature peculiar to all monsters. He should like to ask Mr. Dendy whether the placenta was fully formed and developed, and also whether there were any traces of brain or spinal cord in the monster.

Mr. Dendy said, the placenta exhibited the appearance and structure usual to that formation, but he was unable to state the precise conditions of the nervous centres, as his opportunities for examining the monster had been limited and incomplete.

CANCER OF THE HAND.

Mr. Weedon Cooke showed an example of cancer of the hand, for which amputation of the forearm had been performed. The patient was an old man, and had suffered much from the disease. In the course of the operation a large vein was divided, which bled so freely, that it was found necessary to tie it. In consequence of this, phlebitis was set up both in the stump and also in one of the legs. The attack, however, subsided under treatment, the man made a favourable progress, and has since been doing well. Mr. Cooke said, that the supervention of phlebitis on the deligation of a vein, and the recovery of so old an individual from a serious operation, were interesting features in the case; the one showing, that veins could not always be tied with impunity; and the other, that, with the aid of chloroform, operations of considerable severity might be performed on old people with every prospect of success; whereas, before the introduction of that anæsthetic, it was well known that such proceedings were generally rejected by surgeons on account of their almost uniform failure.

Dr. Tyler Smith said, he hoped that he was not out of order in asking Mr. Cooke whether, at the Institution with which he was connected, any cases of cancer had been cured, as was currently reported, by medical treatment. He asked the question solely in consequence of the extreme importance of the subject.

Mr. Cooke replied, that he had not seen any cases cured by such means.

ON THE QUESTIONABLE UTILITY OF TRACHEOTOMY IN THE TREATMENT OF ANY KIND OF EPILEPSY.

In order to arrive at the object of his paper, the author depended chiefly upon a critical examination of the cases of epilepsy in which tracheotomy had been practised, and to this examination he at once proceeded. In Mr. Cane's case, the patient was a boatman, aged 24, who had been epileptic for seven or eight years. The fits were severe and frequent. The operation was performed during a fit, in consequence of a state of asphyxial coma that had lasted for nineteen hours. The relief was immediate, and no fits have followed the operation. The habits of the patient were very irregular and intemperate, and he was discharged from his employment on this account about ten months ago. The tube is still worn, and, curiously enough, it is worn with a cork in the opening. In Mr. Anderson's case, the patient was a stout, thickset female, aged 36, the daughter of an epileptic father, and herself epileptic for twenty-four years. Her complexion had been ruined by the former use of nitrate of silver. The operation was performed in March, 1851, and the tube worn until her death, which happened in a fit about four months ago. After the operation, the fits continued as before, possibly a little less frequently and severely, but decidedly of the same character. Her health and spirits are also said to have undergone some slight improvement, and she lost a numbness in the right arm which had previously distressed her; but those who knew her best, doubt the existence of any appreciable change of this kind until about two months before her death, sixteen months after the operation. The notes of the final seizure are from Mr. Anderson: "8 a.m.—The patient had been up and dressed, when she was heard to fall heavily. A woman removed the inner tube from the trachea, as she was in a fit apparently more severe than usual. She 'snorted loudly;' the nails became of a deeper colour. She was placed on a bed, as the woman thought she would recover as usual." The woman herself says that the patient was black in the face, and violently convulsed, and that death must have taken place within ten minutes. The body was examined twenty-four hours after death, and the following are the particulars supplied by Mr. Anderson:—"*Body* extremely muscular; cadaveric rigidity still present; not much fat. *Head.*—Vessels of scalp much congested; skull thick, and dura mater so universally adherent, that the skull-cap could not be removed until the dura mater was divided. The sinuses were filled with dark blood, and, on the removal of the brain, an unusual quantity of dark blood flowed from the spinal canal. On either side of the longitudinal sinus, and on the inner side of the frontal bone, two or three growths of bone were found, and to these the dura mater was so firmly adherent, that, on attempting to separate it, it was torn through, and portions remained attached. The largest of these exostoses was about 1½ inch in circumference, and projected about ½ inch from the surface of the bone. No alteration was observed in the corresponding portions of the cerebrum. The brain was softer than natural, and the puncta were more than usually distinct. There was little fluid in the ventricles, but the choroid plexuses were congested. *Lungs.*—These organs were collapsed, occupying but little more than a third of the thoracic cavity, and somewhat congested at their posterior margin; structure healthy. *Heart.*—Larger than usual; cavities, especially the left, were distended with blood. It was surrounded with fat, and its structure was flabby; valves healthy. *Liver, Kidneys, and Spleen* highly congested. *Uterus* natural, but cysts containing viscid fluid in the ovaries. *Small Intestines* (especially lower part of the ilium) congested, and the mesenteric glands enlarged. *Internal Jugular* above the level of the omo-hyoid, almost empty."

Several other cases were related. In one (Mr. Mackarsie's case) the operation was followed by a complete cessation of fits for nearly two months, although they had previously been frequent and severe. After this interval, however, they returned, being at first slight, but subsequently acquiring a more genuine character, although they were not so severe as before the performance of the operation. After having been worn about five months, the tube was withdrawn altogether, and since then the patient has, in all respects, been as bad as before. Mr. Mackarsie, however, is decidedly of opinion, that the mind of the patient was more active, the face much less congested, and the fits were less severe, during the period that the tube was worn. The results of two other cases were indecisive. In one laryngotomy was performed, and the tube, after having been worn three months, was finally removed, in consequence of there being no perceptible alteration either in the frequency or the severity of the fits. The last case was that which had occurred to Dr. Tyler Smith in St. Mary's Hospital. The patient, a woman, had been epileptic for some years, and been twice in a lunatic asylum for mania. She had sometimes as many as twenty fits in a month, but the usual number was five or six. They were preceded by extreme lividity of the head and neck,

were attended with violent convulsions, and followed by protracted torpor. The trachea was opened by Mr. Lane, on the 13th of February. For three or four days after the operation, she was in an excited state, and required constant watching. Three weeks after this she became depressed and feeble, but she rallied in about a week, and is now going on well. In the month before the operation there were nine fits; in the month subsequent there have been five. The congestion of the head and neck is, however, less; the convulsions are less violent, though still by no means slight; the subsequent torpor is more transient, and the general mental condition much improved; once, at least, since the operation, the tongue has been bitten The author then analysed the cases, and argued that it was extremely difficult to assign any decisive beneficial results to Dr. Hall's treatment, because the results of that treatment were so dissimilar and contradictory, that it would really seem they ought to be regarded rather as incidental to the operation than as consequent on its performance. In one case the fits ceased absolutely for two months after the operstion. But did not such a case prove too much? Nothing is more certain than that epilepsy may suddenly disappear, and keep away a long time, without apparent cause; and the patient in this instance could not have derived much benefit from the tube, as he wore it constantly closed with a piece of cork. The results of the treatment in the remaining cases were ambiguous in the highest degree. In some there was scarcely any relief at all afforded, while in the others some of the symptoms had been mitigated for a time, though in what way was unexplained. It was undoubtedly clear that severe fits had followed the operation,—fits in which the tongue had been bitten, and one of which terminated fatally. Almost uniformly the convulsions had been as bad as ever. Tested, therefore, by these facts, it must be apparent that the propriety of treating epilepsy by tracheotomy was extremely doubtful,—so doubtful, indeed, as to render it absolutely necessary to consider well the evidence which had been adduced in its favour before again resorting to it. It seemed by no means clear that the remedy was not more dangerous than the disease; and the practitioner might certainly hesitate before employing a proceeding, the inevitable consequence of which was to reduce the patient to a dumb whistling wretch, whose every breath was an annoyance to himself and others.

Dr. Crisp reprobated the frequent use of the word "we," and said he thought the criticisms of Dr. Radcliffe were strained and premature, and that his conclusions were too sweeping.

Dr. Barnes did not at all consider the discussion of the question brought forward by Dr. Radcliffe premature, and he thought that full justice had been done by the author to Dr. Marshall Hall; that he had related the cases candidly, and reasoned on them dispassionately. He (Dr. Barnes) did not, however, agree with many of the author's conclusions. Mr. Cane's case was, as it appeared to him, a successful example of the operation. In Mr. Anderson's case, death certainly took place by asphyxia, but he considered the manner in which Dr. Radcliffe accounted for its production quite hypothetical. Dr. Radcliffe stated, that the heart presented no appearances of fatty degeneration; but Dr. Jenner, to whom a portion was sent for microscopic examination, reported, that such degeneration was visible in its fibres. Dr. Radcliffe, moreover, misapprehended the practice of Dr. Marshall Hall. That able physician did not recommend tracheotomy as a cure for epilepsy, or, indeed, as treatment for epilepsy at all, but simply as a means of relieving one of the most distressing symptoms with which severe cases of epilepsy were sometimes complicated. This symptom Dr. Marshall Hall was the first to detect, and the first, also, to suggest an effectual remedy for its relief. Laryngismus, it must be remembered, was not present in all cases of epilepsy, but only in some severe instances, and it did not constitute an essential part of the malady, which depended on causes more profound. This was proved by the recurrence of the fit after the laryngismus had been relieved by the performance of tracheotomy.

Dr. Winn had no remarks to offer with reference to the employment of tracheotomy in epilepsy, but said he did not consider that disease to be invariably dependent on anæmia.

Dr. Tyler Smith observed, that in the reference which had been made to his case it was stated, that the patient was as violent after the operation as before, a circumstance which was proved by her hurling a wine-glass at the attendant. Now, this act was committed within so short a time after the operation, that he felt himself inclined to refer it to the chloroform, the influence of which had probably not entirely passed away. Since the operation, by the general acknowledgment of the nurses, the fits had been less violent, and of shorter duration, while the mental state of the patient was unquestionably improved. Dr. Radcliffe denied the existence of laryngismus in epilepsy, and said, the entire absence of stridulous respiration from epileptic cases, at any stages of their seizure, proved, that no spasm of the glottis had taken place. But stridulous inspiration was peculiar to childhood, and ought scarcely be expected in the more capacious larynx of adults, and, he thought, the peculiar cry so characteristic of epilepsy afforded equally good evidence of the relaxation of the spasmodic rigidity of the laryngeal muscles. Dr. Radcliffe observed, that the venous congestion of the lips and face was not relieved by the operation, proving that the tendency to asphyxia did not depend on laryngismus; but Dr. Marshall Hall asserted, that this lividity was in great measure due to the pressure exerted on the veins of the neck by the spasmodic contraction of the muscles, and, if so, it would, of course, continue after the performance of tracheotomy. He was not disposed to regard the operation itself as so disastrous or formidable as the rather strong expression used by Dr. Radcliffe, at the close of his paper, would induce them to believe.

Mr. Dendy thought the operation so far formidable, that few medical men, when seized with epilepsy, would wish to submit to it. He believed it, moreover, in most cases to be unnecessary, for the laryngismus, with which epilepsy was complicated, generally spontaneously subsided. Congestion of the lungs, too, might exist without danger of asphyxia, and, when such was the case, the operation, if performed, would be performed unnecessarily.

Mr. Henry Thompson had opened the trachea, in compliance with the request of Dr. Marshall Hall, in one of the cases related by Dr. Radcliffe. In that instance, the brothers of the patient repeatedly declared, that he was greatly relieved by the operation. He (Mr. Thompson) had, on that very day, seen the patient in a fit. This was the first time that he had done so, and, therefore, he could not compare it, from personal observation, with those from which the patient suffered before the operation. On the present occasion, however, the seizure was very slight, and passed away altogether in three minutes; whereas, by the universal statement of his friends and the relatives who had charge of him, the fits before the operation were extremely severe, being characterised by violent convulsions, which gave place to coma, that endured generally for six hours, and never for less than four. The patient, besides, was in a state fast approaching to idiotcy; whereas now he had become intelligent and rational, and had lost the lividity which was formerly visible in his lips and face. With respect to the other case, in which Dr. Radcliffe stated, that the operation had been performed too high up, in consequence of which the laryngeal muscles were irritated by the presence of the tube, he was not aware, that the operation had been performed at all too high, but the functions of the larynx were undoubtedly interfered with by the tube, and it was, therefore, found necessary to remove it. This case, therefore, proved nothing against the results of the operation; and, if the other cases brought forward by Dr. Radcliffe were revised, they would, he believed, clearly show, that Dr. Marshall Hall had devised a remedy capable of affording effectual relief to the congestion and pressure of the brain which occurred in severe cases of epilepsy, and the mental derangement consequent thereon.

Mr. Trotter said: Having had the charge of Dr. Tyler Smith's case in St. Mary's Hospital, he certainly believed, that the operation had greatly mitigated the character of the fits. He had never seen the patient in a fit; but the sister and nurses of the ward all concurred in stating, that they were much slighter than before.

A few observations fell from Dr. Camps and Dr. Charles Clarke, after which the President called on the author to reply.

Dr. Radcliffe said, he had taken up the question under consideration, not because it clashed with any of his own opinions respecting convulsive diseases, which it did not, but simply as a matter of fact, that, from its importance, ought not to be passed over any longer. He had frankly expressed his present convictions, but he was perfectly willing and ready to change them as soon as they were shown to be unfounded. He had, he trusted, acted with all honour and sincerity, and his only regret was, that Dr. Marshall Hall (whom he and all the Profession highly honoured) had not been present in person, to hear and reply to what he had ventured to say. In reply to one of Dr. Smith's observations, he would only say, that he did not think the epileptic cry a sufficient proof of laryngismus.

The Society then adjourned.

Chances of Life in Railway Travelling.—In a paper by Mr. Neison, read at the last meeting of the Statistical Society, it is shown, that during the years 1844 to 1851, 7,044,469,484 miles had been travelled by passengers, and 176 deaths had happened through accidents from all causes,—hence one passenger had been killed for every 40,025,395 miles travelled; and, supposing a person to travel 12 hours per diem at the rate of 20 miles an hour, including stoppages, for each of the 365 days in the year, he would be killed by an accident in 456 years.

CHARGE OF PROCURING ABORTION AGAINST TWO "SURGEONS."

[We think it right to state, that the names of neither of the persons implicated in the following transaction appear in the Directory, nor in the last list published of Members of the College of Surgeons, nor as Licentiates of the Apothecaries Company.]

At the Lambeth Police-office, on Friday week, Mr. Charles Cunningham, of 1, John's-place, Wellington-street, Slough, Bucks, "surgeon," and Mr. James Thompson Currie, of 10, Norfolk-street, Middlesex Hospital, "surgeon," were placed at the bar, before the Hon. G. C. Norton—the former on a charge of feloniously using a certain instrument on the person of Eliza Mardon, in Stockwell, on or about the 13th ult., for the purpose of procuring abortion; and the latter with aiding and assisting in the commission of the said felony.

Mr. Darnton Greenwood was the first witness called, who deposed that he was a surgeon, residing at Clapham, and that on Sunday, the 17th ult., he was waited on by a lady, who described herself as Mrs. Mardon; and, in consequence of what she stated, he proceeded to the house of Mrs. Halcomb, 4, Stockwell-private-road, Clapham-road. He there found a young lady, whose name he had since ascertained to be Eliza Mardon. She was in bed, and, from an examination he made, he found she had recently been delivered. He put a question to her, understanding that she had been delivered of an abortion, to which she replied she had. He could say that she had been recently delivered of a child; and, from what he had been told, he supposed she must have been about five months gone. She had all the appearance, however, of having gone the full period of gestation. He had some conversation with her, and she made a statement to him. He felt it his duty to communicate what had come within his knowledge to the Registrar of Births for the district, and afterwards the Inspector of Police had called on him. The young lady was still under his charge, and unable to attend on that day. In answer to the questions of Mr. Norton, Mr. Greenwood said, that he had made a careful examination of the young lady's person, and found everything in a natural state, exactly as in the case of ladies after delivery.

Mrs. Grace Halcomb deposed, that Eliza Mardon had lodged in her house since last Tuesday fortnight. She arrived on Tuesday, at about twelve o'clock in the day, and between one and two o'clock the prisoner Cunningham came, asked for the young lady, and was shown into the parlour where she was sitting. After he had been in the house a few minutes the parlour bell was rung, and witness went into the room, when Cunningham said, that he was the medical attendant of the young lady, who was suffering from a polypus in the womb, for which it was necessary to perform an operation. He said, the operation was to take away the polypus by a silk cord that was to be attached to it. He said, that when it came away it might occasion great pain and much discharge, and he cautioned the witness to get some things ready to preserve the bed, as he did not know when it would come away. Witness went down stairs, saying, "Very well, Sir." The prisoner Cunningham called several times between the Tuesday and Thursday, and on the latter day said he lived as far off as Islington, and it was desirable for him to have a room near his patient, for, when the polypus came away, it might be necessary for him to be in attendance in case of inflammation, and he took a room in the neighbourhood. He came several times backwards and forwards up to the Saturday, when the young lady was very poorly, and more so in the evening. Cunningham remained at witness's house until two or three o'clock in the morning, when witness went to bed. On Sunday afternoon witness remained in the parlour reading for some hours. She was frequently disturbed by repeated cries and groans proceeding from the young lady's bedroom. She became very uneasy, and by way of excuse for going into her bedroom she took up a cup of tea. When she got into the room she saw the prisoner Cunningham there, and that the young lady was very ill. Being the mother of several children, and from the appearances, she was convinced that her sufferings were labour-pains, and stated to them, that she did not think that the case was one of polypus. To this no answer was given either by Cunningham or the young lady. In a short time there was a knock at the front door, and it was stated down stairs that it was the young lady's mother. The young lady heard this, and entreated witness not to tell her mother anything. Cunningham left the room before the mother entered, and when the mother came in she exclaimed, "My dear Eliza, what is the matter?" The daughter made no reply, and witness was about to tell the mother her suspicions, but on consideration she thought it was neither the right time nor place to do so. The mother only remained a few minutes in the room, and eventually went with witness's son for Mr. Greenwood, her (witness's) own surgeon. After the mother had gone away, witness said, "Where is 'Dr.' Smith?"—the name she had known Cunningham by, and by which the young lady always addressed him. Cunningham came into the room, went round the bed, and the witness saw him take from the young lady that which she supposed to be the result of a miscarriage. Cunningham asked for a piece of paper, which witness gave him, and whatever it was he took from the young lady, he wrapped it in that piece of paper, and took it away with him, saying "it was all right." Throughout the whole of this, the witness had not seen an instrument of any kind in his hand, nor had she the slightest knowledge that anything wrong was going on. The next morning Cunningham came again, and witness said to him, "Oh! Mr. Smith, what did you do with that which you took away last night? Mr. Greenwood will be here presently, and probably he would like to see it, and also to know if all is as it should be." Cunningham replied, "that what he had taken away he had given to a sexton, paid him half-a-crown, and it was buried." Cunningham did not meet Mr. Greenwood, but went away, and never returned again. The witness did not know anything of the other prisoner.

Superintendent Lund, of the P division of police, proved, that in consequence of information he received from Mr. Greenwood, he proceeded with Inspector Emmerson to the house of the last witness, and there saw the young lady. From what she told him, he proceeded to the house of "Dr." Currie, 10, Norfolk-street, Middlesex Hospital, and there saw the prisoner Currie. He told him, he wanted to inquire of him, whether he knew a person of the name of Smith, who was a doctor. He replied, that he did, but that his real name was not Smith, but Cunningham, and that he had also a business at Islington under the name of Taylor. He then told Currie that he was a superintendent of police, and inquired, when he had seen Cunningham, *alias* Smith, last. Currie replied, that he had seen him that day at twelve o'clock. Witness inquired, whether they had had any conversation together; and Currie answered in the affirmative, and said, that Cunningham had asked him if there had been any inquiry about him, for that something was the matter, and that, if any further inquiry was made, he was to stick to the name of Smith, and not to know him by any other name. Currie further stated, that, on two or three occasions, he had allowed Smith to see female patients in his little surgery. Witness asked him, if he remembered a woman calling there in the month of January with a note. He replied, "Yes," and that Cunningham had told him, that he had examined her in the parlour, and found that she was in the family-way; that she called again in two or three days afterwards, when he (Currie) himself introduced her to Cunningham. The witness then asked for what purpose she was coming to see Smith. Currie replied, that he did not know, and that he had introduced two or three others to Cunningham, but never had received any money. He added that Cunningham had told him that he had received from this woman two payments in the month of January last, and, about a fortnight ago, he also told him that he had gone to lodge over the water, and two or three days after he called and said the job was all over. He had often heard Smith say, that he could do these things. That was after the witness had told the prisoner Currie that the charge for which he wanted Cunningham was for using an instrument upon the person of a young woman in order to procure abortion. Currie then repeated that he had often heard Cunningham say, that he could do these things, but that he (Currie) was never present when it was done. He added that Smith had learnt the practice in France. Nothing more transpired until the other prisoner (Cunningham) was brought to the station-house at eleven o'clock the night before, when witness saw him and read over to him the charge as it appeared on the sheet. Cunningham said, "I never used any instrument whatever; decidedly not." He gave his address Drummond-street, Euston-square, which was found to be false, and that his real residence was John's-place, Wellington-street, Slough, where his wife was now living.

Police-constable Copping said, that, on the preceding night, about nine o'clock, while watching the house of the prisoner Currie, he saw the prisoner Cunningham go in and pass through the shop into the back parlour or surgery. Witness followed, and asked if his name was not "Dr." Cunningham. The prisoner replied, "Yes;" upon which the prisoner told him he was a police-officer, and that he must take him into custody on the charge of using a certain instrument upon a young woman at Stockwell, for the purpose of causing abortion. The prisoner exclaimed, "Good God!" sat down, and gave several sighs. All in a moment he jumped up, put his hand into his pocket, drew forth the purse produced, and said, "Come along with me, I want to speak to you." Witness said that anything he had to say he could hear there, as there was

no one present. The prisoner considered for a moment, and then said, "You have a duty to perform, and I shall not say anything." Witness sent for a conveyance, and brought him away to the station-house, when, on being searched, the purse he had produced, containing eight sovereigns and a-half, was found upon him.

Serjeant Quinnear, 1 P, proved that he took the prisoner Currie into custody that day, at his house, near the Middlesex Hospital. He told him the charge upon which he took him was for aiding and abetting "Dr." Cunningham in using an instrument on the person of a young woman for the purpose of producing abortion. The prisoner said, "No, I never did see him use any instrument." Witness told him that he had been informed, that he had introduced the young lady, Miss Mardon, to Mr. Smith, knowing that his real name was Cunningham. He said, "No." When asked whether he had any letters from Cunningham, the prisoner replied that he had, but he had burned them all; but that his wife knew the contents of one of them, in which Cunningham requested to be known only by the name of Smith, and that, if any inquiry was made after him, he was gone to Australia. Witness had brought both prisoners from the station-house to the court on that day in a cab; and, while on the way, Currie said to Cunningham, "You know that I know nothing about this affair." Cunningham replied, "No, you don't." Witness then said to Cunningham, "I am informed that you delivered Miss Mardon, at Stockwell, of a child; and that you gave a gravedigger half-a-crown to take it away." Cunningham, in reply, said, "It was no child at all,—it was a polypus."

Mrs. Ann Mardon proved, that she resided at No. 26, Ely-place, Holborn, and that the Elizabeth Mardon spoken of was her daughter, and was 22 years of age in March last. She knew that her daughter had gone to Mrs. Halcomb's for change of air, on the recommendation of two medical gentlemen. She did not know that her daughter was in the family-way. She did not know either of the prisoners, and had never, to her knowledge, seen them before the present time.

On Saturday last, Mr. George Thomas, a chemist and druggist, carrying on business at 52, Leather-lane, Holborn, was placed at the bar, on a charge of being concerned with Messrs. Cunningham and Currie.

Mr. John Lund, the superintendent of the P division of police, said, that, in consequence of information he had received, he, on Tuesday last, went to the shop of the prisoner in Leather-lane; and the name of Sullivan being over the door, he asked him if his name was Thomas. The prisoner replied that it was; and he then asked him if he knew a "Dr." Smith; and his reply was, "Very well indeed; he is a friend of mine." Witness asked him if he recollected a woman calling on him in January last—a young woman—and he said he did; that she called on him, and he gave her a letter directed to "Dr." Smith, Norfolk-street, Middlesex Hospital. He (Mr. Lund) asked him if he knew the correct address of "Dr." Smith; and he replied, "Slough."

Sergeant Quinnear, 1 P, deposed, that that day he went to the shop of the prisoner, and asked him if he recollected giving a letter to a young lady, to take to "Dr." Smith, in Norfolk-street, Middlesex Hospital. The prisoner replied, that he did not recollect, but that he might have done such a thing. Witness told him he was a police sergeant, and had come to take him into custody on a charge of aiding and assisting two persons already in charge for using an instrument to cause abortion. The prisoner replied, that he knew nothing about it; and said, that whatever medicine he gave the young lady was made up from a prescription brought to him from medical men.

Mrs. Mary Griffin said: She had been a servant in the family of Mr. Mardon for some years, and was at present employed by them as charwoman. Recollect going to the shop of the defendant and asking for some pills for Miss Mardon for a disease that lady described. The prisoner replied, that he did not wish to give the pills till he saw the young lady, and requested that she would call. Witness told Miss Mardon what the prisoner had said, and she had reason to believe that that lady called on him. She had no idea at that time that the young lady was in the family way.

Mr. Lund said, that this was all the evidence he intended to adduce against the prisoner on the present occasion; but, on a future day, he would be able to show, that it was through the instrumentality of the prisoner that the lady was introduced to Dr. Smith, as he then called himself.

Mr. Norton refused to take bail for the prisoners.

On Monday, a communication was made to the sitting magistrate to the effect, that Mr. Currie was in a state of insanity. It appears that, in the course of Sunday night, the keepers of Horsemonger-lane gaol were alarmed by hearing a loud noise and cries of distress from the cell in which "Drs." Currie and Cunningham were confined; and, on unlocking the cell, they found that Mr. Currie had made a desperate attack on his fellow-prisoner, and had beaten him very severely about the head. The keepers separated Mr. Currie from his fellow-prisoner, and, on doing so, they found that the mind of the former had given way, and that he was, in point of fact, in a state of insanity, and required restraint; they, therefore, at once removed him to the gaol infirmary.

MEDICAL NEWS.

Royal College of Surgeons.—The following gentlemen having undergone the necessary examinations for the diploma, were admitted Members of the College at the meeting of the Court of Examiners, on the 29th inst.:—

Atkinson, Humphry John Gillett, Dublin.
Collins, Edwin Stephens, Sherborne, Dorset.
Harrison, William, Gargrave, Yorkshire.
Hill, Marcus George, Chelsea.
Humphry, Frederick Abell, Balham-hill.
Jones, John, Ruthin, Denbighshire.
Kaye, William, Knaresborough, Yorkshire.
Low, John Robert, London-fields, Hackney.
Marley, Henry Frederick, Port Isaac, Cornwall.
Proctor, Herbert Eady, Brackley, Northamptonshire.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, April 28, 1853:—

Brady, George Stewardson, Gateshead.
Hall, Francis Russell, Fulhouse, Cambridgeshire.
Ireland, James, Provost-street, Hoxton.
Langham, John Phillipson, Forest of Dean.
Moore, Edwin.
Searle, Richard Burford, Bridport, Dorset.
Smith, John, Wheatley, Oxon.
Summers, Eustace Carey, Rothbury, Northumberland.
Swales, Edward, Helmsley, Yorkshire.

University and King's College, Aberdeen.—Graduates in Medicine of this University for the April term:—

Crook, John E., Northfleet, Kent.
Culbard, Josh C. N., Elgin.
Hodges, Richard, Rochford, Essex.
Leake, John, London.
Mitchelson, George F., Sussex.
Nichol, Robert, Kent.

APPOINTMENTS.

Medical.—Dr. William Bayes has been unanimously elected Physician in Ordinary to Brighton Dispensary, vice Dr. Ormerod, resigned.

Naval.—Acting Assistant-Surgeon John W. Brown (1853), to Haslar Hospital, Portsmouth. Assistant-Surgeon Charles Harper (1850), recently serving in the Phaeton, 50, to the Hogue, 60, steam guard-ship, at Devonport.

Militia.—Royal Lancashire: William Miller Coultate, Gent., to be Surgeon. North York: Edward Tweddell Atkinson, Gent., to be Assistant-surgeon. Dorset: George Panton, Gent., to be Lieutenant and Assistant-Surgeon. 2nd Cornwall: William Price Michell, gent., to be Surgeon. 1st Royal Surrey, Matthew Trollope Coleman, gent., to be Assistant-Surgeon, with the rank of Lieutenant. 2nd Royal Surrey; Henry Sharp Taylor, gent., to be Assistant-Surgeon, with the rank of Lieutenant. Light Infantry, Royal Sussex: Frederick John Freeland, gent., to be Assistant-Surgeon. Artillery Battalion, Royal Sussex. Surgeon's Mate George Weeks, to be Surgeon. Henry Moon, gent., to be Assistant-Surgeon.

Bombay Army.—Veterinary Surgeon William Lamb. Date of arrival at Bombay, 10th March, 1853.

Madras Army.—Surgeon T. G. Johnston, M.D., late promotion, to 45th Regiment Native Infantry.—Assistant-Surgeon G. G. Holmes, to do duty with 29th Regiment Native Infantry.—Assistant-Surgeon E. S. Cleveland, M.D., doing duty 2nd European Light Infantry, is appointed to afford medical aid to the Lord Bishop of Madras, during his tour of visitation, and Assistant-Surgeon H. R. Oswald, M.D., will, on being relieved by the above medical officer, return to Trichinopoly, and rejoin the Superintending Surgeon's department Southern division.

Bengal Army.—Assistant-Surgeon H. F. Williams, M.D., to be Civil Assistant-Surgeon of Chittagong.—Assistant-Surgeon James Grant, to be Civil Assistant-Surgeon of Tipperah.—Assistant-Surgeon G. R. Skinner, F.R.C.S., to officiate as Civil

Assistant-Surgeon of Howrah.—Promotions: Assistant-Surgeon William Pitt to be Surgeon, vice Surgeon George Jackson Berwick, M.D., retired, with rank from the 1 th Feb., 1853, vice Surgeon Robert White Wrightson, deceased.—Surgeon Charles Murray Henderson, M.D., from 6th December, 1853, in room of Surgeon George Jackson Berwick, M.D., retired,—Surgeon William Suker Comberbach, from 16th Dec., 1852, in room of Surgeon James Mainwaring Brander, M.D., retired.—Surgeon Henry Irwin, F.R.C.S.I., from 17th Dec., 1852, in room of Surgeon George Campbell Rankin, retired.—Surgeon Henry Benjamin Hinton, from 31st Dec., 1852, in room of Senior Surgeon Gavin Turnbull, retired.—Surgeon Alexander Charles Macrae, M.D., from 6th Jan., 1853, in room of Surgeon George Craigie, M.D., deceased.—Surgeon Duncan M'Rae, from 27th January, 1853, in room of Surgeon Acheson Archibald M'Anally, retired.

DEATHS.

BROWNE.—At Dinapore, March 15th, Senior Surgeon Robert Browne, Superintending Surgeon of the Dinapore Division.

HARDY.—May 2, at Manchester, R. Hardy, Esq., M.D. of Lower Broughton, M.D. Edin., 1832; L.R.C.S. Edin.; Consulting Physician of the Salford and Pendleton Royal Dispensary; Lecturer on Botany at the Manchester Royal School of Medicine and Surgery; Member of the Medical and Physical Societies of Edinburgh.

KING.—March 6, at Rangoon, aged 25, of abscess of the liver, Charles King, Esq., Assistant-surgeon Hon. East India Company's Service.

MILLER.—May 1, at his house, 40, Welbeck-street, from fever, aged 35, Dr. James Miller, M.D. Edin. 1841, M.R.C.P. 1846; late Physician to the Western General Dispensary, Fellow of the Medical and Chirurgical Society; Extr. Member of the Royal Medical Society of Edinburgh; Author of "Pathology of the Kidney in Scarlatina," 1850. He had been but recently elected to the office of Assistant-Physician to the London Hospital,—an appointment which opened to him a wide field for the exercise of the industry, zeal, and talents in the cultivation of his profession by which he was distinguished. In the private and social relations of life he was highly esteemed, and his death will be deeply lamented by all who had the privilege of knowing him.

PULLING.—April 23, at Reigate, aged 36, Frederick Leopold Pulling, M.D., of Queenhithe; M.R.C.S. Eng. 1839, L.S.A. 1839; M.D. St. Andrews 1839; Consulting-Surgeon to Royal Maternity Charity; Surgeon to Western City Dispensary.

MEDICAL BENEVOLENT COLLEGE.—The first festival of this Institution was held on Wednesday evening, at the Freemasons' Tavern. The chair was filled by Earl Manvers, supported by the Bishop of St. David's, Mr. Freshfield, M.P., Mr. Pownall, Colonel Hanmer, Sir Charles Mansfield Clarke, Dr. Conolly, Dr. James Arthur Wilson, Dr. Locock, Dr. Forbes, Mr. South, Mr. Churchill, and a large number of practitioners, not only from the Metropolis, but also from the provinces. The usual loyal toasts having been drunk, the noble Chairman proposed the "Medical Benevolent College and its Founder, Mr. Propert," which was received with enthusiastic applause. Mr. Propert, after returning thanks, read to the company the list of subscriptions which, including several large donations, amounted to nearly 7000*l.* The Earl Manvers retired about eleven o'clock, when Sir C. M. Clarke was called to the chair, and the festivities were prolonged to a late hour. Nearly 250 gentlemen sat down to dinner.

KING'S COLLEGE HOSPITAL.—The usual anniversary festival of this excellent charity was held on Wednesday evening, the 4th inst., at the Albion Tavern, Aldersgate-street, when about 150 gentlemen sat down to dinner. His Royal Highness the Duke of Cambridge presided, and among the company present we noticed the Bishop of Chichester, Admiral Lord Radstock, Lord William Paulett, Sir Benjamin Brodie, the Principal of King's College, Colonel Fergusson, Sergeant Storks, Mr. William Fergusson, Dr. Budd, Dr. Arthur Farre, Dr. Guy, Dr. Tanner, Dr. Johnson, Mr. Bowman, Mr. Henry Lee, etc. The noble Duke, after the usual loyal toasts, proposed "Prosperity to King's College Hospital," remarking, "that since the establishment of this Institution fourteen years ago, relief had been afforded to no less than 230,941 patients, of whom 16,000 had been treated within the wards, and upwards of 215,000 as out-patients. The urgent necessity for such a charity, therefore, could not be denied, but, unfortunately, its future operations could not be satisfactorily carried out without receiving increased support from the public and its patrons. In 1852 the expenditure was 4944*l.*, and for this sum 1200 in-patients, 25,000 out-patients, and 500 poor pregnant women had received medical relief; it was, therefore, much to be regretted that the excess of expenditure over the receipts amounted to 1979*l.* He hoped the subscriptions of the present company would show that they were fully determined to give this hospital their cordial support and encouragement." The Secretary then announced donations and annual subscriptions to the amount of 2111*l.*, including twenty guineas from the noble Chairman.

MEDICAL BENEVOLENT FUND.—At the last monthly meeting of the Committee two new annuitants were elected at 15*l.* a-year. Cases:—1. A general Practitioner in the north of England in great distress, voted 5*l.* 2. The father of the family is insane, and his children eleven in number, are reduced to very straitened circumstances,—voted 10*l.* to be placed in the hands of a judicious friend, so that it may be applied as circumstances indicate. 3. A literary medical man, in the country, well known and highly esteemed, reduced to the greatest distress and privation, and having a large family, voted 15*l.* 4. A young man, an assistant, with a very high character, who is obliged to leave his situation, and make a voyage to a milder climate, voted 10*l.* 5. An aged medical man, of high character, in reduced circumstances, requiring aid to enable him to carry on the battle of life, voted 5*l.* 6. The widow of a highly respectable medical man in the country, with a very large family, five of whom are entirely dependent upon her, and her own health not being good, voted 10*l.* Several other cases were discussed and dismissed, some from a failure of the proper recommendations, others from the absence of an unexceptionable moral character. Since July 1, 1852, the sum of 539*l.* 15s. has been received in subscriptions; 354*l.* 16s. in donations, inclusive of dividends. There has been paid for benevolent aid 519*l.*, and in expenses 51*l.* 12s. 5d.: together 570*l.* 12s. 5d., leaving the sum of about 30*l.* due to the Treasurer, which, by the grants at the meeting, was increased to about 85*l.* It is hoped that the friends and subscribers to the Fund will do their best towards liquidating this debt.

DEVON AND EXETER HOSPITAL.—The Treasurer has received the sum of 1,000*l.*, being the bequest of Richard Browne, Esq., late of Great Englebourne, in Harberton, Devon.

SURREY DISPENSARY.—The 76th anniversary dinner of this charity was held on Wednesday week, at the Bridge-house Hotel, when about eighty gentlemen sat down to dinner. The Chairman stated, that the number of patients admitted during the year 1852, was 5950; of whom were cured, 5177; relieved, 86; dead, 122; and remaining under cure, 565. The income for the year ending Midsummer, 1852, was 1202*l.*; and the expenditure 1257*l.* In the course of the evening, subscriptions to a large amount were announced.

A CLAIM INVALIDATED THROUGH NON-QUALIFICATION.—In the case of Popham *v.* Innes, tried in the Common Pleas, before Mr. Justice Talfourd, an action was brought by the plaintiff, who carries on business in the New-road as a medical general practitioner, to recover the amount of premium alleged to be due from the defendant in respect of the education of a son of his, who had been placed as a pupil with the plaintiff, and subsequently removed. (22*l.* out of 140*l.*—the amount of the premium, had been paid.) The defence principally relied on was, that the plaintiff was not qualified to practise as a general medical practitioner, not being a Licentiate of the Apothecaries' Company. Upon this issue, under the direction of the Judge, the jury found a verdict for the defendant.

THE DWELLINGS OF THE WORKING-CLASSES.—Lately, the foundation-stone of the first model lodging-houses of the Society for Improving the Dwellings of the Working-classes was laid on a piece of ground which had been covered with the most wretched hovels, in New-street, Golden-square. In the course of the dinner in the evening, subscriptions to the amount of 900*l.* were collected.

VITAL STATISTICS OF JEWS IN PRUSSIA.—The Jewish population of Prussia, and probably also of other countries, exhibits remarkable abnormities. It being a fact, as is known, that of new-born boys a larger proportion die in the first year of life than of new-born girls (in Prussia 116·110), it ought to be presumed that, considering the predominance of boys among the Jews, the mortality of their children should be greater in the first year than among the rest of the population. Nevertheless, just the contrary takes place. In the whole kingdom of Prussia, 17·3 per cent. of the born-alive die in their first year of life; of the children of the Jews, on the contrary, only 13 per cent. Nay, what is more, the smaller proportion of mortality among the children of the Jews is to be observed on their very births, for, out of all their children, only 2·5 per cent. are stillborn; whereas this proportion amounts, for the whole population, to 3·51 per cent. In the same manner, also, in after life, a less high mortality seems to obtain among the Jews.—*Assurance Magazine.*

Quarterly Return of the Deaths Registered in England from January to March, 1853.—118,241 deaths have been registered in the first three months of the present year,—a number exceeding by 11,559 the deaths in the winter quarter of 1852, and by still more the deaths in any previous winter, except the winters of 1847 and 1848, when influenza and cholera prevailed. The annual mortality in England has, within the last 10 years, been at the rate of 2·252 per cent; on an average of the 10 winter quarters, the rate has been 2·467 per cent.; in the winter of the present year, 2·620 per cent. The annual rate of mortality was raised in both the town and the country,—in 117 districts, comprising the chief towns, from 2·759 to 2·888 per cent.; in 507 country and small town districts, from 2·246 to 2·397 per cent. The ratio is increased by the season more in the country than it is in the towns, which, however, still maintained their fatal pre-eminence, destroying, by their dirt and imperfect sanitary arrangements, out of the same population, 5 lives to every 4 who die in the open country. Small-pox, scarlatina, typhus, influenza, or bronchitis, have prevailed in many places, and are the proximate causes of the excessive mortality. The excess of mortality has been general; but it has been greatest in the South-western Division, in the Division on the Severn, in Wales, and in Lancashire. On the whole, the western side of the island appears to have sustained the heaviest losses.

Mortality Notabilia.—It is gratifying to observe a decided improvement in the public health. In the first three weeks of April, the deaths in London were 1340, 1243, 1182; in the last week of the month the diminution is considerable, the number being 1089. In the ten corresponding weeks of 1843-52, the average number of deaths was 930, which, if raised in a certain proportion, according to increase of population, becomes 1023. The excess of mortality in last week, above the estimated amount, is, therefore, 66,—a result which is much more favourable than any these returns have yielded since the cold weather set in.

Mortality in Public Institutions for the week ending April 30:—

	Males.	Females.	Total.
Workhouses	62	44	106
Military and Naval Asylums	9	1	10
General Hospitals	22	26	48
Hospitals for Special Diseases	4	1	5
Lying-in Hospitals	..	2	2
Lunatic Asylums	6	6	12
Military and Naval Hospitals	10	..	10
Hospitals and Asylums for Foreigners	..	..	..
Prisons	..	2	2
	113	82	195

DEATHS *in the Metropolis for the week ending Saturday, April* 30, 1853.

Causes of Death.	April 30. 0	15	60	All Ages.	Sum of Ten Weeks.
All Causes	507	357	223	1089	9303
Specified Causes	506	357	222	1085	9247
1. Zymotic (or Epidemic, Endemic, and Contagious) Diseases	180	33	14	227	1851
Sporadic Diseases:					
2. Dropsy, Cancer, and other Diseases of uncertain or variable seat	6	21	19	46	440
3. Tubercular Diseases	92	125	5	222	1910
4. Diseases of the Brain, Spinal Marrow, Nerves, and Senses	51	41	25	117	1137
5. Diseases of the Heart and Blood-vessels	2	28	20	50	351
6. Diseases of the Lungs and of the other Organs of Respiration	94	51	61	206	1430
7. Diseases of the Stomach, Liver, and other Organs of Digestion	24	23	13	60	549
8. Diseases of the Kidneys, etc.	1	6	4	11	96
9. Childbirth, Diseases of the Uterus	...	8	1	9	93
10. Rheumatism, Diseases of the Bones, Joints, etc.	...	5	1	6	93
11. Diseases of the Skin, Cellular Tissue, etc.	...	1	...	1	21
12. Malformations	2	...	...	2	26
13. Premature Birth and Debility	19	1	...	20	207
14. Atrophy	26	1	7	34	187
15. Age	...	...	47	47	483
16. Sudden	1	1	1	3	95
17. Violence, Privation, Cold, and Intemperance	8	12	4	24	278
Causes not Specified	1	...	1	4	56

BOOKS RECEIVED.

English and German Clinical Phrase-book.
Mahony on Cholera.
Faraday's Lectures, by Scoffern.
Verhandlungen der Physicalisch.
Medicineschen Gesellschaft zu Würzburg.

TO CORRESPONDENTS.

Nemo (Croydon.)—The case of Duff *v.* Shorthouse appears at length to be concluded; the Bench of Magistrates having, on Saturday last, dismissed the charge. The Chairman stated, "the Bench were of opinion, that there was not sufficient evidence to warrant them in making an order. They gave no opinion upon the case. All they would say about it was, there was not sufficient evidence to warrant them in making an order."

F. R. S. E.—Rumour has many tongues, which, however, often mislead, like *ignes fatui*. We can give no explanation of "the miserable discussion."

Students will not, we fear, be able to purchase a good microscope for the sum named.

M.D. (Brook-street.)—It must not be thought, that because we publish a letter in our columns, we therefore agree with the arguments brought forward, or the deductions drawn from them. On the contrary, we often disagree *in toto* with the remarks of our correspondents, but we wish both sides of the question to be fairly attended to.

The last edition of Pereira's "Materia Medica" is the Third. The Second Volume is not yet completed, only the First Part of it having been published.

Mr. Francis Peppercorne's letter has been received. The less we say about it the better.

An Old King's Student is informed, that our only reason for not having yet published the result of the election, is the fact that the election has not yet taken place.

A Subscriber to Several Medical Charities would do much good if he could prevail upon the managers of our hospitals and dispensaries to do away entirely with the necessity for patients procuring subscribers' letters. It appears to be too often forgotten, that a poor man's time is his capital, or stock in trade, and to occupy it uselessly and inconsiderately is a very great hardship, if not a species of injustice. The only recommendation necessary for any person to be admitted into an hospital should be poverty and sickness. The idea of sending a suffering person half over London for a "letter," would be ridiculous, if it were not unfeeling, and often productive of much harm.

The Testimonial System.

[To the Editor of the Medical Times and Gazette.]

Sir,—The reproof you have administered to medical men, whatever may be their standing, for giving testimonials to persons interested in bringing their inventions before the public, must have been felt by most, if not all, of us as well merited; for, without doubt, the testimonial system tends to lower the tone of our Profession. Granted that the names of eminent men have been put to testimonials without a self-interested motive—as those of Dr. Babington and others,—still the certificates of men hardly known to fame will be open to suspicion; at all events, they have been carelessly given, and the consequence is, we read them daily in newspapers and periodicals.

The enclosed paper, lately sent to me, aptly illustrates another form of the testimonial system. Two others have come under my notice. In the one, a column of a newspaper filled with testimonials in favour of a candidate for a surgical appointment to an hospital; the other, a number of testimonials printed and put together in a pamphlet, for convenient distribution among friends.

Besides, scarcely a week passes without my seeing the names of several medical men in our county town, certifying to the merits of Mr. ———'s spectacles. The party applied to me, but not coveting what, indeed, I felt to be no distinction, I declined the offer of appearing in public.

Our best thanks are due to you for your exposure of the Testimonial System. I am, &c.

Great Yarmouth. M.D. Edin.

P.S.—I enclose my card, leaving you to make what use you please of this.

[The testimonial paper enclosed in this gentleman's communication is of the ordinary kind—full of fulsome adulation and wretched bombast. We need not, however, weary our readers with it.]

COMMUNICATIONS have been received from—

Dr. Todd, Kings's College; Dr. H. Johnson, Shrewsbury; Students; J. Peppercorn, Esq., Brighton; Dr. Edwards Crisp, Parliament-street; Æquitas; M.R.C.S.E. and L.S.A.; Dr. Inman, Liverpool; Dr. MacIntyre, Odiham; Dr. Macintyre, Harley-street, Cavendish-square; C. J. Mill, Kirriemuir, Forfarshire, Scotland; G. Grove, Esq.; E. D. Hacon, Esq., Hackney; An Extra-Licentiate of the College of Physicians; Henry Greenway, Esq., Plymouth; D. Thomson, Esq., Aberdeen.

ORIGINAL LECTURES.

ILLUSTRATIONS OF CLINICAL MEDICINE AND PATHOLOGY.

By GEORGE BURROWS, M.D., F.R.S.
Physician to St. Bartholomew's Hospital;

AND

W. SENHOUSE KIRKES, M.D.
Registrar and Demonstrator of Morbid Anatomy at St. Bartholomew's Hospital.

(Continued from page 11, Vol. VI.)

AFFECTIONS OF THE ALIMENTARY MUCOUS MEMBRANE IN CHRONIC RENAL DISEASE.

In the last paper it was mentioned, that the several great serous and mucous membranes are very liable to be secondarily affected in the course of chronic renal disease; and some examples were then given, in which the stress of the secondary affection fell on the respiratory mucous membrane. In the present communication, it is proposed to offer some observations illustrating the disorders which the gastro-intestinal, or alimentary mucous membrane, is apt to undergo, in the progress of the renal disease. These disorders may consist in mere functional disturbance of one or more of the various parts of this great mucous tract, or they may proceed to actual structural lesion. Functional disturbance of the stomach and bowels is one of the most common accompaniments of chronic disease of the kidneys, and is observed in all the stages of this disease. It is manifested in the various forms of chronic dyspepsia, attended with nausea, loss of appetite, and flatulence, which are frequent subjects of complaint in the course of the disease, while, especially in the later stages, it sometimes exhibits itself in obstinate vomiting, and in protracted and exhausting diarrhœa. Of the two latter symptoms, diarrhœa is more commonly observed than vomiting; occasionally, though rarely, they co-exist, and then, as in the case to be presently related, they tend to rapid and fatal exhaustion. The bowels are frequently irritable in renal disease, and this irritation is apt to run on to chronic diarrhœa, of a troublesome and exhausting nature. This symptom, when fully established, is peculiarly unyielding to treatment, most probably because of its being dependent on a permanently unhealthy state of the blood, rather than on a temporary and removable disorder of the intestinal mucous membrane. Vomiting is one of the most unfavourable, as well as most distressing symptom, in chronic renal disease. Although nausea and occasional vomiting may occur at any stage of the disease, yet these symptoms are rarely severe and protracted until the disease of the kidney is far advanced. In some cases, the vomiting is almost constant, occurring after everything that is swallowed, and even continuing, in the form of retching, when the stomach is empty. With this retching mucus and altered bile are usually brought up, and, according to Frerichs,(a) the vomited matters are generally alkaline, and contain carbonate of ammonia, into which he believes the urea in the blood to have been decomposed. Besides the distress produced by this protracted vomiting, there results from it a rapid exhaustion of the patient's strength, in consequence of the small amount of nourishment taken into the system; for, with the exception, perhaps, of brandy, the stomach, in some cases, will scarcely retain anything.

The following case affords a good illustration of the serious disturbance to which the gastro-intestinal mucous membrane is liable in chronic disease of the kidney:—

Case 11.—Mary Glover, aged 24, admitted into Faith front ward, under Dr. Burrows, November 11, 1852. Her complexion was extremely pallid and anæmic, with a slight tinge of sallowness, the cheeks somewhat swollen and puffy, and her aspect very languid; she complained chiefly of a sense of great debility, with weariness on the least exertion, of wandering pains in the limbs, lower part of the abdomen, and across the loins; also of frequent severe headache and vertigo. Pressure over the region of the kidneys caused considerable pain, especially on the left side. There was a loud venous murmur in the jugular veins. Her skin was natural; pulse 84, small and weak; tongue clean and moist; bowels said to be relaxed, with scanty, slimy stools; the catamenia absent for twelve months. She stated, that she was a needlewoman, and had been out of health for about two years, her ailments commencing with, and attended throughout by, headaches, giddiness, loss of appetite, dyspepsia, pains in the back, and palpitation. About eighteen months before admission, she first began to vomit after her meals; and, with very little intermission, this symptom continued ever afterwards; occasionally her hands and feet would swell a little; but these dropsical symptoms were never very prominent, and were scarcely at all marked on her admission. When eight years old, she had scarlet fever, and during her convalescence took cold and was laid up again; but she could not remember if she was dropsical at that time. For some time previous to admission, she had been leading an irregular life, one confessedly of prostitution, and probably of intemperance.

The symptoms and aspect of this patient suggested at once, that this was a case of aggravated anæmia and chlorosis, dependent either on ordinary causes of impoverished blood, or on advanced degeneration of the kidneys; and the condition of the urine was at once looked to as the means of determining the nature of the case. Yet at first this secretion did not throw as much light on it as was expected; for, although very pale, of low specific gravity (1013), and requiring to be frequently voided, yet it was tolerably copious, and yielded no precipitate on the addition of heat and nitric acid, alone or combined. The absence of albuminuria thus indicated seemed to denote that the disease was one of simple anæmia; yet the puffiness of the cheeks, pain across the loins, low specific gravity of the urine, protracted vomiting, and irritable state of the bowels, still pointed to the probable existence of some renal disease, and led to repeated and careful examinations of the urinary secretion. At length, after the girl had been some days in the hospital, and placed on a plan of treatment suited to her anæmic and exhausted condition, the urine, which was daily examined, yielded a distinct albuminous sediment on the application of heat and nitric acid, and on subsequent examinations generally showed more or less evidence of albumen, though the quantity was always very small, and sometimes scarcely appreciable. Remembering that in some cases of advanced renal disease, albumen almost or entirely disappears from the urine, the opinion was now formed, that extensive and long-standing degeneration of the kidneys existed in this case, and was probably the cause both of the impoverished state of the blood, and of the various symptoms of which the patient complained.

Of these symptoms, the most urgent and the most weakening were the vomiting and diarrhœa; and to their control the remedial measures employed were principally directed. At first she had a warm bath for the purpose of exciting increased action of the skin, and took for the same purpose, and as a sedative to the irritable stomach and bowels, ten grains of pulv. ipecacuanha comp. nightly; then an effervescing draught of citrate of potass, with five grains of the ammonio-citrate of iron, three times a-day, these measures being combined with a generous diet. After a week's trial of this plan, no marked improvement ensued; there was the same debility, the same languid, listless aspect, and the same irritable state of the bowels, which acted from two to eight times in the twenty-four hours, the motions being more or less slimy, sometimes of a light clayey colour and consistence; sometimes dark. The vomiting after food, however, had abated, and she was enabled to retain more nourishment than she had done for a long time. The use of steel was persevered in for another week, given now in the form of tincture of the sesquichloride, out of camphor mixture. The note of November 30 represents her as again troubled with nausea and occasional vomiting after food, distressed by the frequent action of the bowels, and complaining of cramps in the abdomen and legs, and pain across the loins. A draught containing half a drachm

(a) Die Brightsche Nieren-Krankheit. 1851.

of aromatic confection and a drachm of spirit of ammonia out of cinnamon water was now ordered night and morning, the steel being omitted, as probably keeping up the irritation in the bowels. During the next few days, there was decided improvement, the sickness being allayed, and the bowels acting less frequently. This amendment, however, was but temporary, for, on the evening of Dec. 4, she was attacked with excessive vomiting, which continued, with but little intermission, through the night, her distress being at the same time aggravated by frequent desire to go to stool, and scalding while passing her urine, and a straining cough. She was now ordered wine, ʒiv. daily; bismuth trisnit., gr. v.; sp. ammon. arom., ʒss.; infus. calumb., ʒj.; aq. menth. pip., ʒss. ter die. The note of Dec. 9 records no improvement; her nights were restless, her aspect dejected, the cough distressing, the bowels much relaxed, with abdominal pain, the motions being slimy, and tinged with blood. Her tongue was clean, and her skin cool; and the pulse 72, small and soft. There was not the least inclination for, indeed rather a repugnance to, food of any kind. A simple effervescing draught of citrate of potass was now substituted for other measures, the wine being still continued.

Dec. 11.—The stomach rejects everything she takes, both food, and wine, and medicine; the bowels still relaxed; the urine scanty and turbid, and slightly albuminous. In the view of allaying the incessant and exhausting vomiting, she was ordered empl. canth. epigastrio.

℞. Pulv. opii, gr. ss., bis die; acid. hydrocyan. dil., miij.; sod. sesquicarb., gr. x.; ex mist. camph. ter die; sp. vini gallici, ʒij.

These measures were beneficial for a time; the food and medicines were better retained, the bowels became less relaxed, and her condition, consequently, less distressing; but on the 13th, the vomiting returned as bad as before, nothing being retained, except occasionally a little iced brandy and water; and, from this date, she began to sink rapidly, and passed into a listless, drowsy state, which gradually increased during the remaining three days of her life. It was with the greatest difficulty she could be induced to take either medicine or nourishment, and, although parched with constant thirst, she refused to drink, on account of the distressing vomiting which ensued after the introduction of anything into the stomach; and at length she passed into a state of almost constant retching, with the occasional rejection of bile. Beef-tea enemata, and occasionally a little brandy retained by the stomach, now constituted the only means of her support. Hiccough, dry brown tongue, sordes on the teeth and lips, cessation of the urinary secretion and of the action of the bowels, with a drowsy, typhoid state, attended the last twenty-four hours of her life.

Examined after death, the body presented the same anæmic state observed during life; the surface being sallow and waxy, and the muscular tissue pale and soft; there was, however, a considerable amount of subcutaneous fat, of an unusually yellow colour. The tissues generally exhaled a peculiar urinous odour, not uncommonly observed in fatal cases of advanced kidney disease.

There was no dropsical effusion into the cellular tissue or any of the serous cavities. The kidneys were extremely atrophied and degenerated, being small, thin, and tough, and of a general pale reddish colour, the cortex shrunken, and indistinguishable from the medullary portion, into which it imperceptibly passed. The heart was rather large; on the anterior surface was a small white patch of old false membrane; there was thickening and puckering of both the aortic and mitral valves. The blood was coagulated and separated, and presented ordinary characters. The left pleural cavity was obliterated by old adhesions; on the costal and pulmonary surface of the right pleura were deposited several yellow tubercles. The lungs were much congested; in each lower lobe were several collections of thick, puriform material accumulated in the smaller bronchial tubes. Within the peritoneum were bands of old lymph in various parts, the products of former inflammation. The liver was large, heavy, smooth on the surface, pale, and very friable, being evidently fatty. The spleen was very large, pale, and soft; several yellow tubercles were scattered through its interior. The stomach contained some mucus and bile; the mucous membrane of the cardiac end presented some patches of a bright red colour, but otherwise the coats of the viscus appeared quite healthy. The intestinal canal appeared healthy throughout, except at the lower part of the rectum, whence the mucous membrane was completely removed by deep ulceration.

The points to note in the morbid appearances in this case are, the atrophied and degenerated state of the kidneys, which was probably the primary cause of the patient's sufferings and death; the slight appearance of mischief about the stomach, although there had been chronic vomiting for many months; the healthy state of the whole intestinal canal, excepting the ulceration at the terminal portion of the rectum, which suggests the opinion, that the diarrhœa was probably the result of the unhealthy state of the blood, and not dependent on any affection of the intestinal mucous membrane, and that the ulceration of the rectum was due to the constant irritation of the acrid secretion poured from the rest of the canal; the remains of previous inflammation of the pericardium, pleuræ, and peritoneum, which not improbably had its origin in the renal disease; the large, pale, and fatty condition of the liver, which, perhaps, helped in the production of the extreme anæmia to which the patient was reduced; and, lastly, the development of tubercular disease in the pleura and spleen, at the end of long-standing disease of an important organ like the kidney.

The case itself presents several features worthy of comment. It represents the disease of the kidneys running its course with scarcely any manifestation of one of the most common phenomena of chronic renal disease, namely, dropsy, and terminating fatally by exhaustion, consequent on long-continued secondary disturbance of the alimentary mucous membrane, displayed in protracted vomiting and obstinate diarrhœa. It furnishes an example of the state of extreme anæmia which is frequently induced by chronic renal disease; and, in the doubtful state of the urine at the earlier examinations, offers some useful hints in relation to the cause of the anæmia and other symptoms under which the patient was labouring on admission. Had the absence of albumen on the first examination of the urine been deemed sufficient to denote that the kidneys were healthy, attention would probably have been directed entirely away from the real cause of all the mischief; but the low specific gravity of this secretion, its pale colour, and the frequent desire to pass it, led to renewed analyses of it; and so, by ultimately showing the presence of albumen, even though in very small amount, pointed most clearly to the real nature of the case. In all cases, indeed, of chronic vomiting, irritable bowels, or protracted dyspepsia, the condition of the urine should be carefully inquired into; for these symptoms may be the result of chronic disease of the kidneys, which may have never manifested itself by dropsy or other chief signs by which its existence is ordinarily indicated.

To this case may be appended the particulars of another, like it in many respects, especially in the state of extreme anæmia, the absence of dropsy, and the fatal termination by obstinate and protracted vomiting.

Case 12.—Caroline Phillips, aged 29, a married woman, was admitted, under Dr. Hue, in December, 1851. She was an inveterate spirit-drinker, and had led a dissolute, intemperate life. For several months before her admission her health had failed, yet she continued in the same depraved course of life. She was a fat, but pale, sallow, anæmic woman, and was received into the hospital on account of almost incessant vomiting. She had a dejected, languid aspect, was quite free from dropsy, and complained of nothing but the vomiting and a feeling of exhaustion. The vomiting had been a prominent symptom during the several months of her illness, and was frequently attended with the ejection of large quantities of bile. While under observation in the hospital, it continued almost incessantly, ensuing after food and medicine, and even independent of the introduction of anything into the stomach, and was quite uninfluenced by any measures employed for its removal. She gradually sank, and died from exhaustion ten days after her admission.

On examining the body, eighteen hours after death, the tissues were all found pale and soft, while beneath the integuments, and in the folds of the peritoneum, a large quantity of fat was accumulated. The kidneys were large, pale, smooth on the surface, and of a soft, greasy texture, being evidently fatty. The liver was large, heavy, and of a pale, yellowish-white colour. The stomach contained much mucus, but, beyond some irregular congestion of the mucous membrane, presented nothing abnormal in its coats.

The heart was covered with large masses of fat, which, on the right side, quite concealed the muscular tissue. The valves were healthy, and the muscular walls not obviously degenerated, although pale and soft. The serous surfaces were healthy; and other parts presented nothing worthy of note.

Although the urine was not examined in this case, yet the manifestly diseased condition of the kidneys detected after death, and the absence of any other organic lesion sufficient to explain the protracted vomiting, make it probable that this symptom was secondary to, and consequent on, the renal disease; for, whether large and degenerated, or small and atrophied, the kidneys may be equally imperfect in the discharge of their functions, and be followed by the same secondary evils resulting from the retention of the elements of the urinary excretion. In each of the cases just related, there was the history of previous irregularity of life, which probably had exercised a considerable influence in the production of the renal disease, though it is not unlikely that, in the first case, the seeds of the disease had been sown at the time of the neglected attack of scarlet fever. The irritable condition of the alimentary canal so frequently observed in chronic disease of the kidney, may, as already mentioned, be confined to a comparatively limited portion, or extend over the greater part of this extensive mucous tract. In the case last recorded, the brunt of the evil appeared to fall exclusively upon the stomach, there being no note of any disturbance of the bowels; in Case 11, both the stomach and bowels were seriously affected; while in Case 6, related in a former paper, (*Medical Times and Gazette*, Vol. V., p. 377,) we had an example in which the secondary disorder of the gastro-intestinal mucous membrane attacked the bowels alone, and was apparently limited to the large intestine.

The treatment of these cases of chronic renal disease, when complicated with an irritable state of the stomach and bowels, is attended with great and peculiar difficulties. If anasarca forms, and continues increasing, and by its amount suggests the propriety of the use of those remedies which make a demand upon organs capable of withdrawing from the system the serous parts of the blood, then the physician is beset with difficulties in making his choice of remedies.

The employment of diuretics in the advanced stages of renal disorganisation would hardly be safe; or, indeed, if employed, they could not be expected to produce diuresis, when the secreting structure of the kidneys was nearly atrophied. The irritable condition of the alimentary canal, on the other hand, forbids the free use of hydragogue cathartics, and thus both channels, through which we may so often relieve the vascular system in cases of dropsy, are almost closed against us.

In truth, the skin remains the only surface on which we can safely act with the view of relieving the vascular system. And, in accordance with this opinion, we employ blisters very freely in these cases of chronic renal disease. They may be applied to the epigastrium, either hypochondrium or over the abdomen, and be encouraged to discharge for several days after vesication. Our experience prompts us to recommend these remedies, as capable of affording much temporary relief to the symptoms; and, indeed, it may be, that the discharging surface of the blister affords an outlet to effete matters in the blood, which, in a healthier state of the kidneys, would be eliminated by those organs.

Those astringents which, in ordinary cases of diarrhœa, are most effectual, exercise but little control over the irritability of the bowels in chronic renal disease. Opium alone seems to be of any decided use, and this, perhaps, more by virtue of its sedative than its astringent properties; for, although the bowels are in such an irritable state, and frequently call for evacuation, yet the actual quantity of dejection voided is usually not great, the frequent desire to relieve the bowels being probably in great measure due to the acrid nature of the secretions within the intestines; hence it is, perhaps, that opium, by its sedative influence, allays the irritability of the intestinal surface, and so appears to check the diarrhœa. When this latter symptom is complicated with vomiting, pure opium, in frequent doses, will be found the most appropriate sedative; but, where distressing diarrhœa alone is exhausting the patient, benefit will be derived from the free use of pulv. ipecac. comp., and particularly if this combination should happily act as a diaphoretic.

A COURSE OF LECTURES ON ORGANIC CHEMISTRY,

DELIVERED IN THE

Laboratory of the Royal Institution of Great Britain.

By DR. A. W. HOFMANN, F.R.S.

Professor at the Royal College of Chemistry.

Lecture VII.

In the short account which I gave you, in the last Lecture, of cyanogen and its compounds, I have repeatedly mentioned the beautifully crystallised salt which bears the commercial name of yellow prussiate of potash. I have stated, that this compound may be viewed as a double salt of cyanide of potassium and cyanide of iron, one equivalent of the latter to two equivalents of the former, as indicated by the formula

$$2\,KCy,\ Fe\ Cy.$$

This view is supported by the manner in which the salt is formed. Cyanide of potassium, when added to a solution of sulphate of iron, produces blue cyanide of iron. This substance, with an excess of the cyanide, affords a yellow solution, yielding, on evaporation, the yellow compound. You will see directly, that the deportment of this compound becomes more intelligible, if a somewhat different mode of viewing it be adopted. If it were an ordinary double salt, we should expect to see the iron indicated by the common re-agents for this metal, such as sulphide of ammonium, or carbonate of potassa. I hold in my hand crystals of a true double salt of sesquichloride of iron, and chloride of potassium. The solution of this yields, with sulphide of ammonium, a black precipitate, and with carbonate of potassa, it is precipitated as the well-known red sesquioxide of iron. But a solution of the yellow prussiate is not affected in the slightest degree by these re-agents. This deportment shows, that the iron in this substance must be in a peculiar state of combination, different from that in which it exists in ordinary saline compounds.

The extraordinary manner in which iron is present in the yellow prussiate, together with the general behaviour of this salt, have induced chemists to assume in this compound the existence of a peculiar molecular group, which contains the iron, and the whole of its cyanogen associated, as a *new organic radical*, to which the term *ferrocyanogen* has been applied. This radical, which is composed of one equivalent of iron and three equivalents of cyanogen, is invested with the characters of cyanogen itself; like cyanogen, it is capable of combining with the metals and with hydrogen, but the combinations take place in more complicated proportions. While we found cyanide of potassium to consist of equal equivalents of cyanogen and potassium, we find in ferrocyanide of potassium two equivalents of the metal to one of the radical. On account of the frequent occurrence of ferrocyanogen compounds, it has been found advisable to adopt a special symbol for the radical.

The symbol selected is $Cfy = Fe\ Cy_3$. Accordingly, we now no longer express the composition of the yellow prussiate by the formula

$$2\,KCy,\ Fe\ Cy,$$

but by the simpler term

$$K_2\ Cfy,$$

which represents the salt in the light of a binary compound, analogous to chloride, bromide, iodide, or cyanide of potassium. On adding solution of copper, silver, or lead to ferrocyanide of potassium, the potassium is replaced by copper, silver, and lead—salts of a perfectly analogous composition, viz.—

$$Cu_2\ Cfy \quad — \quad Ag_2\ Cfy \quad — \quad Pb_2\ Cfy$$

being produced. Salts of a similar formation, are obtained from almost all the metals, and the iron salt (which I shall mention directly more in detail), like the copper salt, has a very characteristic colour, and is frequently produced for the purpose of testing for this metal. In some cases, only half the quantity of potassium is replaced by the other metal. On adding chloride of calcium, or barium, for instance, to a solution of ferrocyanide of potassium, crystalline precipitates are formed, containing respectively—

$$\left.\begin{matrix}K\\Ca\end{matrix}\right\}\ Cfy \text{ and } \left.\begin{matrix}K\\Ba\end{matrix}\right\}\ Cfy.$$

The existence of such a series of salts leads to the question,

whether a peculiar acid may not exist in these compounds, just as we obtain hydrochloric, hydrobromic, and hydrocyanic acids from the chlorides, bromides, or cyanides.

Now, this acid actually can be obtained; it is termed hydroferrocyanic acid, *i.e.*, ferrocyanide of potassium, in which the potassium is replaced by an equivalent quantity of hydrogen; and it is formed under exactly the same circumstances as those in which hydrochloric, hydrobromic, and hydrocyanic acids are generated,—by passing a current of sulphuretted hydrogen through water in which ferrocyanide of silver or of lead is suspended, when the metals become sulphides, and hydroferrocyanic acid remains in solution; on evaporating the solution, the acid crystallizes. A more ready method of making this acid consists in decomposing ferrocyanide of potassium by means of concentrated hydrochloric acid, and shaking the mixture with ether, in which hydroferrocyanic acid is insoluble. The solution solidifies instantaneously into a crystalline mass.

Among the most interesting compounds of hydroferrocyanic acid are those which this acid forms with iron. On adding ferrocyanide of potassium to a solution of protoxide of iron, a whitish blue precipitate is obtained, the composition of which corresponds to the potassium compound. On exposure to the air, this compound gradually assumes a deep blue colour, which is more readily produced by oxidising agents, such as chlorine or nitric acid. This deep-blue compound is sesquiferrocyanide of iron, better known under the name of Prussian blue.

This beautiful compound is instantaneously precipitated, on pouring sesquichloride of iron into a solution of ferrocyanide of potassium.

The formation of this blue precipitate enables the chemist to ascertain the presence of a salt of sesquioxide of iron on the one hand, and of ferrocyanogen on the other.

I just told you that this compound is produced by adding an excess of cyanide of potassium to a solution of protoxide of iron, until the cyanide of iron is re-dissolved. Here is still the test-glass in which I performed this solution; the blue precipitate which is produced on adding sesquichloride of iron, convinces you that in this re-action ferrocyanide of potassium is actually generated.

The formation and the composition of Prussian blue claim our attention for a moment. In decomposing ferrocyanide of potassium by sesquichloride of iron, the whole amount of potassium of the former has to be converted into chloride of potassium by the chlorine of the latter. It is, therefore, necessary to employ such quantities of the two compounds as contain an equal number respectively of potassium and chlorine equivalents. Three equivalents of ferrocyanide of potassium contain 6 equivalents of potassium; the corresponding number of chlorine equivalents is present in 2 equivalents of sesquichloride of iron. Accordingly Prussian blue must contain the ferrocyanogen of 3 equivalents of ferrocyanide, and the iron of two equivalents of the sesquichloride.

The formation and composition of Prussian blue will become more intelligible by glancing at the subjoined diagram:—

$Fe_2\ Cl_3$ $Fe_2\ Cl_3$	+	$K_2\ Cfy$ $K_2\ Cfy$ $K_2\ Cfy$	=	K Cl K Cl K Cl K Cl K Cl K Cl	+	$Fe_2\ Cfy$ $Fe_2\ Cfy$ Cfy
2 equivalents of sesquichloride of iron.		3 equivalents of ferrocyanide of potassium.		6 equivalents of chloride of potassium.		1 equivalent of Prussian blue.

Prussian-blue is not easily affected by acids. In hydrochloric and sulphuric acids it is quite insoluble. Oxalic acid dissolves it; and the blue solution thus obtained is sometimes employed as an ink. The alkalies, on the other hand, decompose Prussian-blue with the greatest facility; the blue powder is readily converted into brown sesquioxide, ferrocyanide of potassium being regenerated.

Prussian blue is very extensively employed in printing and dyeing. In the latter operation, this substance is generally produced upon the fibres of the cloth; for this purpose, the cloth is "mordantized," as it is called by the dyer, that is, it is impregnated with a solution of sesquioxide of iron, more or less concentrated, according to the shade of blue which is required. The cloth, thus prepared, is immersed into a solution containing equal parts of ferrocyanide of potassium and sulphuric acid, dissolved in from fifty to to sixty parts of water, and gently heated. The blue colour appears almost immediately. In this manner, either the whole cloth may be dyed uniformly blue, or we may produce a blue pattern on a light ground, or even patterns of a different blue, if the cloth has been printed with mordants of different degrees of concentration. In the case of blue patterns being printed on coloured grounds, great attention has to be paid to the selection of the colour, which must not be affected by the acid solution of ferrocyanide of potassium. For the purpose of illustration, I have printed an iron mordant upon red and upon orange-yellow cloth. In order not to injure the red, the dying solution has to be used in a very dilute state; the orange, however, does not stand even this dilute solution. The orange becomes of a dirty brown, whereby the pattern is entirely spoiled.

There is still another mode of dyeing by ferrocyanide of potassium, to which I must briefly call your attention. In the preceding lecture, I exhibited to you the preparation of dilute hydrocyanic acid. This compound was produced by the action of acids upon ferrocyanide of potassium.

In this preparation there remains in the retort a light blue powder, generally considered as cyanide of iron, but which has a more complicated composition. This substance, like the light blue precipitate produced by ferrocyanide of potassium in solutions of salts of the protoxide of iron, assumes a deep blue colour when exposed to the air, or when treated with oxydising agents. These reactions are involved in the production of what is called "bleu vaporisé."

In order to dye by this process, the cloth is printed with a mixture of tartaric acid and ferrocyanide of potassium. Even at the common temperature, a slight decomposition takes place, and the printed portions assume a light blue colour. The decomposition is completed by the action of steam. For this purpose, the cloth is placed between flannel, and submitted, for about a quarter of an hour, to the influence of steam. By this process, the pattern becomes only slightly darker; but on treating the cloth subsequently with a solution of chromate of potassa, the pattern assumes a magnificent blue colour.

Prussian blue is, as I have just now stated, readily changed by the action of alkalies, which convert it into sesquioxide of iron, a soluble potassium salt being reproduced. This deportment is likewise frequently made use of by the printer in producing white patterns upon a blue ground.

The following experiment will illustrate this application:—A piece of woollen cloth is covered with a layer of common starch-paste, with which some caustic potassa has been mixed. It is covered with a paper into which a pattern is cut. By pressing upon this paper, a piece of calico died with Prussian blue, the pattern appears yellow, owing to the formation of sesquioxide of iron. If the calico now be carefully washed, in order to remove the ferrocyanide of potassium which has been reproduced, the iron may be easily dissolved from the cloth by steeping it in hydrochloric acid, and washing it again, when the pattern will be found perfectly white.

Ferrocyanide of potassium furnishes to the chemist a great many substances of considerable scientific interest, some of which are becoming, moreover, of a daily increasing importance in the arts and manufactures.

I will mention to you briefly one or two. If a current of chlorine gas be passed through a solution of ferrocyanide of potassium, a chemical decomposition becomes at once manifest by the change of colour, the solution turning to a deep brown. On evaporating the solution a splendid ruby-red salt is deposited, which the dyers call the red prussiate of potash. The process which gives rise to the formation of this compound is very simple. This salt is generated by the coalescence of two equivalents of ferrocyanide of potassium, from which the chlorine removes one equivalent of potassium. A glance at the subjoined formula will facilitate the conception of this change—

$$\left.\begin{matrix}K\\K\end{matrix}\right\}Cfy \qquad \left.\begin{matrix}K\\K\\K\end{matrix}\right\}\begin{matrix}Cfy\\Cfy\end{matrix}$$
$$\left.\begin{matrix}K\\K\end{matrix}\right\}Cfy \quad + \quad Cl \quad = \quad \qquad + \quad K\ Cl$$

Hence the composition of this red salt is expressed by the formula—

$$K_3\ Cfy\ 2$$

It presents, again, all the characters of a binary substance, and chemists consider it as a combination of 3 equivalents of potassium, with a molecular group, containing the elements of two equivalents of ferrocyanogen; in short, with another compound radical, of a still more complicated character, to which the name of "ferricyanogen" has been given. By precipitating this salt with metallic solutions, we obtain a series of salts, in which the potassium is replaced successively by various metals—lead, silver, etc.; and by submitting one of these salts to the action of sulphuretted hydrogen, we lastly replace the metal by hydrogen, and obtain the acid corresponding to the series, viz., hydroferricyanic acid.

Potassium salt	$K_3\ Cfy_2$
Lead salt	$Pb_3\ Cfy_2$
Silver salt	$Ag_3\ Cfy_2$
Hydrogen salt or acid . .	$H_3\ Cfy_2$

In all these compounds, two of ferrocyanogen (*i.e.*, one of ferricyanogen) are united with three equivalents of the metal.

The iron salt, again, is one of the most interesting compounds of this series. This is obtained by precipitating the solution of ferricyanide of potassium by means of a protosalt of iron, when a deep blue precipitate takes place, which you might believe to be Prussian blue, but which, in reality, is a compound belonging to the above series, and represented by the formula

$$Fe_3\quad Cfy_2$$

while Prussian blue has the composition

$$Fe_4\quad Cfy_3.$$

The ready formation of this precipitate distinguishes the ferricyanide from the ferrocyanide, which, as you recollect, gives a light blue precipitate; but the distinction becomes even more marked when it is observed, that salts of the sesquioxide of iron are not affected in the slightest degree by the red prussiate of potash, while, with the yellow prussiate, they furnish prussian blue. The blue colour produced from ferricyanide of potassium is likewise made use of in the arts. It is known by the commercial term of "Turnbull's blue." When the ferricyanide is to be used in calico-printing, the cloth, mordantized with sesquioxide of iron, has to be previously treated with a reducing agent capable of converting the sesquioxide into the protoxide of iron. You observe that the brown specimens of calico which I previously dyed with the yellow prussiate, are not altered by the solution of the red salt.

If, however, the cloth, having been sprinkled with a solution of protochloride of tin (which deprives the sesquioxide of iron of part of its oxygen) be introduced into the solution, every part acted on by the tin salt assumes at once a deep blue colour.

There remains just time to say a word or two regarding another series of compounds, which are closely related to those before mentioned. I allude to the salts discovered, some time ago, by Dr. Playfair, and described by this chemist under the name of "nitro-prussides." They are formed by the action of nitric acid upon both ferrocyanides and ferricyanides. Their formation will be best understood by comparing their composition with that of the ferricyanides. Suppose ferricyanide of potassium is acted upon by nitric acid; a powerful action takes place, with copious disengagement of red fumes, which always indicate a process of oxidation.

The solution now contains a great variety of substances,—among others, a considerable quantity of common nitre,—from which the nitroprusside of potassium is separated by a series of operations. The composition of ferricyanide of potassium is

$$K_3\ Cfy_2;$$

or, if we replace the symbol of ferrocyanogen by its value,

$$K_3\ Fe_2\ Cy_6.$$

The new potassium salt has the formula—

$$K_2\ Fe_2 \begin{cases} Cy_5 \\ NO. \end{cases}$$

From this it appears, that the nitric acid has abstracted one equivalent of potassium and one equivalent of cyanogen, whose place is now occupied by an equivalent of laughing-gas,—*i.e.*, of nitric acid, which has lost four equivalents of oxygen.

The nitro-prussides are remarkable for the facility with which they crystallize, as is obvious from this beautiful series of compounds, for which I am indebted to the kindness of Professor Playfair.

The finest salt of the series is the sodium salt, which crystallizes in beautiful ruby-coloured rhombs.

The nitro-prussides have not yet received any application in the arts. They furnish, however, an exceedingly delicate test for soluble sulphides, with which they strike a most beautiful violet tint. It was this violet tint which had been occasionally observed, when the liquid obtained by boiling Prussian blue with nitric acid was saturated with ammonia and sulphide of ammonium, that led to a more minute examination of this re-action, and to the discovery of the nitro-prussides.

ORIGINAL COMMUNICATIONS.

OUGHT THE TONSILS OR UVULA TO BE EXCISED IN THE TREATMENT OF DEAFNESS?

By JOSEPH TOYNBEE, F.R.S.,

Fellow of the Royal College of Surgeons, Aural Surgeon to St. Mary's Hospital, Consulting Aural Surgeon to the Asylum for the Deaf and Dumb, and Consulting Surgeon to the St. George's and St. James's General Dispensary.

I FEEL that the surest way for a medical man to support his own dignity and that of his Profession, is to search perseveringly after the truth, turning neither to the right hand nor to the left, but laying the results of his labours before competent medical or scientific tribunals. I have always endeavoured to pursue this course; and, when urged to expose the fallacy of some nostrum, or the absurdity of some novel procedure in reference to the diseases of the ear, I have declined to do so, from the conviction, that the most effectual mode to extinguish error is not so much by attacking it, as to throw upon it the light of truth, under which it must inevitably wither and die; and as empiricism was driven out of its former stronghold, the department of diseases of the eye, when those diseases were studied earnestly by scientific men, so likewise will aural surgery stand out honourably when investigated with patience and zeal. Nor should I now deviate from the course I have hitherto pursued in wholly abstaining from personal controversy, did I not feel it my imperative duty to the Profession and the public to remain silent no longer.

In a paper lately read before the Royal Medical and Chirurgical Society, on the Diagnosis and Treatment of Diseases of the Eustachian Tube, I took the opportunity of impressing upon the members the fact, that "enlarged tonsils are never the cause of obstruction in the Eustachian tubes." In a letter in the *Medical Times and Gazette*, of April 23, Mr. Yearsley denies the accuracy of my statements, and he takes occasion again to advocate the operations on the tonsils and throat, which he says he has performed more than three thousand times. Feeling convinced that such operations have been productive of the most calamitous results, and that my silence now would be construed into a tacit admission of their propriety, I submit the following observations respecting them.

Mr. Yearsley advocates the excision of the tonsils, uvula, or portions of the palate, in *four* distinct classes of cases, which I will examine separately.

The first class consists of those cases where the tonsils "press on the mouths of the tubes so as to cause obstruction or occlusion."(a)

An opinion formerly obtained a certain amount of credence in the medical Profession, that enlarged tonsils can press upon and close the faucial orifices of the Eustachian tubes. There can be no doubt that this opinion was erroneous. In order to convince himself that it is so, the surgeon needs only to make an examination of the relative position of the tonsil and of the trumpet-shaped extremity of the Eustachian tube; he will find the tonsil situated from an inch and a quarter to an inch and a half below the tube; he will find the tonsil placed between the arches of the palate, the palato-glossus, and

(a) Yearsley on Throat Deafness, page 4.

palato-pharyngeus muscles, the latter muscle separating the tonsil from the tube; and he will find the Eustachian tube close to the base of the skull, against the basilar process of the occipital bone, and surrounded by the tensor and levator palati muscles, the office of which I have recently shown in a paper read before the Royal Society,(a) is to open the tube during the act of swallowing; at all other times the tube is closed, and the tympanum is a shut cavity. Repeated examinations have convinced me, that, even should the tonsil enlarge to its greatest possible and known extent, it never reaches the Eustachian tube; for, with the enlargement of the tonsil, the palato-pharyngeus muscle also hypertrophies, and effectually separates them; that, as a general rule, the Eustachian tube can be shown to be pervious by the observer listening to the patient's ear with the otoscope, while the patient swallows some saliva with the mouth and nares closed, (that when the tube is obstructed this obstruction depends upon the thickening of its own lining membrane,) and that the deafness, thought to be attributable to the enlarged tonsil, arises from a co-existent thickening of the mucous membrane of the tympanum. I do not stand alone in the opinion here expressed. I feel confident that the intelligent members of the Profession fully agree with me. Kramer, in his Treatise on the Diseases of the Ear, translated by Dr. Bennett, and published so far back as the year 1837, says, at page 237, "I altogether deny the connexion of closure of the Eustachian tube with enlargement of the tonsils. I have frequently seen this enlargement, both with and without the least dulness of hearing, but always with the Eustachian tubes perfectly free. I confess that I cannot at all comprehend, how swollen tonsils should press together the mouth of the Eustachian tube, and close it against the admission of air; and may assert that none of the practitioners who have admitted such mechanical effects, have ever satisfactorily investigated, by means of the catheter, the closure of the Eustachian tube, in any one single case of the kind. This reproach applies even to Itard. From his very defective method of investigation, he ought not to have been surprised that so frequently no melioration of the dulness of hearing occurred in those cases in which he attempted to cure it by excision of the tonsils." Mr. Harvey, who has written a book to demonstrate, not merely the uselessness, but also the very injurious effects arising from excision of the tansils, has arrived at the conclusion, "that the enlarged tonsil or elongated uvula does not, *per se*, give rise to imperfect hearing."(b) But it is useless to quote further authorities against this view, for Mr. Yearsley's own words are a sufficient refutation of it. He says, (*Medical Times and Gazette*, April 23, 1853,) "I saw cases of very large and projecting tonsils, and no deafness. I saw other cases, with thickening about the region of the tonsils, and I passed in my finger to feel between the arches for the condition of the glands, and they were frequently found enlarged and stealing upwards towards the mouths of the Eustachian passages. Thus it was that I arrived at the conclusion, that enlarged tonsils did sometimes produce deafness, and upon this idea I proceeded to act"! Mr. Yearsley then sums up his conclusion, "that occlusion of the tube does occasionally arise from the presence of an enlarged tonsil." Now, I ask any anatomist or surgeon whether Mr. Yearsley has adduced a particle of satisfactory evidence in favour of the position, that the Eustachian tubes are pressed upon by enlarged tonsils; is it not, on the contrary, most palpable, from his own words, that, with all his anxiety to do so, he can bring forward no proof in support of his position. But, supposing him to believe that the Eustachian tube is pressed upon "occasionally" by an enlarged tonsil, and that deafness is thereby produced, much mischief might not result from his "occasionally" excising a small portion of the hypertrophied gland.(c) My own opinion, however, is, that this excision may generally be dispensed with except in extreme cases; that it should be resorted to only where the health evidently suffers from the enlargement, and where the tonsils interfere with the functions of respiration or deglutition. I have seen cases where the tonsils have nearly touched in the median line, but where they were reduced, and the deafness cured, by general remedies and topical applications, and they subsequently assumed a size no larger than normal. But, if Mr. Yearsley believes that occlusion of the Eustachian tube only "occasionally" takes place from the pressure of an enlarged tonsil, how has it happened that his experience in tonsil-cutting has exceeded three thousand operations?(a) And I am thus brought to the second division of my subject.

Secondly, Mr. Yearsley advocates the excision of the tonsils in cases "in which no obstruction to the Eustachian tube could be supposed, but where the improvement of the hearing could be explained in no other way than by supposing it to depend on an improvement caused in the mucous membrane of the throat, which in its turn improved the state of the ears."(b)

In page 9 of the same brochure, it is asserted, that two-thirds of all cases of deafness arise out of morbid conditions of this mucous membrane of the ear; allusion is made, in proof of this assertion, to 2000 cases treated in public and private practice. Then comes the following passage:—"In 120 dissections of deaf cases, the aural mucous membrane was diseased in no less than 91 cases, or upwards of three-fourths of the number examined." This reads as if the dissections were by the author of the pamphlet; but they are evidently those published by myself, in the second series of Researches into the Pathology of the Ear, published in the 25th Volume of the "Medico-Chirurgical Transactions," 1843, and they are cited by Mr. Yearsley as "a remarkable corroboration of the novel views of the nature and treatment of deafness previously developed by him on various occasions." Now, it is right to state, that, instead of "120 dissections of deaf cases," they were the dissections of 120 ears, of which only two were from a person known to be deaf. It is true, that, in 91 specimens, a greater or less derangement of the mucous membrane of the tympanum was present, but which it is absurd to imagine could have been affected by tonsil-cutting. In what way, for example, could this operation influence the membranous bands connecting together the ossicles and various parts of the tympanum,—a diseased condition by far the most frequent in the 120 dissections? Could a rigid condition of the chain of bones, or anchylosis of the stapes, be relieved by it? I do not believe that even a thickened state of the mucous membrane of the tympanum would be relieved in the most remote degree; for, in the sixth series of Researches into the Pathology of the Ear now before the Medico-Chirurgical Society, one of the results of between 1500 and 1600 dissections is to show, that, even in cases of co-existing hypertrophy of the mucous membrane of the fauces and tympanum, the lining membrane of the inner half of the Eustachian tube remains quite healthy; I have seen at least one case in which, during scarlet fever, the mucous membrane of the fauces and tympanum were both ulcerated, and yet the principal part of the lining membrane of the Eustachian tube, that which is wholly protected, was healthy. In this second class of cases, it is evident, that the operation of excision of the tonsils could, therefore, have been of no benefit, and temporary improvement, in any case, has, doubtless, arisen from the excitement of the nervous system. That such operations have been followed by an aggravation of the deafness, my own experience, corroborated by that of Mr. Harvey, fully testifies.

Thirdly, Mr. Yearsley advocates the excision of the *Uvula* in cases of deafness.

He says:—(c)"Guided by a sound and wholesome experience, I have not hesitated, in certain cases of deafness, to remove the uvula;" and, at page 20, adds:—"Irritation of the uvula, as I have explained in a former section, often spreads from the uvula to the ear, through the Eustachian tubes, by continuity of surface; but I am also persuaded, by extensive observation, that an irritable uvula frequently deranges the organ of hearing by purely sympathetic irritation of the ear. I have seen many cases in which *tinnitus aurium* was manifestly excited in this manner."(d) The only ground for this operation which I have been able to meet with in Mr. Yearsley's brochure is the fact cited in the

(a) On the Muscles which Open the Eustachian Tube.
(b) On the Enlarged Tonsil, page 21.
(c) I have no doubt, that in the very small number of cases of deafness benefited by the excision of the tonsils, the temporary relief that has been afforded has arisen from the diminution of the congestion of the mucous membrane of the tube.

(a) His words are, "What Mr. Toynbee's experience may be in tonsil-cutting I know not, but I may state, that my own has extended over many years, and has exceeded 3000 operations."—*Medical Times and Gazette*, April 23.
(b) On Throat Deafness, p. 14.
(c) Loc. Cit., p. 14.
(d) Not a single fact in proof of these several assertions is adduced.

paragraph preceding the above, that, "in the operation for the removal of an elongated uvula, patients frequently cry out, from the severe pain caused within the ear, (which ear is not stated,) though little is felt at the point of excision."

Fourthly, Mr. Yearsley advocates the excision of a portion of the soft palate in cases of deafness.

He says, at page 7:—"There is yet another probable cause of mechanical obstruction of the mouth of the Eustachian tube, occurring in persons of middle and advanced life—persons who have suffered much from dyspepsia as the result of improprieties of diet, from mental anxiety, or from general debility. In these cases, a relaxed condition of the mucous membrane of the throat is observable. It is seen hanging loose and flabby, and, as it were, in folds. Here I have sometimes suspected an overlapping of the mouths of the Eustachian tubes by the loose mucous membrane; and the results of treatment have occasionally justified the opinion I had formed, for, shortly after excision of a small slip of mucous membrane from underneath the arches of the palate, amendment more or less considerable has taken place."

Such, then, are the four classes of cases in which Mr. Yearsley advocates excision of the tonsils, uvula, and portions of the soft palate, in the treatment of deafness. I think it may be fairly asserted, that, even in the first class of cases, he has not made out any just grounds for the performance of the operation; that, in reference to the three succeeding classes, he has not adduced even a shadow of evidence to convince the Profession that these operations are to be tolerated; but that, on the contrary, they are opposed to every rational and scientific principle which should guide a surgeon in the performance of an operation, must be manifest, I think, even to a tyro in medicine.(a)

But, in addition, these operations become wholly unjustifiable when the extent to which they are performed, and the evils which result from them, are fully appreciated. I can say, from my own experience, that they have been performed in every possible variety of deafness, from cases where the disease has evidently been in the brain or labyrinth, where the nervous system of the ear has partaken of the general debility of the system, down to those of hypertrophy of the membrana tympani. Indeed, it was only requisite for a patient to be deaf, in order to secure the excision of his tonsils, or some part, at least, of his throat, being cut. And what has been the result of these operations? In the first place, I have no hesitation in stating, that my own experience agrees with that of Mr. Harvey, and that many cases of deafness have been much increased by them. Mr. Harvey says(b):—"Some thousand operations have been performed on man and woman, the greater number seemingly without a reason or excuse. The Profession is entitled, surely, to be made acquainted with the results—results which, I fear, when known, will be found to be, though remote, not the less melancholy." In the previous page, Mr. Harvey says:—"Such excision (of the tonsils) is by no means calculated to afford relief to defective audition; nay more, it is more likely to prove injurious, in many cases, than serviceable. The same experience has satisfied me that the removal of the tonsils gives rise occasionally to deafness;(c) that it enfeebles the frame, injures the constitution, affects the system in general, and alters the nutrition of the body." But the local injury is not confined to the ear. I have met with many cases; and some of these, I regret to add, have occurred in professional singers, whose voices have been completely ruined by them. Even while writing this paper, a celebrated physician mentioned to me a case of the kind. He said:—"Poor Miss A., a professional singer, too, was induced to submit to the operation; I would not assent; I endeavoured to dissuade her from going, and refused to accompany her; the tonsils were excised, and she has never sung since." The voices of some patients have been so much injured by the operation, that they have never been able to read aloud afterwards; the ordinary voice has been weakened, a difficulty in swallowing has been experienced, and there has ever remained a sense of dryness in the mouth and throat, accompanied by thirst.

(a) I have not deemed it requisite to say a single word in proof of the entire absence of all reasonable ground for the excision of the uvula and portions of the palate. I have thought the above quotations in favour of these operations a sufficient condemnation of them.

(b) Loc. Cit., p. 33.

(c) This fact may be accounted for from the insertions of the muscles which open the Eustachian tube, the tensor and levator palati, being affected in the operation.

A second way in which the excision of the tonsils acts injuriously is by deranging the general health. In addition to their local influence upon the mouth and fauces, the tonsils seem to have some intimate relation with other organs, especially in woman. I have seen numerous instances in which the patients have dated the origin of a general debility, with its various accompaniments, to the extirpation of their tonsils. Indeed, the day in which the tonsils have been extirpated has been mentioned to me by several as one of the bitterest in their lives. Here is another corroborative case from Mr. Harvey(a):—"A young lady, about eighteen years of age, had the tonsils removed for apparent obstruction, as well as for some thickness of the voice; she was of a ruddy complexion, and the mammæ were developed. A few days after the operation, her health became deranged; her bosom sank, and great disturbance was complained of in the other functions. Here there can be no doubt of the close connexion between the mammary gland and the tonsils. My friend Mr. Hunt detailed to me the particulars of a case of a young lady, whose health sympathised in a similar way with the excision of the tonsils." Mr. Harvey also says(b):—"The result of my observation and experience is, that excision of the tonsils has also produced considerable disturbance in the pulmonary apparatus, both in the mucous membrane of the bronchi, and in the parenchyma of the lung itself." I myself have frequently seen cases in which a pulmonary affection has dated from the extirpation of the tonsils; and I do not hesitate to say, that there is scarcely a medical man of large practice who could not add his testimony to the fact of the injury, local or general, which has accrued to patients from tonsil-cutting, and other operations on the throat.

I cite the following cases, in illustration of the evil effects of excision of the tonsils, out of the many that have fallen under my notice:—

Miss W., aged 25, of a weakly constitution, consulted me a short time since on account of deafness. She says that her mother was deaf, and two of her cousins are so. Eight years ago, after a severe cold and pain in the ears, she became dull of hearing, and the affection gradually increased. She requires to be spoken to through an elastic tube. She complains of a loud rushing noise, which comes on suddenly in an aggravated form whenever she is excited. She is also more deaf when she is weak. On examination, each meatus and membrana tympani was found in a healthy state, and the Eustachian tubes pervious. This lady stated, that a few years previously she had consulted a gentleman on account of her deafness, and that upon looking into her throat, he at once said, "I must cut outyour tonsils; that will certainly cure you." The lady's aunt slightly expostulated; however, the gentleman at once proceeded to perform the operation, "and, after several unsuccessful attempts to lay hold of the tonsils, he at last managed to get them both out, the parts removed being about the size of a small almond. This lady's report is, that "since the removal of the tonsils the deafness seriously increased, that her voice has been so weak that she has been seldom able to read aloud, and then never for more than a quarter of an hour at a time, which she considers a very severe deprivation. Although she previously had a very fine voice, she is now disabled from singing, has frequent pain in the fauces, a constant sense of dryness in the mouth, and perpetual thirst." Her general health has also materially suffered, and she is now under the care of a celebrated physician accoucheur in London. Upon looking into this patient's throat, there was no vestige of the tonsils. Dr. Copland, who saw this case with me, said "the operation was quite unjustifiable; that organs had been cut away which exercised very important functions in the animal economy." Dr. Copland added, in a note to me, that he "considered these operations of cutting off the tonsils and uvula more or less injurious, and that he never knew a person who could sing, to preserve their voice afterwards, dryness of the throat and hoarseness being generally complained of."

Another young lady, about the same age, and whose case was as similar as possible to the above, and who was under my care, thus writes to me:—"The first time I paid the gentleman a visit, he said decidedly the tonsils ought to be removed, and expressed some surprise that they had been allowed to remain so long. He assured me, very positively, that their removal would cure the deafness, which, he said,

(a) Loc. Cit., p. 28. (b) Ibid., p. 31.

was solely caused by their enlargement, and also attributed a very frequent sore throat, I was at that time subject to, to these same unfortunate tonsils; though now that I am better acquainted with the nature of enlarged tonsils, I believe mine to have been most innocent, and not in any way to be blamed for my infirmities; they certainly never inconvenienced me, and, when removed, were not larger than the end of the little finger. The gentleman removed them the second visit I paid him, and just before doing so, told me not to be surprised if the cure was not immediate, as it might be some weeks. The day after the operation, the throat became ulcerated on both sides, and very much swollen, and remained so for a week or ten days, and it was with great difficulty that I could swallow even liquids in very small quantities; he said, I must have taken cold. In the frequent visits I paid him afterwards, he always put caustic to the throat, stuffing a sponge which contained it as far down as possible. The first time, it gave me intense spasm to an extent I hope never to have again; it frequently had the same effect afterwards, but in a milder form, and always made the throat very sore for a day or two." This patient, who was brought to me by Sir John Liddell, had partial anchylosis of the stapes to the fenestra ovalis. I need not say, that she was not in the slightest degree benefited by the operation; but it was the opinion of her mother and others, that her health was seriously affected by it. She has lately been a great sufferer, and confined to her room for some months with an affection of the chest.

It is possible that some of my readers may think that I have laid too much stress upon the injurious results which have followed the excision of the tonsils, and other operations upon the throat. From the large number of cases I have myself met with in my own practice,—from the numerous cases detailed to me by others,—from the attempts made by medical men, especially by the late Mr. Liston, to put a stop to the operation, and from the fact that 3000 operations have been performed by one gentleman alone, I do not think I have magnified the extent of their evil effects. That they must have been keenly felt by society, is shown by the fact, that one of the most popular of modern poets, who did not raise his voice without due cause, thought it his duty to aim the lash of his satire at these operations of "tonsil-cutting," as well as at the system of unceasingly injecting the Eustachian tubes.(a)

THE LONDON AND PROVINCIAL PRACTICE OF MEDICINE AND SURGERY.

ST. BARTHOLOMEW'S HOSPITAL.

FIBRO-PLASTIC GROWTH IN THE HEAD OF THE TIBIA —AMPUTATION OF THE THIGH—RECOVERY.

[Under the care of Mr. PAGET.]

Among those tumours which recent researches with the microscope have separated from the family of cancers, are the very interesting group known by the name of "fibro-plastic." This designation, given to them by Lebert, to whom, in fact, belongs the merit of having been the first to describe their distinctive peculiarities, is open to objection, on account of its liability to mislead the uninitiated into the expectation of finding a similarity between them and the common fibrous tumours on the one hand, or to half-inflammatory consolidations of parts resulting from the organisation of effused plastic lymph on the other. No approach to such similarity, however, exists The fibro-plastic tumour is an heterologous formation, differing widely in its *prima facie* characters from all innocent growths, and, in its microscopic ones, alike from the cancers and from all natural tissues. In its softness, succulency, and proneness to be the seat of interstitial extravasation of blood, it closely resembles medullary cancer, and is, in fact, often not distinguishable therefrom, even by the most practised observers, without instrumental assistance. It does not usually interfere with the general health, or induce any degree of "malignant cachexia;" it does not reproduce itself in internal organs, and, for the most part, does not return after excision. It is not, however, by any means an indolent tumour, but often increases rapidly in size, and, if not eradicated, invariably goes on from bad to worse. There is an open field for future investigations to determine the true relations of the fibro-plastic and malignant growths; for, in the history of the former, it must be admitted, that there do occasionally occur exceptions to most of the above statements. We recorded, a few weeks ago, a case in which scirrhous cancer of the cicatrix followed five years after the removal of the mammary gland for fibro-plastic disease. Such a case, taken singly, of course proves nothing whatever, since cancer may develope itself in the cicatrix of an ordinary wound; but were the sequential relation between the two diseases shewn to be at all frequent, the fact would be of great interest.

The following case attracted much attention while in the hospital, and we record it partly because it affords a very good example of the practical advantages as to prognosis of the minute pathology of the present day. We are indebted to the notes taken by Mr. May for most of the particulars concerning it.

Ann Brown, a healthy-looking woman, aged 24, was admitted on October 13, 1852. The lower part of her left knee presented a rounded enlargement, and on handling it there was found to be growing from the head of the tibia a mass of uneven outline and considerable size. It felt firm in some parts, and in others soft, and as if fluctuating. The main bulging was forwards, and to the outer side. She stated that she had first felt pain in the bone about eighteen months ago, when it commenced without any known cause, and continued for ten months before she perceived any enlargement of the part, which then began to swell and gradually increased to its present size. For some months she had been quite unable to use the limb. A few days after the admission of the patient, Mr. Paget passed a grooved needle into the centre of one of the softest parts of the tumour, so deep that it must have entered the head of the tibia. Nothing but blood escaped. Under these circumstances the diagnosis of a malignant growth from the bone was confidently pronounced, and amputation above the knee accordingly decided on.

Oct. 16.—The patient having been put under the influence of chloroform, Mr. Paget removed the limb by a double flap amputation in the lower third of the thigh. Nothing of especial interest occurred either in the operation or the subsequent treatment. The patient left the hospital well, and with a good stump, on the 30th of November.

Examination of the Tumour.—Immediately after the operation Mr. Paget had the head of the tibia cut longitudinally through. It was very much enlarged, and in its cavity were numerous irregular cysts, some containing serous, others a bloody fluid. The walls of these cysts consisted of a softish juicy structure, in which blood was extravasated in many parts. Altogether the appearances presented were very similar to those of the cyst-containing variety of medullary cancer, and such was the opinion of its nature formed by all who saw it. The growth had not involved the articular surface of the bone, and the knee-joint was not in any way diseased. Mr. Paget afterwards subjected the solid portions of the tumour to careful microscopic examination, and detected in great abundance the cells peculiar to the fibro-plastic formations. (A diagram exhibiting the remarkable characters of these cells will be found at page 346, *Medical Times and Gazette*, for April 2, 1853.) In some clinical observations on the case made subsequently, Mr. Paget pointed out the importance of the microscopic conclusion, and expressed a confident opinion that the patient would not be liable to any return of a disease, which, judging by the naked eye, had been considered to be the worst form of cancer. He also remarked, that it was satisfactory to find that the treatment pursued was still fully justified, since such was the extent of disorganisation of the head and upper part of shaft of the tibia, that no degree of success could have been hoped for from a milder measure than amputation above the joint.

THE LONDON HOSPITAL.

EXCISION OF A LARGE AND ALMOST SOLID BURSAL TUMOUR—RECOVERY.

[Under the care of Mr. CURLING.]

Letitia Murray, aged 46, was admitted February 15th, 1853, on account of a solid feeling tumour, the size of a large orange, in front of her right patella. She had formerly been engaged in housemaid's work, when the bursa was constantly subject to attacks of inflammation; but, having been married for twelve years, she had during that time not done much kneeling. The tumour had, she stated, continued to increase in hardness; but, not occasioning her much annoyance, she had not cared to submit it to treatment until within the last few weeks, when the formation of an abscess in

(a) Thomas Hood, in "Poems of Wit and Humour." Moxon, 1852. P. 17.

its substance had prevented her from attending to her household duties. The mass was very hard and firm, not yielding any sense of fluctuation. It was fixed to the patella, and in its middle was the orifice of a sinus, communicating with the abscess before mentioned. On February 24th, Mr. Curling had her brought into the operating theatre, and placed under the influence of chloroform. The knee being bent, he then made two vertical incisions in front of the tumour, including a narrow elliptical piece of skin, together with the orifice of the sinus; and the skin having next been dissected from its sides, Mr. Curling cut off its anterior three-fourths without attempting to separate its base from the patella and other parts beneath. Some further slices having been made from the sides of the portion left behind, the operation was complete, and the wound was now covered with wet lint. In making some brief clinical observations afterwards, Mr. Curling remarked, that he believed he had avoided the risk of either wounding the synovial membrane of the knee-joint, or of so nearly exposing it, that the subsequent inflammation might possibly involve it, by *not attempting to dissect away the base of the tumour*; having watched the progress of a similar case, he had no doubt but that the remaining portion would be got rid of quickly by the suppurative process. The result quite confirmed this expectation; two months subsequent to the operation, the large wound was quite healed without any remaining solidification of its base. The patient had in the meantime progressed remarkably well, suffering very little local pain, and no constitutional disturbance.

The walls of the excised tumour were rather more than an inch in thickness, pale, dense, and fibrous looking, in its centre was a cavity capable of containing a wallnut, in which was a glairy, gelatinous fluid of half-solid consistence. Growing inwards from its lining membrane were numerous small masses of soft, yellow lymph, adherent together in a bunch-like arrangement, and probably illustrating the first stage in the formation of intra-bursal concretions (melon-seed-like bodies). Some months ago we saw at University College Hospital a woman, in front of whose knee was a solid bursal tumour very similar to the one above described. Mr. Marshall, under whose care the patient was, informed us, that he intended to remove the tumour when the patient, who was then pregnant, should have got well over her confinement. Another variety of this class requiring the same measure, lately occurred at St. Thomas's Hospital, under Mr. Simon's care. The tumour, quite solid, and about the size of a marble, was just below and to the inner side of the right patella. During kneeling it pressed, not upon the patella, but into the joint, and kept up great irritation. It appeared to be either a consolidated adventitious bursa, or a development in the wall of a larger one. Mr. Simon made a straight incision, about an inch long, directly over it, and having passed a strong tenaculum through its substance, dragged it forwards, and readily dissected it out. The wound soon healed.

THE TREATMENT OF ENLARGED BURSÆ OVER THE PATELLA BY FREE INCISIONS.

Authorities differ much concerning the propriety of puncturing inflamed bursæ. Sir B. Brodie and Mr. S. Cooper recommend the practice only when other means have failed, and unite in deeming it unfitted for indiscriminate adoption. Dr. Monro has known instances in which amputation has been necessitated by it. As we are in the habit of seeing tumours of this class treated by free incisions at this hospital, in cases under the care of Mr. Curling and Mr. Wordsworth; as also less frequently at St. Thomas's, under Mr. Simon; the statement may, perhaps, not be uninteresting to our readers, that we have never yet seen any evil result from it. On the contrary, cases so treated, as far as our experience has gone, have for the most part recovered rapidly and completely, without the occurrence of constitutional disturbance or severe local inflammation.

REMOVAL OF A LARGE SUPPURATED CYST IN THE BUTTOCK—RECOVERY.

[Under the care of Mr. WARD.]

We are not at all certain as to the exact nosological position in which the tumour we are about to describe should be placed. Ellen Hudson, aged 25, in good health, was admitted on April 5. In the middle of her left buttock, deeply placed, was a soft-feeling, moderately-circumscribed mass, the size of a very large fist. It was not at all tender, slightly moveable, and the surrounding parts were not in any way thickened or consolidated. She had first noticed it as a soft lump, about as large as an egg, three years ago, and it had since steadily increased, without having at any time occasioned the slightest pain. Its progressive increase in size was the only symptom which alarmed her, and made her desirous for its removal. Most of the surgical staff of the hospital examined the tumour carefully, and the opinions were about equally divided as to whether it contained fluid, or was composed of fat. On April 14, the patient having been placed on the operating-table, with the thigh bent and the buttock made tense, Mr. Ward passed into the centre of the tumour a small exploring trochar, and a gush of pus flowed from the canula. He then made a free incision in the integuments over the tumour, and, having evacuated about ten ounces of thick pus, dissected out a very tough-walled cyst, in which it had been contained. This cyst was remarkably strong, and adhered closely to the surrounding parts, especially to the glutei muscles on which it lay; its external surface was smooth; the internal vascular, and slightly shreddy. Some small vessels which bled having been ligatured, the wound, which was of necessity large, was closed by sutures and compress. It has since gone on remarkably well, and is now nearly healed. The question as to the nature of the cyst still remains a very difficult one, and it must be noted that the situation is one in which such formations are very rarely met with. Was it a chronic abscess, an hydatid abscess, or a suppurated bursa? Its history and the character of its smooth and comparatively thin walls were opposed to the first supposition; and to the second, was the absence, after a careful microscopic examination by Mr. Ward, of any supporting evidence. We believe Mr. Ward inclines to the last-mentioned diagnosis. It is well known, that bursæ mucosæ exist in a host of places not mentioned by anatomists, and also, that adventitious ones may be formed almost anywhere. That it should have gone through its whole course, and *suppurated* without giving pain, is, however, very unusual.

CENTRAL LONDON OPHTHALMIC HOSPITAL.

AFFECTIONS OF THE EYELIDS REQUIRING SURGICAL OPERATIONS.—ENTROPIUM.

[Under the care of Mr. HAYNES WALTON.]

Idiopathic entropium, the disease to which we purpose to devote the following observations, is one of frequent occurrence among the poorer classes, and often the source of extreme discomfort. In performing for its relief the time-honoured, and, for the most part, very successful operation of removing a fold of skin, we believe that it is common practice with many surgeons,—following a suggestion of Dr. Mackenzie's,—to snip away also a portion of the orbicularis palpebrarum, especially in cases which are thought to depend on irregular action of that muscle. The importance of the muscular element of the disease has of late, as some of our readers may perhaps be aware, been much insisted on by Mr. Walton. Attributing the inversion of the lid to the perverted action of the palpebral portion of the orbicularis, excited for the most part by conjunctival inflammation, that surgeon has proposed to adopt, as a constant rule of practice, what has hitherto been but the exception, and invariably to excise together with the fold of the skin, that portion of the muscle deemed to be at fault. We extract the following brief *résumé* of the various theories of this disease from a review of Mr. Walton's "Operative Ophthalmic Surgery," in the *Dublin Quarterly Journal of Medical Science* for February.

"Putting aside the absurdities of looseness of the skin covering the lids, or a morbid attachment of the integument to the orbicular muscle, as exciting causes of inversion, we may mention, that the doctrines of diseased curving or shrinking of the tarsal cartilages, contraction of the conjunctiva lining the lids, and irregular muscular action, have each had ingenious advocates; and if we take a case of entropium of pretty long standing, there will not usually be any difficulty in discovering all these conditions. Therefore, one observer may suppose that the alteration in the cartilage was the first morbid change; another, seeing the palpebral portion of the conjunctiva thickened and somewhat contracted, will consider it to have been primarily in fault; while a third, recollecting the action of the orbicularis muscle, will lay to the charge of its mal-action the entropium which exists. Thus there are really elements of truth in all these opinions; but then the proper question is, which of these changes is the primary one. We incline to the belief, that conjunctival inflammation, without any material, certainly no permanent, change in that structure, calls, in certain cases,—likely where the musculus ciliaris is largely developed,—inordinate muscular action into play. Thus the margin of the tarsus becomes inverted; and a continuance of that inversion will soon produce the changes in the palpebral conjunctiva and tarsal cartilage, which, by some observers, have been individually considered as the original morbid change. We therefore agree with Mr. Walton in his pathological views of the affection, and hence have been led to adopt his operation in preference to any hitherto advised."

ENTROPIUM OF THE LOWER EYELIDS IN A FEMALE.

The patient, aged 75, was brought to the hospital on February 14th, to be operated on for cataract; but the complication of entropium rendered this inadmisaible till the latter was removed. The inversion was in its worst stage, the cilia being quite hidden. There was constant lachrymation; the conjunctiva was very vascular; a whitish secretion overspread the corners of the eyes; and the patient complained of constant irritation about the organ, causing perpetual winking. However, she stated that she now suffered less than she had done some years ago. We may here remark that the remission of symptoms as the distortion advances is not accidental, but the usual course of entropium of the lower eyelid; for when the tarsus is but yet slightly turned in, the cilia rest on the eye-ball, (for the most part a little below the cornea); when fully inverted, they are away from it, folded between the edge of the eyelid and the sinus of the conjunctiva. It is this, together with the lesser number of cilia in this lid, their shortness and softness, that renders entropium of it less severe than when its fellow is involved. (A full contrast will be given in the next report.) Indeed, the effects may be so slight, particularly in elderly persons, in whom the cilia are generally few or lost, as scarcely to occasion inconvenience, increased lachrymation being, perhaps, the only subjective symptom.

Besides excising the edge of the orbicularis muscle, to destroy its inverting force, it is requisite also to take away some tarsal skin, the effect of which shall overcome the curve that the tarsal tissues have acquired from having been mal-placed.

Now, in the majority of cases, no more need be taken than covers the portion of the muscle to be removed; about a quarter of an inch in width. Should the edge of the tarsal have become hard and unyielding through inflammatory attack, or the inversion be excessive, more should be taken than when neither exists. In the case in question, the inversion having been very great, a large amount was removed.

The left eye was selected for operation. The eyelid having been made tense by an assistant, Mr. Walton made two incisions with a small scalpel, through skin and muscle, the first near the edge of the lid, from corner to corner, the second about the third of an inch below, and joining the other at each extremity. The outer portion of the flap was raised with forceps, pulled well forwards, and the skin and muscle dissected off by vertical strokes of the scalpel. Three sutures were applied. On the fourth day they were removed. The operation has been eminently successful. The tarsus is now restored to its wonted place, and the irritation of the eye has passed away, leaving the organ ready for the intended operation on the cataract.

Mr. Walton never introduces horn spatulæ under the eyelids, as some surgeons recommend, because he considers them, not only wholly unnecessary, but decidedly objectionable, complicating the operation, and subjecting the eye to a degree of roughness that had better be avoided. Nor does he sketch out on the eyelid with ink, (another recommendation,) the course that the knife should take. Mr. Walton considers it bad practice for an operator to accustom himself to make incisions according to a pattern; since, should his diagram be obscured by blood after the operation is commenced, or should it be requisite to change the plan of proceeding originally intended, he may be seriously baffled. His position might be likened to that of a man in the habit of writing on lines, and suddenly called on to execute without them.

ROYAL BERKSHIRE HOSPITAL.

SURGICAL REPORTS AND OBSERVATIONS.

By F. A. BULLEY, Esq., F.R.C.S.,
Surgeon to the Hospital.

DRY GANGRENE OF THE UPPER EXTREMITY.—HUMID GANGRENE OF THE TOES.—DEATH.

POST-MORTEM INSPECTION.—OBLITERATION OF THE HUMERAL ARTERY BY A DENSE FIBRINOUS PLUG.—OBSTRUCTION TO THE CIRCULATION THROUGH THE ANTERIOR TIBIAL BY A CLOT.—CARTILAGINOUS DEGENERATION, WITH CONTRACTION OF THE ARTERIAL SYSTEM GENERALLY.

CATHERINE H ——, a feeble and delicate-looking woman, residing at Burghfield, near Reading, was admitted into the hospital March 15, 1853, on account of what is usually termed dry gangrene of the right hand, wrist, and forearm, which commencing in the fingers, had rapidly extended to within a short distance of the elbow. The affected parts were of a dark brown colour, hard, dry, and shrivelled, and almost entirely free from any putrid or offensive smell. The joints of the hand, as well as the wrist joint, were immovably fixed in a bent position on the arm. The extent of the disease towards the elbow was distinctly defined, but there was no appearance of any attempt at separation of the destroyed parts, a faint livid line only marking the boundary of the disease. The integument in the neighbourhood of the elbow was of a somewhat dusky colour, and apparently in a favourable condition to become involved in the same disorganising change as had been progressively creeping up the arm. There was no perceptible pulsation in the brachial artery, which felt like a fibrous cord throughout its whole extent. The femoral arteries had the same firm, cord-like feel as the humeral, but not in so great a degree; acute pain was experienced when pressure was applied over any of the arterial trunks for the purpose of examination.

The legs and feet were of a livid red colour, as if in a state of low congestive inflammation, and, just over the situation of the middle of the right tibia, a large vesicle had formed, from which the cuticle had been detached, exposing the true skin in a state of gangrene underneath. The first joint of the great toe, and a portion of the middle one, were in a state of soft humid gangrene, and emitted a most offensive smell on exposure; the same kind of change was commencing in the toes of the left foot. The pulsation of the heart was scarcely perceptible, she breathed quickly and with great effort, and could scarcely articulate; indeed, she appeared to be almost moribund at the period of her admission into the hospital.

Her husband, who accompanied her to the hospital, gave me the following account of the origin and progress of her complaint:—About sixteen months ago, having previously appeared to be in tolerable health, she was seized somewhat suddenly with a paroxysm of cold shivering, attended with convulsive movements of the limbs, and great nervous prostration, which obliged her to take to her bed, where she remained in a state of considerable weakness for two or three months, with a partial loss of power of the lower extremities, a difficulty in uttering her words as plainly as before, and some impairment of vision, by which it would appear that her attack had been caused by cerebral congestion, for which, however, her husband was unable to attribute any particular cause.

After some time she became so far recovered as to be able, although suffering from debility, to get about and attend to her ordinary domestic occupations, until about a month previous to her admission, when, one night while in bed, she requested her husband to look at her hand, which, she said, felt sore and smarting. It had been lying out of bed, and was, as she thought, affected by the cold, which, on that night, was so intense, that the water was frozen in the room in which she was sleeping.

On examination, he was surprised to find, that her hand and wrist had become, to use his own expression, as black as ink. He lost no time in fomenting the affected parts, and applying a poultice, and in the morning it was found that the gangrene had extended nearly half way up the arm, and from this it had crept on by little and little until it had assumed the appearance presented on her admission into the hospital.

The gangrene of the toes had commenced only a fortnight before admission, and was first perceptible through the occurrence of the vesication before mentioned, the inflammation appearing to have been the direct result of her having been taken out of bed, on account of feeling cold, and placed before a hot fire, with her legs exposed to its heat.

The treatment was such as is usually adopted in similar cases. Stimulants were administered internally, and the ordinary means taken to preserve the warmth of the affected extremities, but without avail, for, on the 19th of March, four days from her admission, she expired, having been gradually sinking from the time of her admission.

Post-mortem Inspection Twenty-four Hours after Death.—The body was emaciated, and the muscular tissues generally had a pale and bloodless appearance.

The heart was large, and its muscular structure apparently healthy; the left side hypertrophied, the right was wasted and thinner than natural, and its cavities expanded; the left ventricle contained about 3 oz. of florid arterial blood. All the valves were in a perfectly healthy state. The lungs were small, collapsed, congested, and of a mottled indigo colour outside mixed with grey; inside quite black from congested blood. The cavity of the thorax contained 2¼ quarts of straw coloured serum. The coats of the aorta, and, indeed, of every portion of the arterial system submitted to examination were found to be much denser than natural, of a light yellow colour internally, and extensively occupied by deposits of a cartilaginous nature, which raised the lining membrane of the vessels, and thus narrowed their area; in some places this cartilaginous deposit occupied the whole of the tube of the smaller arteries, so as to make it difficult to press their sides

together, while in others, it was deposited in thick plates, more especially near the origins of the intercostals, where these deposits were particularly observable.

The common iliac arteries at and for some distance from the aortic bifurcation, were converted into rigid cartilaginous tubes, with, in one place only, a small quantity of bony deposit intermixed. The arteries generally supplying the lower extremities were of the same firm texture, and contracted; the anterior tibial on the right side, as it runs over the tarsus, was partially stopped up by a plug of coagulum, which extended as far as the arteria pollicis, which, being likewise obstructed, might account for the gangrene which had affected the great toe on that side.

The arteria innominata appeared to be the only artery in the body which had been unaffected by the disease; but the adjoining subclavian, at about an inch and a-half from its origin, was completely obstructed by a firm fibrinous substance, differing from ordinary blood coagulum in being much denser, decolorated, and strongly adherent to the internal surface of the artery, and evidently poured out under inflammation of the vessel, which, as displayed by the deep red colour of its lining membrane, it evidently had been; and, as that part of the plug which was in immediate contact with the vessel was in every respect similar in colour and consistence to fibrous lymph ordinarily effused from serous surfaces under inflammation, there can be little doubt that such had been the case in the present instance. This plug extended from the point above mentioned for about three inches along the brachial artery, where the vessel again appeared to be comparatively free, although contracted, and continued pervious to within a short distance of the destroyed part, where it was again obstructed, but apparently with only the ordinary coagulum of the blood, detained in its cavity by the obliteration of the vessels in the mortified part.

The kidneys were remarkably small, but apparently healthy in their structure. The abdominal viscera generally were healthy.

The head was not examined.

Remarks.—The case which I have just detailed affords a fair illustration of the morbid condition of the arteries when death has occurred from senile gangrene; but it is chiefly interesting on account of the implication of the upper extremity in that particular form of mortification termed dry gangrene, which, as far as I am able to learn, is not of very frequent occurrence.

It was evident, from the appearances observed on dissection of the humeral artery, that it must have been completely obliterated by the fibrinous plug which occupied its cavity, and that the small quantity of blood which found its way beyond the obstructed point, must have been forced through the collateral arteries; but the impediment occurring above the commencement of the profunda arteries, the circulation through the limb must have been almost completely stopped; and this circumstance, combined with the feeble action of the heart, and the loss of the contractile power of the generality of the arterial tubes, the reason of their cartilaginous degeneration, renders it probable that a sufficient quantity of blood was not carried to the mortified part to furnish the serum necessary to establish and keep up the putrefactive decomposition which distinguishes other forms of gangrene of the living tissues, and which must account for the entire absence of fetor in this case. Sir B. Brodie has well described this effect of arterial obliteration in his excellent lectures on mortification: "If mortification be the result of inflammation or of venous obstruction, there is always an effusion of serum before the parts completely die, in the form of vesication of the skin and œdema of the cellular membrane; and then, when the parts die, being infiltrated with serum, they readily become putrid; but here the supply of blood is cut off; the blood is prevented from entering the limb, so that there can be neither vesication on the surface, nor effusion of serum into the cellular membrane; and the dead parts dry readily from the absence of moisture."

It is seldom that an opportunity is afforded of observing the pathological causes of the two great varieties of senile gangrene in the same subject; but in this case the different conditions were most clearly marked, by the total obliteration of the arterial tube in the upper extremity affected with the dry gangrene; while in the lower limb the circulation had been only partially obstructed, producing the humid or putrefactive variety.

There can be little doubt, that the commencing mortification observed in the lower extremities was the result of inflammation, occasioned by her having been placed too close to the fire; at least the reddened and congested appearance of the legs would lead to this belief; and as it is well known, that in cases of defective or diminished circulation in the living parts, as in frost-bites, etc., gangrene is occasionally produced by the application of heat inducing inflammation, it is not improbable, that in consequence of the contracted state of the arteries, and the general want of power in the vascular system in this case, inflammation might have ensued from the cause just mentioned, and been increased by the incautious use of the poultices and hot fomentations, which formed the principal part of the domestic treatment.

I am at a loss to account for the circumscribed inflammation and obliteration of the brachial artery which occurred in this case; but I have been informed, since the death of the patient, that she had been cruelly treated by her husband, who had frequently beaten and otherwise ill used her. May she not have received a blow on this part, or, in her struggles to escape from his violence, have suffered a strain, which, in consequence of the generally diseased state of the arterial system, might have determined the inflammation of that part of the artery near which the injury had been applied.

SCIENTIFIC LECTURES.

HUNTERIAN LECTURES ON THE ANATOMY AND PHYSIOLOGY OF FISHES AND REPTILES.

By RICHARD OWEN, F.R.S.,
Hunterian Professor to the College.

THIS DAY, MAY 14.—Lecture XXIV.—Impregnation, development, and metamorphoses of Batrachia; changes in the form and structure of the mouth and alimentary canal; of the renal organs; and of the respiratory, vascular, and locomotive organs. Marsupial cells of Pipa. Oviparous and ovovivaparous Ophidia and Lacertia. Oviposition of Crocodilia and Chelonia. Development; fœtal membranes of scaled Reptiles; homologies of the Chelonian Carapace and Plastron determined by the development of the skeleton. Concluding remarks on the organization of the cold-blooded vertebrate animals.

TUESDAY, MAY 17, THURSDAY, MAY 19, SATURDAY, MAY 21.—Lectures on Muscular Action, Dislocation, and the Treatment of Disease. By Professor SKEY.

LIST OF SCIENTIFIC MEETINGS.

This Evening,	May 14.	ROYAL INSTITUTION. — *Subject:*—"On Static Electricity." By Professor FARADAY. Three o'Clock.
——	——	MEDICAL SOCIETY OF LONDON. — *Subject:*—"On the Galvanic Cautery in the Treatment of Uterine Disease." By ROBERT ELLIS, Esq., F.L.S. Eight o'Clock.
Tuesday,	May 17.	ROYAL INSTITUTION. — *Subject:* — "On the Electric Telegraph." By W. CARPMAEL, Esq., C.E. Three o'Clock.
——	——	PATHOLOGICAL SOCIETY OF LONDON. *Meeting of Council.* Seven o'Clock.
Wednesday,	May 18.	GEOLOGICAL SOCIETY. — *Subjects:* — 1. "On Tetragonolepis and other Fossil Fishes." By Sir B. M. G. EGERTON, F.G.S. 2. "On the Woolwich and Reading Series, forming the Middle Division of the Lower London Tertiaries." By J. PRESTWICH, Jun., Esq., F.G.S. Half-past Eight o'Clock.
Thursday,	May 19.	ROYAL INSTITUTION.—*Subject:*—"On Technological Chemistry." By Dr. E. FRANKLAND. Three o'Clock.
——	——	HARVEIAN SOCIETY. Eight o'Clock.
Friday,	May 20.	ROYAL INSTITUTION. — *Subject:* — "Observations, Economical and Sanitary, on the Employment of Chemical Light for Artificial Illumination." By Dr. E. FRANKLAND. Half-past Eight o'Clock.
Saturday,	May 21.	ROYAL INSTITUTION.—*Subject:*—"On Air and Water." By Dr. JOHN TYNDALL. Three o'Clock.
——	——	MEDICAL SOCIETY OF LONDON.—*Subject.*—"On the Physiological Uses of the Ganglionic Nervous System." By Dr. DAVEY. Eight o'Clock.

MIDDLESEX HOSPITAL.—The 108th Anniversary festival of this Institution was held on Wednesday evening, at the Albion Tavern, Aldersgate-street, when about 150 gentlemen sat down to a very good dinner, presided over by the Marquis of Salisbury. From the Report of the past year, it appears that during that period 2305 in-patients have been admitted, and that the number which has been every night in the hospital during the year has exceeded 220. In the cancer wards, it is hoped, during the course of the ensuing year, to increase the accommodation, so as to receive 20 more persons, which will make the hospital capable of receiving altogether 310 patients. The out-patients have amounted to 12,622. The Marquis of Salisbury mentioned that the excess of expenditure over income amounted to 3500*l.* In the course of the evening, it was announced that the subscriptions had amounted to 700*l.*

Medical Times & Gazette.

SATURDAY, MAY 14.

THE COLLEGE OF PHYSICIANS AND ITS LICENTIATES.

The new Charter of the Royal College of Physicians will effect a sweeping change in the condition of Physicians practising throughout this country. At present, as is well known, the jurisdiction of the College is virtually confined to the Metropolis, and to a distance of seven miles around it; beyond that magic limit, the College has scarcely any power or authority whatever. Any one who pleases may practise as a physician, and no one can interfere with him.

This state of things necessarily involves great confusion among the Profession, and is often attended with much injury to the public. The title of Physician, which in itself is honourable, and borne by the most distinguished practitioners of medicine, is naturally coveted by the medical community, and is often assumed by those who have no right to it; and not only do Graduates of all Universities adopt the title of Doctor,—which, in the public mind, although not in reality, is synonymous with Physician,—but every quack and impostor, who cuts corns or cures the ring-worm, surreptitiously appropriates to himself the same title, for the express purpose of inducing the public to confound him with the educated and legitimate practitioner.

This chaotic amalgamation of all shades of character under one honourable title, — this "*rudis indigestaque moles,*" the new Charter of the College aims at reducing to harmony and order. It separates the wheat from the chaff, by distinguishing all those who have received a fair and liberal education, and have had that education tested by examination, from those who have assumed titles upon the payment of money for a piece of parchment, and also from a host of others who have not even gone through that comparatively simple ceremony, but have coolly conferred the degree upon themselves. That the College intends hereafter to limit the title of Doctor to those who have received its licence, is pretty well understood; but it does not yet appear how the assumption of that title by other persons is to be prevented. We suppose, however, that some bye-law will be introduced, making it a punishable offence to take the name of Doctor without the licence of the College.

The proposed alterations will extend very materially the influence of the College, and will enormously augment the number of its members; and we cannot but applaud the extreme liberality with which the College proposes to admit all British Graduates to the membership of the College without examination, and on the payment of a moderate fee.

The only opposition to the College scheme appears to spring from its own ranks; and while the new arrangements are favourably received in most quarters, the Extra-Licentiates of the College appear universally dissatisfied with the position assigned to them under the new *régime*. As usually happens in cases of difference of opinion, there is something to be said on both sides, and we shall endeavour, without any partiality, to place the question fairly before our readers.

The College at present consists of two classes of members, the Licentiates *Intra-urbem*, or those who are entitled to practise in London and its vicinity, and the Licentiates *Extra-urbem*, who are allowed to practise anywhere, except in London and within seven miles of it. The former class pay to the College some 56*l.* for their privilege, the latter pay about 21*l.* This distinction of payments is excessively absurd, and is calculated to convey an imputation of inferiority to those who pay the lesser sum; but we must do the College justice in stating, that these fees have been established in former times, and that there is at present no power to alter them. We must state further, that there is a difference in the examination,—a circumstance not only absurd in principle, but very dangerous in practice; for, surely, if a stringent examination be necessary for those who are to practise in London, it is equally necessary for those whose sphere of action is in the Provinces, or in the Colonies. We are not aware that the diseases of London are so distinct from the diseases prevailing elsewhere, as to require a higher amount of skill in the Metropolitan practitioners; nor can we admit the principle, that our fellow-countrymen in the Provinces ought to be entrusted to less experienced hands than those which are employed in counteracting the maladies of the Capital.

But, in stating that the examinations of the Licentiates, and of the Extra-Licentiates, are essentially different, we know that we are laying ourselves open to contradiction, and that we shall be met by the assertion, that they are precisely the same; we shall, therefore, explain our meaning by reference to facts, which, we are sure, will not be denied by the College itself.

The truth is, that the two examinations, although ostensibly similar, are in reality widely distinct. They are held, it is true, upon the same days, and the same papers are put before all the candidates indiscriminately; but we are stating a fact which is perfectly well known at the College, that a much lower degree of information is considered satisfactory from the candidate for the Extra-licence than that which is expected from the Licentiate *Intra-urbem*. Again, a great part of the examination is conducted orally before Examiners appointed by the College; and while the questions put to the Licentiates are from the lips of the Censors, who are chosen from the most distinguished Physicians, in the vigour of their age and intellect, the *vivâ-voce* examination of the Extra-Licentiates is conducted by a body of examiners called the Elects, who are chosen from the oldest Fellows of the College, and who are, without speaking disrespectfully, somewhat in arrear of the medical science of the present day. From these circumstances it may probably arise, that while we now and then hear of a gentleman being rejected as a Licentiate, such an event is extremely rare among the candidates for the Extra-licence. We do not assert that a candidate for the Extra-licence is invariably successful, but we do not recollect many cases shewing the contrary.

The College appears at present to be somewhat ashamed of its Extra-Licentiates; but we think that this feeling is hardly fair, for the authorities having themselves allowed the present state of things to continue for many years, have no right now to turn round and condemn the laxity which they themselves were the means of encouraging.

On the other hand, however, we consider that the Extra-licentiates have not much ground of complaint, and that the College, having listened to their remonstrances with attention, has met their demands in a conciliatory spirit. Under the new order of things, the Extra-Licentiates will not be *compelled* to join the ranks of the Licentiates, and to pay the additional fees; but will be allowed to practise as they have heretofore done without molestation. Whether any further concession will be granted to the Extra-Licentiates remains

to be seen; but, as the College appears to be actuated at present with a desire to do justice to all parties, we hope that the matter may still be amicably settled.

In reference to the Stamp-duty on diplomas, we are happy to publish, in another part of our Number, a Letter to the Registrar of the College, in which it appears that the Chancellor of the Exchequer is disposed to look favourably upon a remission of taxation in this particular.

MEDICAL CHARITIES (IRELAND).

The Irish Medical Charities Act—passed, as was stated by its supporters in Parliament, with the express object of meliorating the condition of the Irish Dispensary Physicians and Surgeons—has been now somewhat about a year and a-half in active operation. By many of our professional brethren in the Sister country the measure was hailed with unfeigned joy, while the majority felt convinced that any change could not but be for the better. Many were sanguine with hope, a few sceptical; we ourselves at once recognised several imperfections in the provisions of the Bill; and, on more than one occasion, openly stated our views and objections. After the short experience of a year and a-half, the Medical Profession in Ireland feels itself compelled to call a general meeting to discuss the means of redressing many and grievous causes of complaint and dissatisfaction.

When we consider the position and relations of the Profession in Ireland with regard to Poor-law Guardians and Commissioners, it will be seen that this is an extraordinary and bold step, but one which, we think, is in every way justified by the circumstances of the case. Appeals to Poor-law Guardians, themselves parties to the case, were simply futile; while, though the Commissioners *have, by the express terms of the Act*,—and we say this advisedly,—*ample power to redress the greatest of the evils complained of*, in no instance has the authority committed to them been manfully or vigorously used to protect the interests of the practitioners of Ireland; and this, be it remembered, while *a medical man holds an independent seat on the Irish Poor-law Board*. No course, therefore, remained open, but that of holding a General Meeting of the Profession; and such a meeting accordingly has been summoned for the 7th June next.

In former Articles we have dwelt fully on the very extensive sphere of duties which the Irish Dispensary Physician has to perform. These duties may be summed up as follow:—First, attendance at the Dispensary on such days and hours as the Committee of Management may direct; secondly, domiciliary visits, and all requisite medical and surgical attendance on every person duly supplied with a ticket; thirdly, the furnishing certificates, when required, of the state of health of any person under his charge; fourthly, the keeping of a register (of a certain prescribed form,) to be laid before the Committee at each ordinary meeting; fifthly, vaccination of all persons who shall come to him for that purpose; sixthly, the keeping of an alphabetical index to the Medical Relief and Vaccination Registers, and to his Case-book; seventhly, furnishing returns at each Committee-meeting of the number of patients attended during the previous fortnight, and a monthly return of the same to the Medical Inspector of the district; eighthly, the laying of his Report-book before the Committee at each meeting; ninthly, furnishing at the first ordinary monthly meeting of the Committee, a statement of the medicines and medical appliances used during the past month, and of those remaining on hand, with an estimate of the quantities required for the ensuing month; tenthly, furnishing a separate account of all medicines, etc., supplied to Bridewells or Houses of Correction within his district; eleventhly, furnishing all such returns generally appertaining to his office as may be deemed necessary by the Commissioners, Boards of Guardians, or Committees of Management. In addition to this long list of duties the Medical Officer of a Dispensary may be called on to certify in cases of lunacy, and to attend Bridewells or Houses of Correction in his district. But, in estimating the amount and nature of these duties, it is further necessary to bear in mind, that the area of many of the Dispensary districts is very extensive, as much as between 40,000 and 50,000 acres in some instances, with a diameter of fifteen miles and upwards, and a population of 6,000. When we take into account, that neither apothecary nor assistant is allowed, and that the Dispensary doctor has to give advice and surgical assistance, compound and dispense medicines, and, single handed, do all the collateral work entailed by medical practice, it must be allowed that his time is fully employed, and his duties sufficiently onerous. Supposing, however, that the system were worked in a fair and liberal spirit on the part of Committees, Boards, and their agents, and that there was a proportionate remuneration for such labours, the position of the Dispensary doctor, though confessedly one of a very onerous kind, might yet be sufficiently honourable and independent. Let us now, however, inquire what is the actual state of things under this new law, specially introduced to better the condition of the Irish Physicians and Surgeons.

Besides very numerous minor causes of complaint, we have reason to know that the following grave sources of discontent prevail largely throughout the Poor-law Unions of Ireland.

1st. In the primary operations under the Act, dispensary districts were enlarged, in some cases, to twice their original dimensions; while the salaries were reduced in many instances by a third, in others in a still larger proportion.

The Commissioners have ample powers to control all these arrangements; but, instead of interfering to remedy such gross acts of injustice, they have confirmed them.

2ndly. The greater part of the salaries allotted to the Medical Offices have been shamefully inadequate, being in some cases so low as 25*l.* per annum for the performance of the various and harassing duties above detailed. 30*l.*, 40*l.*, and 45*l.*, are the salaries constantly offered by advertisement; and we think we are justified in saying, that the average salary does not reach 50*l.* per annum,—a remuneration which is entirely disproportioned to the amount of labour required.

The following extract from the Act is important in connexion with the foregoing statement:—

"The said Commissioners may, and they are hereby empowered, when they may see occasion, from time to time, to regulate the amount of salaries or allowances payable to such officers respectively."

In this matter, therefore, the Commissioners might have fully and entirely redressed the impositions practised on the Profession by the niggardly and oppressive spirit of Guardians and Committees.

3rdly. There is most abundant evidence to prove that, in the actual working of the measure, the professional men of Ireland have been subjected to a most gross, unjust, and wholesale system of imposition, whereby they have been deprived of a substantial source of emolument, and the provisions of this Medical Charities Law have been openly and shamefully abused. Those alone who are conversant with the internal economy of an Irish Union can fully judge of

the nature and extent of this scandalous imposition. To understand how it is practised, it is necessary to state, that the power to recommend for dispensary relief is in the hands of the members of the Committee of Management, the Relieving Officer, and Warden. It is utterly impossible to exaggerate the indiscriminate carelessness with which tickets have been issued by these wholly irresponsible parties. In almost every Union, without exception, the Medical Officer receives daily tickets of recommendation for advice and medicine, and even "immediate" domiciliary visits, to gentlemen and noblemen's stewards, gardeners, and upper servants, national schoolmasters and schoolmistresses, with not only good salaries, but houses and gardens, farmers with horses, cows, and twenty acres of land and upwards. In fact, below the grade of "gentleman," there is no one too comfortable or too well off to be denied a "ticket" by an easy, careless, or fraudulent Committee-man or relieving officer. And thus it is that, while his salary is miserably small, his practice among the "gentry" little or nothing, the unfortunate doctor is deprived of a large and substantial source of emolument from a class well able to pay for advice when they require it. We shall be told, that he has redress, that he can bring the case before the Committee. Very true; but we happen to know districts where the Committee does not meet regularly once in three months; and, even if it did, the probability is, the case would have been attended and cured in the interim; and, though you may strike this particular delinquent's name off, yet the Medical man has no redress for his lost time, and no guarantee that the same thing will not happen in fifty similar cases. No effort should be spared to obtain full redress for this injustice amounting to fraud.

4thly. The Medical officer has not only to give advice and surgical assistance, but he has also to compound and dispense the necessary medicines for his Dispensary patients, and those whom he visits at their own homes. This is strictly the duty of an apothecary, and to be at all efficiently done, must be done by some other officer than by him, who, fatigued with his morning's work in examining and prescribing for some sixty or seventy patients, has still before him a numerous list of gratuitous domiciliary visits, to say nothing of his private patients, if, amid such harassing attendance, he happen to possess any. For ourselves, we certainly would rather not be obliged to take the pills, potions, or decoctions made by such a hand. We are confident, that if properly inquired into, the compounding and dispensing under the present system would be found in a very sorry condition. What avails it, to examine and diagnose a case with care and accuracy, if your medicine be carelessly and ineffectually compounded? This is clearly a separate and distinct duty, and, as such, demands separate and distinct officers to perform it. *The Act empowers the Commissioners to appoint such officers:* "the said Commissioners shall declare, in such order, the number and qualification of the officers to be appointed for the service of such Dispensary district." What beggarly economy then prevents the appointment of district apothecaries?

In the foregoing remarks we have dwelt only on the more salient points of this case. Many and grave matters still remain for consideration, did our limits allow of it. As we have shown, the Commissioners possess ample powers to redress the chief grievances complained of. To them, therefore, we would recommend, that, in the first instance, the strong and bold protest of the Profession should be tendered. If this step be not taken in the first instance, the neglect of it will be made the means of harassing the petitioners with official and technical difficulties and delays. If redress be refused in this quarter, then we say, carry your case to the Government directly, and with a unanimous voice demand a Parliamentary inquiry. We feel confident, that a Committee would not be refused, if proper measures be taken to bring all the facts which can be thoroughly substantiated fully before the Houses of Parliament.

THE PUBLIC HEALTH OF ENGLAND.

No. I.

To guarantee the security of persons and property, is the first object of all civilized communities; it is, therefore, the first duty of all constitutional Governments or Committees for the public good.

"Life and land" is the early cry of all true Conservatism; land being, in primitive conditions of society, the sole permanent property, and life being placed first, because instinctively recognised as the most valuable property of all. As Societies have advanced, offences against the life have ever taken precedence in guilt of those against the property of individuals; for many reasons, the chief of which is, that crimes against the property of individuals may—while those against the life of individuals cannot—be redressed. Even in the old hanging times, murder was always worse than burglary; and now, at last, in England, murder holds a monopoly of the gallows, emphatically proving that, with us, crimes against the life are the worst of all.

Murder by direct violence—by a blow of a club or mace, or a stab with a sword, spear, or dagger—and, by-and-by, by poison, which was soon seen to be as malicious as the most brutal of blows or stabs—was, of course, at first, the subject of legislation; the penalties for the violation of that law which came direct from God—"Thou shalt not kill"—being, for obvious reasons, confined to the known and common modes of killing.

As civilization has advanced—that is, as men have enjoyed the blessings of peace, cultivation of mind, leisure to speculate, and time to embody the results of speculation in the practice of society—the scope of this edict has been enlarged; clearer views of what is, and what is not, murder have been arrived at; and verdicts of coroners' juries have attempted to embody these views in such verdicts as "Manslaughter," with all its various modifying circumstances; and "Homicide," justifiable and culpable. What might be the law in the monkish "charitable" days, or even during the reign of the old Poor-law, founded on the 42nd of Queen Elizabeth, we cannot say; but since the new Poor-law came into operation, verdicts of "Death by Neglect" have sometimes expressed the disgust of society at the carelessness of the officials in cases of starvation, and have kept up a wholesome vigilance, acting almost like humanity, in the hearts of relieving officers.

More recently still, since the Cholera times, and mainly caused by the efforts of sanitary reformers, such novel verdicts as "Death by Malaria," "Death by Typhus, caused by Bad Drainage," have appeared in the London papers; and we have no doubt whatever, that, as the knowledge of the causes of epidemics, which all well-informed medical men possess, goes on permeating society, it will come at length to mingle even with "Crowner's 'Quest-law" so thoroughly, that we shall have verdicts of "Death from Cesspool fever," and "Death by Typhus, from wilful and shameful neglect of the Landlord," appearing in the Journals. Along with the responsibility of the landlord to prevent typhus, will soon arise his liability to support the widow and

orphans of the husband and father killed by his bad drainage; and there is no reformer like your common law court, when profit is the landlord's object.

Without committing ourselves to all the details of the Public Health Act of 1848, we propose to offer a few remarks from time to time on Sanitary Reform, believing it to be the foundation of all true social progress, and that we have arrived at an important epoch in its history.

In the present crisis of the question, it gives us great pleasure to know that the benevolent Lord Shaftesbury is a working member of the Board of Health; and we cannot but feel a strong sense of comfort and security in the fact, that Lord Palmerston is Home Secretary.

The subject has arrived at that stage in which wavering or undecided action will be most injurious; and His Lordship, we know, is not a man for half-measures. On receiving Deputations from various parts of the Metropolis, on Monday, the 14th of February, on the topic of sewers and police, Lord Palmerston went a little out of his way to say to the M.P.s and influential gentlemen who came there to protest against centralisation, (that is, plan, system, with a directing power to regulate it,) and in favour of Saxon self-government, (that is, the selfish government of isolated townships, as if the very existence of society does not demand some centralisation) :— "I shall be most earnest in my endeavours to get rid of the nuisance arising from the state of the refuse of the living, and the state of the remains of the dead." Now, the "endeavours" of the poor well-drilled Metropolitan Members of Parliament, and somewhat vociferous patriots, who formed the Deputation, had reference to taxes, and the doing as they liked with their own, and not to any "refuse" or "remains" which might be noxious to society. The Home Secretary, indeed, is about the worst governor in the world for spoilt children rebelling against sound discipline, to go to with complaints; and, in reply to theirs, he treated them with one or two of those pithy, epigrammatic sentences, by means of which he is in the habit of hitting, as if accidentally, a subject right on the mark, and doubling his opponent hopelessly up. "The refuse of the living and the remains of the dead;" why, that is the whole sanitary subject in a sentence! On the "local self-government" which the parishes, by their vociferous patriots, demand, His Lordship significantly "expresses no opinion;" but, with respect to the refuse of the living, he has a very strong one, that "one grand and comprehensive measure, one general system," must be adopted,—something very different from the local self-government, that is, the obstinate resistance to co-operation which the well-drilled M.P.s and city orators went to seek.

Were this "grand, comprehensive measure," — this "*general* system"—but established, or rather, were it but enforced,—for, in the Health Act, it is established,—how fervently would sanitary reformers, and all the friends of all the social progress which is based on national health and cleanliness, cry, "Heaven bless the Home Secretary!" And His Lordship is just the man to grapple with and put down the selfish and now powerful organisation which is about to assail the Health Act, or, rather, health reform, under pretence of assailing the Act of 1848. The hungry Improvement-Act lawyers and effete Engineers of the cesspool and old cesspool sewerage(a)—the Jew and Gentile landlords of bad tenemented property—the Saxon self-governors of "heavily-burdened townships" have gathered to a head, and are ripe for insurrection. Lord Palmerston is just the man to scatter such a selfish, unreasoning crew, to gather up under his leadership the various friends of progress in its various forms, and to concentrate their efforts on this simple, clear, broad, unsectarian, universal progress, which lies in health,—which helps all other progress, physical, mental, moral, and religious, and is opposed to no good man's crotchet or scheme. The boldness and decision of his character, which so long made England respected in the absolute Courts of the Continent, and which so often, during his Foreign Secretaryship, called forth a burst of admiration and approval from the free spirits of this country, will be needed now, in this homely but momentous conflict with the enemies of health reform, for the opposition of tyrannous avarice and obstinate ignorance to cleanliness at home, is just what absolutism is abroad. It is old Toryism—immobilism—under the old household forms of filth and foul air; and the abhorrence of the "un-English" demand of the rights of cleanliness, comfort, and health for the working man of this country, is just that which Austria and the Czar have of his possessing a clear, free, independent mind.

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(a) Have not Parliamentary engineers and barristers of no mean note offered to take any cases of opposition to Public Health Act Bills, promoted by the Board, *free of charge?*—an expiring effort to sustain a perishing monopoly of expensive law and cesspool sewerage!

THE COLLEGE OF PHYSICIANS.

The following letter has been received by Dr. Hawkins, the Registrar of the Royal College of Physicians, from the Secretary of the Chancellor of the Exchequer.

Downing-street, May 5, 1853.

Sir,—The extreme pressure of public business which has lately engrossed the attention and entire time of all those connected with this department, has occasioned the delay which has occurred in the acknowledgment of the representation which, on behalf of the Royal College of Physicians, you submitted to the notice of the Chancellor of the Exchequer.

I am directed by him to assure you, that he will not fail to investigate and give his careful attention to the subject of the Stamp-duties now imposed upon the licences and diplomas of the College of Physicians.

I have the honour to be, &c.

Francis Lawley.

PROVINCIAL MEDICAL AND SURGICAL ASSOCIATION.

MR. SYME AND THE CENTRAL COUNCIL.

At a meeting of the Central Council, held at Worcester, on the 30th April, was read the following letter from Mr. Syme, of Edinburgh :—

Edinburgh, April 22, 1853.

"Sir,—I beg to direct your attention to the 158th page of the 19th volume of the Transactions of the Association just published. As it is impossible for me to remain connected with a body which could tolerate such a statement, or sanction its publication, I must desire my name to be withdrawn from the list of Associates.

"To the President." "I am, &c. "James Syme.

It was then resolved,—

"That this Council receive with regret the resignation of Mr. Syme; but, at the same time, they beg to impress upon him, that the passage complained of in the address was read at the anniversary meeting by Mr. Hester; and that, therefore, the Council have had no choice but to carry out the instructions of their superior body, viz., the members assembled in general meeting."

James P. Sheppard,

April 30th, 1853. Secretary to the Association.

ANNUAL MEETING OF THE PROVINCIAL MEDICAL AND SURGICAL ASSOCIATION.

The members and friends of the Provincial Medical and Surgical Association are informed, that the Twenty-first Anniversary Meeting of the Association will be held at Swansea, on Wednesday, the 10th, and Thursday, the 11th of August next.

Full particulars will be forwarded to the Editor for publication in an early number of the Journal.

JAMES P. SHEPPARD,
May 7, 1853. Secretary to the Association.

METROPOLITAN COUNTIES BRANCH OF THE MEDICAL AND SURGICAL ASSOCIATION.

A meeting of this Branch was held on Tuesday, the 10th instant, at 4 p.m., at 37, Great Queen-street, Lincoln's-inn-fields. It was summoned by the Council for the consideration of general business.

MEDICAL REFORM.

Dr. Semple thought it very necessary that members of the Association should take part in matters of importance connected with the Profession. At the present moment, two measures were under consideration by the Ministry, both of which affected very materially the interests of all practitioners of medicine and surgery. The first was, the proposed new Charter of the Royal College of Physicians; and the second was, the Medical Reform Bill proposed by the Association. With respect to the first measure, it was one of internal reform; and, as such, the Association had probably little concern in its enactments; but it was nevertheless quite evident, that, if it passed into a law, it would affect, not only the members of the College of Physicians, but, in connexion with any coming measure of general medical reform, likewise all the practitioners of medicine throughout England and Wales. It was, therefore, necessary that a Committee should be appointed to examine how far the new Charter of the College would influence the great mass of the Profession. But the Association is more particularly interested in the Bill of Medical Reform brought forward by itself. Admitting, as he (Dr. Semple) did the necessity for some measure of Medical Reform at the present crisis, he thought that there might be some parts of the Bill liable to objection; and, at any rate, that its provisions should be open to discussion. A draft bill was drawn up last year; and it was generally understood that some modifications had lately been introduced; but the nature of these modifications has not yet transpired. It was also necessary that public meetings should be held, and that the views of the members of the Association, and of the Profession generally, should be clearly understood. It was quite possible that some such meetings had taken place; but he (Dr. Semple) had not heard of them, with the exception of one of the South-Western Branch, an account of which was printed in the *Association Journal* and *Medical Times and Gazette* of last week. That Branch had expressed some strong objections to the Bill. Believing that something must be done, but that at the same time we should guard against hasty and rash legislation, he thought that the appointment of a Committee, to watch the progress of the Reform question in general, would be the means of putting the Association in possession of every important step which might be taken by the Government, or by the Houses of Parliament; and also of inviting an expression of opinion, both individually and collectively, on the part of the members of the Association, as well as of other members of the Medical Profession. He moved the following Resolution: "That a Committee be appointed to watch the progress of the Medical Reform question in the Houses of Parliament; to communicate with the Reform Committee of the Parent Association, and with other Medical Reform Committees; and to report its proceedings to this Branch."

Dr. George Webster seconded the motion. He thought that the more the Bill was discussed the better. He concurred in the suggestion of communicating with other Committees; and he thought, that the Committee of the South-Western Branch ought to be invited to meet the Committee of this Branch, or to correspond with it. From some experience in the subject of Medical Reform, he was convinced that, without full, cordial, and frank discussion, the opinions of the Medical Profession could never be brought into sufficient harmony to enable any Bill to meet with general support. He, therefore, speaking as a member of the Medical Reform Committee of the Parent Association, would say, let every part of the Bill be discussed here and throughout the Kingdom; and, if it contain any parts which are objectionable, let them by all means be altered. He would, however, remind the meeting, that the subject is involved in immense difficulties. It is not as if they were legislating for the Profession *de novo*; they were obliged to purchase the support of powerful interests by making concessions; and he felt assured, that any one who had had any experience of the difficult negociations which a settlement of this question involved, would pause before they blamed the Committee for in one or two points sanctioning what was not intrinsically best.

Mr. Hastings, having been called upon by the Chairman, then rose, and gave a history of the present position of the Reform question, and of what had been done since the Oxford meeting. He would reply to two statements made by Dr. Semple. In the first place, Dr. Semple had stated, that meetings of the branches had not been held. Now, every one of the branches had met, and discussed the Bill, and all except one had reported in its favour. The subject had also been brought forward at the last General Meeting of the Association, at Oxford. So that, so far from the Bill not having been discussed, it had been extensively discussed. Secondly, Dr. Semple had said, that very little had been done by the Committee since the draft bill was published, in November, 1852. This was a mistake. The committee had exerted themselves in various ways—by correspondence with various bodies, and by deputations to the Scottish Colleges; in fact, they had done everything which they could with the view of rendering the Bill acceptable to the corporate bodies, and to the mass of the Profession. He did not, therefore, think that the Committee could be reproached with having being idle. With regard to the present state of the Bill, it had been found impossible for the Committee so to alter it as to meet the wants of all concerned within any reasonable time; and, under these circumstances, it had been thought best to give it into the hands of Lord Palmerston in its existing condition, as it was published in the *Provincial Medical and Surgical Journal* for the 10th of November, reporting to him such alterations as might be from time to time suggested by the Colleges and the Profession. Lord Palmerston had expressed himself impressed with the importance of the subject; but he had since stated to Mr. Hastings that he had not time, being much occupied with Irish and other important Parliamentary business, to give proper attention to it. He (Lord Palmerston) was willing that a Deputation should wait upon Lord Aberdeen, and ask him to introduce the Bill into the House of Lords, which was less occupied than the House of Commons. If introduced there, the Bill would be discussed, and sent down to the Commons in a state which would probably give them very little trouble. He (Mr. Hastings) had written to Lord Aberdeen, requesting him to fix a day for receiving a Deputation; and His Lordship had fixed Thursday, May 12, at two p.m., for that purpose. He would advise Petitions of the form published at p. 390 of the Journal for last week as an effectual means of bringing the subject of medical reform before the notice of the House of Lords. It would show to them that the subject was attracting the notice of the Profession in general. He agreed with the remarks of Dr. Webster, that the Association was in a different position from having to legislate *de novo*. Varying interests, and corporate bodies tenacious of their rights, had to be legislated for. It was evident that the Committee could not have everything as they liked; and the question was, whether the Profession would accept a compromise. A Bill opposed by all the corporate bodies could certainly not pass. But the present Bill was supported by the College of Physicians; and this Mr. Hastings stated, notwithstanding assertions made to the contrary, on the faith of a letter which he had received from Dr. F. Hawkins, the Registrar of the College. The College of Surgeons had not acted so cordially; it evidently did not wish for any reform measure; but he did not think that Parliament could throw over a Bill which, though it did not meet all the views of the Council of the College of Surgeons, still proposed nothing injurious to it, and was acceptable to the mass of the Profession. It had been stated, that the Bill does provide for the General Practitioner. It did all that can be fairly asked for. When the Bill became law, every one, even though only possessing the licence of the Society of Apothecaries, would be entitled to be registered as a surgeon. Again, in future, every person admitted under the new Act would be a member either of the College of Surgeons or the College of Physicians; and this would do away with any third grade—which, he believed, had been desired by the Association. The Bill abolished a third grade, merely retaining the distinction between physicians and surgeons. With regard to education, also, all members of the Profession will have to enter through the same portal. Here, again, the system of equality is recognised; and the status of the General Practitioner is raised. In the formation of the Council, he allowed that there were points to which objections might be raised, and in which improvements might be introduced. It had been objected, that the Council was to be formed of the Regius Professors of Medicine in the Universities of Oxford and Cambridge, a member designated by the Senate of the University of London, the Presidents of the Royal Colleges of Surgeons and of Physicians in England, five physicians to be chosen by the College of Physicians, five surgeons to be chosen by the College of Surgeons, and of six other members, who may or may not be General Practitioners. It would not be possible to place more members of this class on the Council; and he thought that the plan which

had been proposed, of electing members of the Council by the whole Profession, could not be adopted. It might work well for a year or two, but would ultimately lead to cliquism and other evil consequences. The Committee thought that, as a compromise between the two systems, the Secretary of State should nominate the Council. A great difficulty in all attempts at medical legislation had hitherto been the presence of clashing interests. Until the present occasion, he believed that England and Scotland had differed on the subject of Medical Reform. The Scottish bodies now propose to have, instead of a separate Council for each division of the kingdom, a single Council for all, and that their Examiners should be chosen from the Colleges of Physicians and of Surgeons in Edinburgh, and the Faculty of Physicians and Surgeons in Glasgow; and that practitioners should be registered on passing the examination of the Board thus appointed. The Colleges of Physicians and of Surgeons in Edinburgh had deputed their Presidents to attend the Deputation which waited upon Lord Palmerston, and to express their concurrence in the Bill. The Faculty of Physicians and Surgeons in Glasgow at first opposed the Bill; but that opposition had now ceased. In Ireland there had been no objections raised,—he did not therefore expect much opposition from that quarter.

In reply to an observation from Mr. Bowling,

Mr. Hastings said that the College of Surgeons had objected to the Measure because the examiners to be appointed by the Bill would examine in surgery. They wished that all candidates should present themselves both before the College of Physicians and the College of Surgeons. He had, however, heard that the College of Surgeoos would not object to a Board appointed jointly by the two Colleges.

Mr. Bowling said that Mr. Hastings had not referred to the Society of Apothecaries; and he was anxious to know if the Committee had had any communications with them. It was of no small importance to know the sentiments of so influential a body.

Mr. Hastings said that he had sent different communications to the Society of Apothecaries; but he had not received from them in reply any expression of opinion as to the Bill.

Dr. Halley said, that the Society of Apothecaries had always expressed a willingness to give up their rights whenever they should be called upon to do so.

Mr. Bowling said: Yes; but only upon certain conditions; and they would never do so voluntarily, unless some machinery were provided, that would equally, or to a greater extent, maintain the high standard of education of the General Practitioners. He wished to ask Mr. Hastings, whether the six Practitioners on the Council were to be General Practitioners?

Mr. Hastings said, that the term employed was "Medical Practitioners."

Dr. Webster said, this was a point upon which there had been a good deal of discussion; and he thought it had been understood that the six Practitioners were to be General Practitioners. He would like to see a Council elected by the Profession at large; but, if that could not be obtained, he would much prefer that the Council was nominated by the Government, than by the Medical Corporations.

Mr. Bowling said, that there were various points of difficulty; and one of them was the registration as Surgeons of persons who were only Licentiates of the Apothecaries' Society.

Dr. O'Connor was convinced that the examination at Apothecaries' Hall was more conducive to public safety than that at] the Royal College of Surgeons. The examination of the College was no test of fitness for the discharge of any duty connected with the Profession. A slight examination in surgery and anatomy was no protection to the public. The object of the College of Surgeons appeared to be to form two distinct classes; the one a superior grade, the consulting surgeons; the other an inferior grade, men to make and find work for the superior. Mr. South had told a candidate, that in a case of hernia it would be his duty, not to operate himself, but to send for an hospital surgeon.

Mr. Richardson said, that if the branches had discussed the Medical Reform question, he had seen no reports of the proceedings. No such reports had appeared in the *Association Journal*, or in the other medical periodicals.

Dr. Webster: You will find reports of many discussions in the Journal of last year.

Mr. Richardson said that might be quite true, but since these discussions had taken place a new Bill had been brought forward; and, excepting the discussion reported in the Journal of last week of the proceedings at the meeting of the South-Western Branch, he had not seen a report of any Branch meeting at which the Bill now in the hands of Lord Palmerston had been considered. He much feared that the promoters of this Bill were too impatiently bent on pushing it through Parliament; for he knew that in many parts of the country the principles of the Bill were not comprehended; nor was there an adequate sense entertained of the numerous changes which would be effected on medical practice, should it become law. He thought that the best thing that could happen to the Profession would be a refusal on the part of Lord Aberdeen to proceed with the measure during the present session of Parliament. So far as he understood the Bill, its tendency would not be to elevate, but to degrade the General Practitioners.

Dr. Cormack wished to recall the meeting to the nature of the proposition which was before it, and which probably they were all disposed to sanction. The topics upon which Mr. Richardson had entered would, as a matter of course, receive ample consideration from any Committee which might be this day appointed; and might afterwards be fully discussed at a general meeting, when a report of the Committee was given in. He therefore thought, that, unless some objections could be urged to Dr. Semple's motion, much valuable time might be saved by passing it at once. He could not at all agree with what had fallen from his friend Mr. Richardson, as to the question not having been fully discussed by the Association. Since ever he (Dr. Cormack) had been a member, it was one of the topics which had most frequently met his eye in the Journal of the Association. It had been debated in all the Branches, and at various annual meetings. At the Oxford meeting, the Bill had been very minutely considered; and the result of an animated discussion had been the unanimous conviction, that it was the duty of all classes of Medical Reformers to merge their individual differences. It was upon this basis that the present Medical Reform Committee was selected: it was a Committee which fairly represented all—even extreme—opinions; and for that very renson the results of its deliberations were peculiarly entitled to respect. He fully admitted, with previous speakers, that it would only be just and right that the Profession should elect its own Council; but his conviction was, that any attempt, in the first instance, to insist upon this legitimate claim, would produce no other practical effect than complete obstruction to medical reform. The Colleges would not concede this point; and the Colleges were too strong to allow any measure to pass in opposition to their combined exertions. The Colleges were, however, every day becoming more liberal. The question then was, not what was theoretically best as regarded the composition of the proposed Council, but whether a compromise might not be accepted. He thought that the nomination of the Council by the Government was a very fair compromise; and that it was a method which even had some advantages. However, as he had already said, the question before the meeting was the appointment of a Committee; and he would therefore suggest that the further discussion of the merits of the Bill should be delayed till the Report of that Committee was before them. In the meantime, it should be well understood that the General Reform Committee had been engaged in arrangements of the greatest difficulty and delicacy, and that many of them were sacrificing their own peculiar interests to secure the co-operation of the Profession, in behalf of the best measure which could in the circumstances be obtained. The Committee represented all opinions; and upon that ground it commanded confidence. The exertions of its members deserved the gratitude of the Profession.

Dr. Semple's motion was put and carried.

Dr. Semple then moved, that the following gentlemen be appointed members of the Committee, with power to increase their number to twenty-five:—

The President; the Secretary; Henry Ancell, Esq., 3, Norfolk-crescent; J. Risdon Bennett, M.D., 15, Finsbury-square; T. Snow Beck, M.D., Langham-place; John Bowling, Esq., Hammersmith; Charles T. Carter, Esq., Hadley; T. Charles, Esq., Holborn; William Collyns, Esq., Harlow, Essex; J. R. Cormack, M.D., Putney; R. P. Cotton, M.D., Clarges-street, Piccadilly; John Davies, M.D., Hertford; Patrick Fraser, M.D., Guildford-street; Alexander Henry, M.D., Alfred-street, Bedford-square; C. F. J. Lord, Esq., Hampstead; William O'Connor, M.D., George-street, Portman-square; B. W. Richardson, Esq., Mortlake; C. Shillito, Esq., Putney; F. Sibson, M.D., Brook-street, Hanover-square.

Dr. Fraser seconded the motion; and in doing so proposed that Dr. Semple's name should be added to the list; and that he should be Chairman of the Committee.

COMPULSORY VACCINATION BILL.

Dr. Cormack said, that the lateness of the hour would oblige him to omit much of what he had intended to state on the subject of the Vaccination Bill; but he thought that he could, in a brief space of time, say more than enough to justify the meeting in adopting the Resolutions which he was about to propose. It was known to all present, that Lord Lyttelton had introduced a

Compulsory Vaccination Bill into the House of Lords; and that it had actually passed the House of Lords; and was now before the House of Commons. He was willing to give the fullest possible credit to the philanthropy and patriotism of Lord Lyttelton, Lord Shaftesbury, and Lord Ellenborough, the noblemen who had most identified themselves with the measure; but patriotism and philanthropy were practically useless, unless they were supported by knowledge; and, unfortunately, as regarded the Vaccination Bill, this was not the case. The promoters of the Bill had become strongly impressed with the necessity of legislating for the repression of small-pox and the extension of vaccination; and they had startled the Medical Profession, from one end of the kingdom to another, by launching the present sweeping measure, without affording to the Profession any opportunity of expressing its opinion upon the complicated questions, political and medical, which were inseparably connected with it. If the Medical Profession had been consulted, it would most certainly have declared, that whether the principle of compulsion be politically sound or unsound, practicable or impracticable, there was another principle of far greater moment—an essential principle—which had been entirely overlooked. There was no provision in the Bill to insure efficient vaccination; and that was the first point to which legislation undoubtedly ought to be directed. A scheme must be devised for the abundant supply of good lymph, and for the conscientious and intelligent performance of the duty of vaccination. If time permitted, much more might be said upon this point; but he would just remark, that efficient vaccination could never be provided for except by obtaining the cordial support of the Profession; whereas the effect of Lord Lyttelton's coercive measure was to irritate the Profession. It was, he (Dr. Cormack) thought, peculiarly the duty of the Profession to come forward at this juncture to stop the progress of this objectionable Bill. It was, above all, incumbent on members of the Medical and Surgical Association to take every means in their power to prevent discredit being cast on the discovery of the immortal Jenner, and dishonour and injustice being done to the Medical Profession. The Report of the Vaccination Committee of the Association was, up to this hour, the most valuable document which had yet appeared upon the vaccination question; and the body under whose auspices such a paper had been published, was well entitled to tell its sentiments to the Government, the Parliament, and the public. Dr. Cormack concluded by urging his Resolutions upon the meeting, upon the grounds that the Profession had not been consulted, and that elements for enlightened legislation did not yet exist.

Dr. Semple seconded the motion; which was unanimously carried.

It was then proposed and carried unanimously, that the Deputation to Lord Palmerston should consist of Dr. Cormack, Dr. Fraser, and Dr. Semple.

After some other business, the meeting separated.

PROGRESS OF MEDICAL SCIENCE.

SELECTIONS FROM FOREIGN JOURNALS.

CASE OF TRAUMATIC TETANUS CURED BY THE INHALATION OF CHLOROFORM.

By Dr. TH. V. DUSCH, of Mannheim.

A patient, aged 26, ran a nail into the great toe of the left foot, on April 17th. On the 30th, he experienced difficulty in opening the mouth. On May 2nd, the masseter and other masticatory muscles were contracted, and the mouth was closed. On the 5th, the symptoms were more severe; and, on the 6th, there were tetanic spasms, returning every five minutes, combined with opisthotonos. Morphine, bleeding, tobacco enemata, cupping, etc., were tried without avail. Pulse 112; skin warm. Chloroform inhalations were then directed. The tetanic symptoms disappeared during the narcotism, and the patient obtained some rest. Upon the return of the spasms, the chloroform inhalations were repeated, during which the pulse sank from 110 to 60. The author now endeavoured to keep the patient in a state of constant excitement, and administered, between this date and the 20th of May, 6½ ounces of chloroform.

21st.—The inhalations were discontinued; cold was applied to the shaven head, and a quarter of a grain of acetate of morphia was given every two hours. On the 4th of June the patient was well.

Dr. Bargigly, of Lesbos, relates the case of a countryman, in whom tetanic symptoms came on after the ex-articulation of the third finger. The patient was cured by the same treatment.

A similar case is related in Langenbeck's Clinic.

The death of the patient in tetanus is caused by the cramps extending to the respiratory muscles and to the heart. It rarely occurs from loss of power in the brain or spinal cord, or from exhaustion. The course is usually acute, the tetanic symptoms ensuing in the following order:—trismus, cramp in the muscles of back and neck, the extremities often remaining free. Most patients die before the twelfth day. The prognosis is the more favourable the longer the disease lasts. The advantage of narcotising remedies consists in this, that the tetanic cramps become suppressed or rendered milder, and thus the respiratory act and the contractions of the heart proceed unimpaired. Chloroform, from being taken into the blood direct from the lungs, is preferable to all other narcotising remedies, which must be absorbed from the stomach. The effects of the chloroform inhalations must be continuous, the patient remaining days, and even weeks, more or less, under its influence, until a point of saturation is attained, characterised by the rapid production of the extreme narcotising effects, the patient during the intervals being in a state of obstinate excitement; head hot, face red, eyes glistening, frequent epistaxis, etc. Atmospheric air was mixed with the chloroform in Dr. Dusch's case.—*H. und Pfs. Ztschr., N. F.* III. 1852.

COLLODIUM IN CASES OF INFLAMMATION OF THE EPIDIDYMIS.

By Dr. LANGE, of Königsberg.

Collodium, which Dr. Piachaud (*Arch. Gen.*, September, 1852) recommends as extremely useful in arresting incipient erysipelas, by causing contraction of the vessels of the skin when applied externally, has been employed at Königsberg by Dr. Lange, in cases of inflammation and swelling of the epididymis. Although he is in favour of cauterisation of the scrotum with nitrate of silver, as a remedy in this affection, yet the cure is generally tedious, and the caustic requires frequent repetition. It is from these reasons that he was induced to try pencilling the scrotum with collodium; and, in five cases, he witnessed such favourable results, that he was induced to continue the practice. In three cases, a single application sufficed, and recovery took place in three, four, and six days. In the fourth, the patient, aged 41, addicted to onanism, suffered from swelling of the left testicle for six weeks, with slight œdema of the scrotum. He was cured in seven days, after two applications. In the fifth case, the patient had suffered from orchitis for six months; he was cured in eleven days, after three applications. Collodium was also found useful in erysipelas of the lower extremities, but not when applied to chancres or sore nipples.—*Deutsche Klinik*, 11. 1853.

CASE OF LYKANTHROPIA.—(EL HOMBRE LOBO.)—WOLF-MADNESS.

A native of Galicia, of irreproachable character, a man whose religious zeal was quoted as a model, whose conduct and honourable principles were undoubted; one who, in his transactions, had never exhibited depraved instincts or inclinations, and who had consequently acquired the confidence of the whole neighbourhood, persuaded several persons to follow him to another town, where he promised them occupation and good reception. As soon as he had reached a solitary place, suited to his plans, he became a raging beast, tore his victims with tooth and nail, and left them lying there to die. He returned home, wrote letters to others, picturing the advantages which he could promise them, obtained their confidence, and, leading them away as he had done the others, destroyed them after a similar fashion. This practice he continued for some time, until it attracted the suspicion of the authorities, who seized him, and had him conducted to the seat of his atrocities. Here, in the presence of the unburied remains of his victims, he acknowledged his crime without excitement. A physician, who happened to be present, found that, at this moment, there was not the least acceleration of the pulse. The only reason "the monster gave was, that, when he reached the mountain, he felt himself changed into a wolf, and, having the same instincts, gave way to the irresistible impulse of his organisation."—*Gac. de Madrid*, 282. 1852.

UPON THE FORM AND THE CHANGE IN POSITION OF THE LARGE INTESTINE IN DISEASES OF THE MIND AND MORAL FEELINGS.

By Dr. EULENBERG.

Change in the normal position of the transverse colon has been remarked by the older observers long ago, in the examination of the bodies of the insane. Esquirol found this portion of the intestine sometimes oblique; sometimes vertical, so that its left extremity lay behind the pubic bones; and sometimes curved, the convex part of the arch sinking into the pelvic cavity.

This change of position, which Esquirol endeavoured to connect with melancholia, is associated with either widening or narrowing of the tube; and Bergman has given some interesting observations on this point.

The mental disease almost always connected with this affection, is an hypochondriacal depression of the feelings, which is characterised by deep anxiety and trouble. Such melancholy sometimes ensues, that the patient commits suicide. Up to the present time, a greater number of cases of contraction or narrowing has been recorded than of dilatation or widening of the intestine. Widening is found chiefly in the sigmoid flexure, where, from its forming a pouch, it is likely to produce obstinate constipation, and hence lead to depression. Narrowing begins in many cases in the ascending colon, and is developed in the rectum, or continued along the whole length of the large intestine.

Brach relates a case of narrowing of the transverse colon to such a degree, that the tube of a tobacco-pipe could not be introduced. In this case there was constipation and melancholia. The author then relates the *post-mortem* examination of a suicide, who destroyed himself with a pistol on the Rhine. The transverse colon was one-third, and the descending colon, as far as the rectum, above a half, narrower than normal. The man had been in easy circumstances, but subject to melancholy.

This narrowing of the tube the author regards as a congenital malformation; and he thinks that the prejudicial effects of such a structure manifest themselves between thirty and forty years, when the large intestine becomes more developed, in consequence of incipient cœcal digestion (blinddarm-digestion). Thus hypochondriasis and melancholia ensue.—*Pr. Ver. Ztg.*, 45. 1852.

GENERAL CORRESPONDENCE.

CREOSOTE INHALATION IN PHTHISIS, BRONCHITIS.

[To the Editor of the Medical Times and Gazette.]

Sir,—Will you permit me to call the attention of the Profession to a plan of treatment which I have found of great benefit in many diseases of the chest. I believe that it has been tried before, but I cannot at present lay my hand upon any account respecting it. I allude to the inhalation of the vapour of creosote combined with steam.

The first case in which I employed it was one of phthisis, in which the cough was peculiarly distressing, in consequence of the presence of necrosis and suppuration in both ears, which were attended with severe and constant throbbing pain. A host of opiates were tried, one after another, but had to be given up, from the sickness and headache they produced. I tried creosote inhalation, on speculation; and it answered so remarkably well, that its use was continued to within a few days of death. The patient always expressed himself as very grateful for the relief it gave to the cough.

Encouraged by the success attending this, I determined to try it in other cases, some of chronic bronchitis, the majority of phthisis. In all I have found it most useful in allaying cough, and checking secretion and expectoration. By allaying the cough, and thus increasing the comfort of the patient, it seems in some degree to increase the strength; at any rate, it saves its diminution. It does not of itself appear to possess any curative power. As a palliative, it is useful in all cases; and I have heard it spoken of most gratefully by a patient who only lived to use it for three or four days.

The mode of using it is very simple. I direct from four to ten drops of creosote to be placed in the bottom of an old teapot, and a small quantity of boiling water to be poured over it. The spout is to be protected by a piece of flannel, and the steam inhaled through that until it begins to feel cool. Care must be taken, of course, not to put too much water in. This answers well enough in poor practice. In hospital and private practice, more elegant apparatus may be used. An inhaler made by Weiss answers remarkably well. It consists of a closed tin can, holding about three pints; at the top are two large tubes, which communicate with the interior; one is furnished with an ivory mouth-piece, to prevent the lips being burned by the hot metal; the other is turned upwards, and, through this, the creosote and water are readily introduced. The size of the tubes makes the inhalation of the steam peculiarly easy. When this is employed, I find that the temperature of the water should not exceed 150°. The immediate effects are, a feeling of warmth about the throat, and a sensation "as if you had lungs under your ribs," followed by reduced irritability of the mucous membrane, and, subsequently, by evidence of the creosote having entered the blood.

It would take up too much space were I to detail all the cases in which I have employed it in hospital and private practice; one will suffice, and will serve to indicate the routine treatment I have adopted in phthisis.

A. B., seaman, aged 30, was admitted into the Northern Hospital with severe cough, dyspnœa, and profuse expectoration. He had been ill for three months, during which he had emaciated considerably. The pulse was 130, and there were copious night sweats. On examining the chest, I found solidification of the apex of the left lung, and coarse mucous râles all over the same side, both anteriorly and posteriorly. At the apex of the right lung there was tubular breathing in one spot, and prolonged expiration in another. The expectoration was of thick, semi-transparent mucus, free from air-bubbles, and mixed here and there with grey tubercular patches. He was ordered to have creosote inhalation three or four times, and to take internally half an ounce of cod-liver oil, with twenty-five minims of tincture of iron, three times daily. The severity of the symptoms abated in the course of a week, and, in six weeks, the man was convalescent. The right lung now seems perfectly healthy; all traces of solidification have disappeared from the apex of the left; the respiration there, and over the whole of that lung, has become natural. The pulse has come steadily down to 72. The man has gained flesh, and the capacity of the chest, as evidenced by the power to take in a deep inspiration, has signally increased.

I may mention, that the use of iron has been adopted in consequence of the effect it had on a little girl, who had been previously employing creosote inhalation and cod-liver oil for some weeks without any indication of improvement. In her case the whole of the left, and the upper part of the right, lung were implicated; but I could not detect any cavities. The case seemed hopeless, when she began with the tincture of the sesquichloride, in addition to her other medicine. In two days an improvement was seen; in four it was confirmed; and, in less than six weeks after, she was running about the wards rosy and well, and has continued so up to the present time—about two months more. I am, &c.

Liverpool. Thomas Inman, M.D.

INCOME-TAX.—THE MIDWIFERY EXAMINATION.

[To the Editor of the Medical Times and Gazette.]

Sir,—Having seen in the *Medical Times* the Petition against the Income-tax, and also against the admission of gentlemen to the new midwifery examination who are destitute of any diploma, we have determined upon adopting them both.

Thinking it may possibly stimulate others to action, I take the liberty of sending you this communication. I am, &c.

Thos. B. Kenderdine,

Hon. Sec. of the Macclesfield Medico-Ethical Association.

DR. SIMPSON AND HOMŒOPATHY.

[To the Editor of the Medical Times and Gazette.]

Sir,—Critics have occasionally been accused of passing judgment on a book without taking the trouble to use the paper-folder; but it does not often happen that an opportunity is given to prove the allegation. Let me call your attention to an amusing instance of self-condemnation, in the last Number of the *Critic*, a London literary journal, where the following notice may be found of Professor Simpson's masterly refutation of the pretensions of homœopathy:—

"Dr. James Simpson, of Edinburgh, has issued a third edition of his famous work on 'Homœopathy, its Tenets and Tendencies.' (Sutherland and Knox). Dr. Simpson is a convert to that theory and practice of medicine, and one of its most earnest and most able advocates. He treats his subject fairly and fully, and they

who desire to see all that can be urged in its favour, put in the most clear and intelligible form, will find it here."

I am uncharitable to enough to hope, that many of the conntenancers of this humbug may be induced, on this recommendation, to purchase and *read* the work.

Cheadle, Cheshire. I am, &c. A. Thom Thomson.

THE COLLEGE OF PHYSICIANS *VERSUS* THE COLLEGE OF PHYSICIANS.

[To the Editor of the Medical Times and Gazette.]

Sir,—As one of the Licentiates Extra-Urbem of the College of Physicians, I give you the reasons assigned by the College for their attempt to force from us, contrary to law and justice, a further sum of 15*l.* 15s., exclusive of Stamp-duty, and I am certain I shall prove to every who reads this, that the reasons assigned by Dr. Hawkins and the Committee of the New Charter for this unprecedented, unjust, and illiberal conduct on their part to the Extra-urbem Licentiates are frivolous and vexatious, and devoid of the sound arguments which one would expect to support the attempt of taking from us the same amount as they require from those who have never passed any examinations at the College of Physicians, or paid anything to its support, and who, as the law now stands, are not recognized as legally qualified Physicians. But to the reasons of the Charter Committee and Registrars for this new tax:

First reason is, that some of the Licentiates Extra-urbem are not Graduates, and have not undergone the ordeal or expense of graduation, or prior admission to any College of Physicians.

Second reason is, that the Graduates have stronger claims, their money being expended for the specific object of becoming Physicians.

Now, Sir, as to the first reason; and, I ask, how could it be expected that any man would undergn the expense and trouble of being first admitted to any other College of Physicians when no other College in the world could give him a legal qualification to practise as a Physician? Is it not absurd, in the first instance, to pronounce the College of Physicians in London as the only College which can make a legally-qualified Physician; and now to state, that I must pay 15*l.* 15s. because I did not undergo the ordeal and expense of admission to any other College? And, as to the reason, No. 2, this is more devoid of justice, if possible, than the former. When 22 years of age I passed the College of Surgeons and the Apothecaries' Hall, and my diplumas cost me 33 guineas, and I do maintain that a considerable sum was expended in general education; but I wished to add to those diplomas one that would give me a legal qualification to practise as a Physician. By going down to Aberdeen, or St. Andrew's, I could, by paying 25*l.* or 26*l.*, have had at once the degree of M.D., and then I should have paid my 26*l.* for "the specific object of becoming a Physician." But judge if I did not do much more to entitle me to become a Physician. On applying to the College of Physicians, I was informed, that upwards of three years' daily attendance on the medical practice of an hospital was required; and, although I had passed the College and Hall, I was obliged to attend two years longer (every day) in order to be eligible for examination! I did this; and what it costs to live in London for two years, I need not inform the reader. Well, Sir, after having done this, I passed the examination, and paid 24*l.* 18s. for the diploma. So you see I was at the expense of living in London for two years, and paid 24*l.* 18s. "for the specific object of becoming a Physician;" and I think no impartial person can say this was a part of my "general education." And now I think I have proved that I have as much claim to be a member of the College, under the New Charter, (for five guineas,) as any man; and I hope the College will pause ere they go on in a harsh and impolitic course. Strictly speaking, there ought to be no difference between the Licentiate Extra-urbem, and the Licentiate Intra-urbem; one is quite as much attached to the College as the other; and if the Committee on this Charter are deaf to our call for justice, and think only of the amount of money they can raise from us, why, we must one and all petition Lord Palmerston, and write to him our grievances; and I now entreat those Extra-Licentiates who have not graduated, to lose no time in appealing to the proper tribunal for redress. I hope these facts will be thought worthy of insertion in your next, for you have hitherto shown a willingness to give all parties an impartial hearing, and, so long as you do this, you will hold a high position with all branches of the Profession.

I am, &c.

A Licentiate (Extra-Urbem) of the College of Physicians.

COMPULSORY VACCINATION.

[To the Editor of the Medical Times and Gazette.]

Sir,—It is with great regret that I have witnessed the apathy manifested by the Medical Profession on the subject of the new Vaccination Bill introduced by Lord Lyttelton, as indicated by the almost complete silence hitherto preserved. As quite a junior member of the Profession, I have waited in the hope that those more experienced than myself would offer their suggestions on the subject; but with the exception of Messrs. Ceely and Hingeston, to whom you directly appealed in your very able article of April 16, no one has yet come forward to enlist himself in the cause. Under these circumstances, I trust I shall be pardoned for requesting permission to occupy a space in your columns. Although young in years, five years' experience in Union practice in country districts, and more than ordinary opportunities for carefully considering the subject of vaccination, have long convinced me that a system of compulsory vaccination is absolutely necessary. It seems almost presumptuous for me to venture an opinion contrary to the views entertained by the gentlemen before mentioned, and which I believe are, to a great extent, supported by your own powerful pen; at least, I gather from your writings, that, although agreed as to the advisability of the extension of vaccination, you do not consider it ought to be rendered compulsory under present circumstances.

Holding an appointment as Surgeon to a large Union district in a western country, in which ignorance and prejudice reign supreme, I have numerous opportunities of observing the obstinacy and ignorance entertained with regard to vaccination among the lower classes; and, in some parts of my district, I find it almost impossible to persuade the parents to have the children vaccinated. Into one parish, with a population of 500 or 600, I went three times last summer, for the purpose of vaccinating, having given due notice the week before; but only seven children could be found whose parents were willing to have the operation performed. No children had been vaccinated in this place for three years, and children abound in the place. Reasoning, threats, and persuasion alike fail. The usual objections are,—

1. That the children are subjected to a series of eruptions after vaccination.

2. Many prefer having small-pox, or, as they call it, "the real thing."

3. Others say, that it does not prevent small-pox.

4. But I believe the principal objection, though not often expressed, is, that there is a little trouble with the children during the progress of the disease.

Now, Sir, as medical men, we know how absurd and unfounded are such objections, especially the former three. On the second and third I shall not enter, for it is not necessary to discuss them; nor should I allude to the first had you not observed, in the article before alluded to, "that vaccination, although itself a perfectly harmless disease, often provokes, in children which are predisposed, an attack of some other cutaneous disease." I have either vaccinated, or seen vaccinated, about 800 or 900 persons of all ages, chiefly infants, but I do not remember ever seeing one case of eruption, subsequent to vaccination, which, for any long time, resisted the mildest alterative treatment; on the contrary, I have fresh in my recollection several cases where children of decidedly scrofulous diathesis, have, after vaccination, betrayed no symptoms of the disease, but have become quite healthy. I must add, that I attribute this immunity from disease to the fact, that I am very careful always to take my lymph from perfectly healthy subjects, and not later than the eighth day after the operation. With the last objection, we, as surgeons, have nothing to do; but I must repeat my belief, that nothing but a Bill rendering vaccination compulsory will suffice to overcome the obstinacy and prejudice manifested on the subject.

I can see no objection to the Bill as proposed by Lord Lyttelton, except that a very manifest injustice is by it perpetrated towards the Medical Profession, or at least those persons who may be appointed vaccinators, as by it they will be obliged to attend gratuitously those persons who may happen to be ill during the progress of the vaccine vesicle, or as clause 7 expresses it, "in consequence of it," even though they may be employed by these same families on other occasions on their own private account.

But you have so well argued this point, that I need do nothing more than suggest what I consider an efficient remedy to this great defect in the Bill. Let a clause be introduced into the Bill to compel the Boards of Guardians to raise the fees allowed for vaccination to 3s. or 3s. 6d. per case; and even then we shall barely be paid for the extra trouble we shall have in giving certificates, and for the chance that we shall frequently be called on to

attend gratuitously those who ought to pay for medical attendance; and I would suggest, that the amendment appended to your article of April 23, be expunged, for it is quite derogatory to the honour of our Profession, that we should be so completely under the control of the Guardians. It is, in effect, to make us complete slaves; and were the provisions of this Bill, with this amendment, carried out, it would occupy the whole time of any one man to manage a district such as I hold.

Many persons observe, that compulsory vaccination is unconstitutional; but I cannot recognise such to be the case; for it is not as if any doubt existed in the opinion of the Profession at large as to the benefit of vaccination; and I should be glad to be informed, how it can be that any one but a Medical man can be qualified to give an opinion. I firmly believe, that one of the greatest boons that can be conferred on society will be the passing of the proposed Bill, with a few amendments of a more liberal nature, at the same time avoiding anything which can tend to increase the power which the Guardians already possess over us. I am pleased to find that the Bill is postponed, and I trust, that, in the mean time, my Professional brethren who have had more experience than myself, will favour us with their views on this important subject. Apologising for trespassing so long on your time and space,

I am, &c.

Dorsetshire. A Constant Subscriber and Reader.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

Dr. Babington, F.R.S., President, in the Chair.

COMPLETE CLOSURE OF THE PULMONARY ARTERY.—CYANOSIS.

Dr. Hare presented a specimen of this malformation, taken from a child who died at the age of nine months. During life, the limbs were colder than natural, and of a dusky hue. Whenever the child coughed, or was moved much, he became distinctly blue. There was nothing unusual in the conformation of the chest, but close to the left nipple a purring tremor was detected, and at the apex of the heart a moderately loud systolic blowing murmur was audible. A *post-mortem* examination was made twenty-seven hours after death. There were about two drachms of fluid in the pericardium. The right auricle was much dilated and filled with blood. The foramen ovale was patulous, but extremely small. On cutting into the right ventricle, it was found that the carneæ columnæ were fused almost into one mass, so that this part of the right side of the heart was nearly solid. Towards the base of the ventricle, rudiments of the tricuspid valves were discernible, hanging into a cavity no larger than a moderate-sized pea. The pulmonary artery measured rather more than an inch in circumference at its middle, but the ventricular extremity terminated in a cul de sac, where there were some minute folds, probably rudiments of the pulmonary valves. At its upper extremity the vessel communicated with the aorta in the ductus arteriosus, the orifice of which was capable of admitting a crow-quill. The right and left pulmonary arteries were given off from the main trunk as usual. The left auricle was somewhat contracted, but the remaining structures of the heart were in their normal state. Dr. Hare remarked, that although instances of complete closure of the pulmonary artery were not rare, yet he thought the present specimen was almost unique, as exhibiting so contracted a foramen ovale in conjunction with that malformation.

EXTENSIVE ULCERATION OF THE STOMACH.

Mr. J. R. Robinson exhibited the stomach of a woman, aged 26, who, for ten years, had suffered from violent pains in the right side and stomach, which extended to the shoulders. For some time before her death, she had been seized with vomiting after taking food; and latterly had thrown up considerable quantities of blood. An examination of the body was made fifty-two hours after death. The liver was large and fatty, and adherent to the peritoneum, covering the abdominal wall and diaphragm, and attached also to the stomach. In consequence of this morbid connexion, the stomach was girt round and apparently divided into two cavities. Upon opening the stomach its pyloric orifice was seen to be contracted, and the pyloric valve thickened. Upon the under surface of the organ was an ulcer, as large as a crown-piece, which had apparently passed through all the coats, and been finally arrested by the liver, which adhered to the stomach at this spot. Mr. Robinson observed, that the character of the ulcer was ambiguous, several circumstances speaking for, and others against, the probability of its being malignant.

The specimen was delivered to Dr. Brinton and Dr. Lionel Beale to examine. These gentlemen have since reported, that, after careful examination, they were led to conclude, that the disease was not of a malignant nature, but merely an example of a simple ulcer of the stomach.

ALMOST COMPLETE OBSTRUCTION OF THE SMALL INTESTINE FROM INJURY.

Mr. Avery exhibited the intestinal canal of a man who died at the Charing-cross Hospital, under the care of Dr. Rowland. On the 3rd of September last, a wagon laden with wheat passed over his epigastrium and chest. He was carried to the nearest place, where he passed the night. On the following day, he managed to walk home. He was admitted into the hospital December 31, 1852. The abdomen was much distended, and he suffered much from pain and spasmodic contractions of the bowels. His bowels were at times loose, and at others confined; and on several occasions he vomited stercoraceous matter. He was carried off by an attack of acute peritonitis, which supervened eight weeks after his admission, and five months after the receipt of the injury. After death, the peritoneal sac was found to contain a considerable quantity of muddy, flaky fluid, and the intestinal coils were everywhere adherent to each other by soft lymph. The omentum terminated on the left side in a round cord, as large as the little finger. This cord passed over a large mass of small intestine, and underneath it, embracing in its passage the two extremities of a convolution so closely as apparently to prevent all passage through it. The cord was seen to be firmly attached to the free edge of another part of the small intestine, and opposite to this attachment, there was a lacerated aperture as large as a shilling, which seemed to have only recently healed. Between the attachment of the cord and the opening of the mesentery, the calibre of the intestinal tube, about three or four feet from the termination of the ileum, was so reduced as scarcely to admit a crowquill. Above the contracted opening the entire mucous membrane had been removed by ulceration for the space of an inch, and the other coats were thickened and amalgamated by inflammatory deposit. A very careful examination failed to find any ulcerated opening into the peritoneal sac.

Mr. Avery observed, that had an operation for the relief of the obstruction been thought advisable, the case would have added another to the many complications already on record in connexion with obstructing bands, as the operator would certainly have contented himself with dividing the cord that passed over the convolution, and only discovered the real seat of disease after death.

FLESHY MOLE.

Mr. Hutchinson exhibited a large "fleshy mole," which had been expelled by a married woman, 26 years of age, during an unusually severe attack of painful menstruation, to which she had been long subject. The specimen exhibited was as large as a fist, and was lengthened out into a shape resembling that of the unimpregnated uterus. It was of a firm texture throughout, and exhibited on section the aspect of a vascular substance, composed of tough organised lymph, in which were imbedded several small white bundles, about twice the thickness of a pin. These latter, when unravelled under the microscope, were seen to consist of fibro-cellular tissue. The greater part of the mass had the structure just described, but at its lower and posterior part was a substance as large as a walnut, which resembled a decolorised blood clot.

Mr. Hutchinson questioned whether these formations always resulted from change in the structure of blighted ova, and believed they might originate in inflammatory exudation from the uterine mucous membrane.

NEUROMA OF THE AUDITORY NERVE.

Mr. Toynbee exhibited a specimen of this affection, taken from a man, aged 73, who had been deaf for twenty years. The left ear was worse than the right. After death the tympanic membranes and other structures exhibited in both ears evidences of old inflammation, and in the left internal auditory meatus, besides the facial and auditory nerves, which were both in a healthy state, there was a tumour as large as a small pea. This tumour was equal in its consistence to the white matter of the brain, and received at its posterior aspect a small filament from the vestibular nerve, while from its anterior part a small branch entered the cochlea. The tumour was composed of matter similar to gelatine, in which nerve tubules were observed to be distributed. Some of these tubules seemed to terminate in rounded extremities.

ENCYSTED CALCULUS.

Dr. Quain exhibited, for Mr. J. E. Heath, of Newcastle-on-Tyne, an interesting specimen of encysted calculus, the shape of

which was very peculiar. It had been removed by Mr. Heath's brother from the bladder of a boy of 14, who was an in-patient in the Newcastle-on-Tyne Infirmary. He had suffered with symptoms of stone for eleven years. The stone was felt distinctly by the sound. During the operation, however, it could not at first be seized by the forceps, or felt by the finger. At length it was discovered attached to the anterior wall of the bladder, close behind the pubes. It was seized with a pair of forceps, but on attempting to extract it, a portion, which proved afterwards to be a projecting knob, broke off, leaving the main part of the calculus in the bladder. This was ascertained by the finger to be included in a cyst, from which it was found impracticable to extricate it without incisions. The mouth of the cyst was therefore carefully slit up with a probe-pointed bistoury, and the stone was then extracted with the finger and thumb. After the removal of the stone the finger could be passed into the cyst as into the finger of a glove, and through its wall, the symphysis pubis could be felt above, and the descending rami of the pubis on either side. The patient made a favourable recovery.

ANEURISM OF THE ASCENDING AORTA.

Mr. John Birkett exhibited a specimen of aneurism of the ascending aorta, taken from a man 40 years of age. He was admitted into Guy's Hospital, September 15, 1852, with a swelling on the right side of the chest, which pulsated synchronously with the heart, and extended from the first rib above to the fifth rib below, and transversely from the costal ends of the costal cartilages to their anterior angles. No bruit of any kind was audible. The man stated, that three weeks before his admission he was in sound health, there being no appearance of any swelling whatever. At that time, however, he was knocked down by a blow on the chest, and two days afterwards he perceived a small swelling at the right of the sternum. The swelling continued slowly to increase, so that in three weeks he was obliged to desist from work, and seek admission into the hospital. His muscular system was well developed, and he described himself as having been capable of enduring much toil without fatigue. For the last eighteen months before his admission, however, he had suffered from pains in the right arm. He died March, 1853. On *post-mortem* examination, the tumour was found to extend from the clavicle to the lower edge of the sixth rib, and from the right border of the sternum to the outer margin of the pectoralis major. The pectoralis major and minor were spread out over the swelling. At the lower edge of the pectoralis major there was a soft spot, half an inch in diameter, through which a sanious discharge oozed after the integuments had been detached. The right lung was compressed, and adherent to the posterior surface of the aneurism. The pericardium was distended with bloody serum. Both its parietal and visceral layers were covered with a thick layer of plastic lymph. On tracing up the aorta from the left ventricle, an oval aperture was discovered on its anterior and right lateral wall, which led into a large aneurismal sac. This orifice was placed just below the origin of the innominate artery. The internal surface of the aorta exhibited patches of calcareous deposition. The bodies of the third and fourth ribs had been wholly removed, as well as part of the second and fifth. When the fibrine was removed from the interior of the aneurism, the sac was found divided into two parts, an intra and extra-thoracic portion. The walls of the internal part were firm and rigid, while those of the external were thin and ill-defined. The limit between the two divisions was well marked.

MEDULLARY CANCER OF THE LEG.

Mr. John Birkett exhibited also a specimen of this variety of malignant disease, taken from a girl seven years old, who was admitted into Guy's Hospital, Feb. 23, 1853. The tumour was situated on the outer side of the left leg, and had commenced about three months previously, the parents ascribing its appearance to a bruise. Its growth had been marked by acute pain, which was especially agonizing at night. On the 12th of March, Mr. Birkett removed the disease by amputation above the knee. A vertical section of the fibula displayed a mass of medullary disease, surrounding and destroying the shaft of the bone, and freely infiltrated among the peronei and adjacent muscles. The outline of the periosteum was quite distinct, even where the bone had perished. At the lower third of the fibula the cancerous matter had been deposited between the bone and periosteum.

MIDDLESEX HOSPITAL.—The annual distribution of prizes took place at this school on the 4th of May, the Lord Bishop of Oxford in the chair. Nearly 300 persons were present at the meeting, held in the new Museums, which were opened for the first time on this occasion.

CHARGE OF PROCURING ABORTION AGAINST TWO "SURGEONS."

Cunningham, *alias* Smith, Currie, and Thomas, were placed at the bar on Thursday, before the Hon. G. C. Norton, on remand.

Mrs. Ann Mardon deposed: She (witness) lived in Ely-place, Holborn, and the Rev. George Campbell Gordon came to lodge at her house in the month of November, 1851, and remained there a lodger until last Saturday week, when he left, and had not taken away any of his things. Mr. Gordon is about fifty-three years old, an unmarried man, and a curate of the parish church of St. Andrew's, Holborn.

Eliza Mardon, in answer to counsel, stated, that she knew a person named the Rev. George Campbell Gordon, who was curate of St. Andrew's, Holborn, and who lodged at her mother's house, in Ely-place. In the month of September last an improper intimacy took place between Mr. Gordon and herself. In consequence of my state a lodging was taken for me at Hackney, in the month of December, and a medical man, Dr. Gillott, was called in to see me. At that time I was not conscious I was in the family-way. In passing I met Mr. Gordon, and had some conversation with him as to the state of my health. After that I sent the witness Griffin, an old servant of my mother's, to Mr. Mullens, a chemist, in Leather-lane, Holborn, to get some pills. When I sent Griffin out, I did not tell her to go to Mullens' shop in particular. I did not mention any shop, nor did I suggest the name of the prisoner Thomas. At that time I had not heard it. The next night, in consequence of what the witness Griffin told me, I went to Mullens' shop myself, and then I saw the prisoner Thomas. I asked him if he was the gentleman that a woman had been to see about a young person. He said "Yes," and asked me to walk into the surgery, behind the shop. He felt my bosom and my stomach, and told me that I was in the family way. He said that he had got a friend who would put me all right. I asked him what I should have to pay, and his reply was "10*l.*" At that time nothing was said as to whether I was married or single. I did not say to him that I was in the family way. I did not believe it till he told me. I said 10*l.* was a great deal of money to give, and I did not know whether I should be able to get it or not. He said he should see his friend, and desired me to call again. On the following Monday, or two or three days afterwards, in the evening, I think I saw the prisoner Thomas at the shop in Leather-lane. He told me he had seen the gentleman, and "he would do the job for the 10*l.*" He did not say what he was to do. That was all that passed. He did not mention the name of his friend at that time. I was told to call, and though no time was mentioned I did call again in a day or two afterwards. I think it was in the evening; and I told the prisoner Thomas that I was not quite right. He asked me if I lived at home, and I told him I lived with my mother. He did not ask me my name, but gave me a bit of paper with "Dr." Smith's address upon it. That paper I have lost; but it stated that "Dr." Smith could be seen from 11 to 12 o'clock at Mr. Currie's, No. 10, Norfolk-street, Tottenham-court-road, near the Middlesex Hospital. I went to Mr. Smith's address, and asked for him. On doing so I saw the prisonner Cunningham, who came out from behind the counter. The shop was a chemist's shop, and the prisoner Cunningham asked me if I was the young person Mr. Thomas had been speaking to him about. I said, "Yes." At this time I thing Mr. Currie was in the shop, but I can't say that he heard me ask for "Dr." Smith, nor whether he was near enough to hear what had been said. The prisoner Cunningham, *alias* Smith, said to me, "Go into the surgery," and I went. He pulled down the blind, and was going to examine me, but he would not do it without the money down. I told him I had but 2*l.*, which I took out of my purse, and placed them on the table. He said he could not give his advice until he had the 10*l.* down. I said I had not got it with me, but that I had got it at home; and I asked him if he would arrange to come down to my lodgings at four o'clock the next day. Before this I had asked Mr. Gordon for the money, and Mr. Gordon gave me the 10*l.* I called again at the prisoner Currie's, and saw a woman, and asked if "Dr." Smith was at home. The woman said, "No," but called "Dr." Currie. I asked him if "Dr." Smith was at home. He replied in the negative, but that any message that I left he would deliver to him. Accordingly I left a message for "Dr." Smith to call on me at my lodgings. He came, and I gave him the 10*l.* He told me to lie on my left side on a sofa in the room. and I did so. He used some instrument under my clothes. A full quarter of an hour elapsed during the operation. I cannot tell how far the instrument went, but during the operation, in which both the prisoner's hands were engaged, I felt something going round like a worm or a corkscrew. There was not

any particular pain. He told me to bear it patiently, and after half an hour I got up. He asked me "how I felt;" I said "pretty well," and then he left. He came again every day for about a week. I never saw the instrument, but I believe he used it every time he came. On each occasion that he came the operation was the same. I lay on my side every time and felt a pain, a short pain, when the instrument was used. At the end of the week he said "he was quite satisfied that everything was done that he could do; that I was not longer than two months gone with child; and that there had not been anything formed. This was all he said to me as to my being in the family way." He added, "that he had cleared the womb completely out." About a week after this I went home to my mother's, where I remained about two months. In that time I frequently saw Mr. Gordon. I told him I was not in the way I should wish to be. He said he would write and ascertain if "Dr." Smith would see me again. I called two or three times at the prisoner Thomas's, and he said he should forward any letter or message to "Dr." Smith, and, eventually, I wrote a letter to "Dr." Smith and gave it to Mr. Thomas, making an appointment with the former to meet him at 24, Essex-street, Strand, a lawyer's. There I went to an empty room at the top of the house, in company with a Mrs. Cornelius, who is sister to Mrs. Halcomb, in whose house I now live. The prisoner Smith came to us in the empty room, and then again performed another operation on me the same as before, and with an instrument, as I felt a similar pain. He then told me it was "polypus," and used the instrument as before. He told me I must get away from home for a week, and desired me to take a lodging; and, in consequence, I got the lodgings where I am now staying. It was on the 11th of April that I was in the empty room in Essex-street, and on the Tuesday following I went to Stockwell. After getting my mother's consent to go to Mrs. Halcomb's, I wrote to the prisoner Smith, to request him to call on me at my new lodgings, and left the letter at Thomas's, requesting him to forward it. Thomas inquired what "Dr." Smith had said about me, and I said, "a polypus." Smith called on me on the day I removed to Stockwell, and he then used the instrument in the back parlour at Mrs. Halcomb's, while I was in the same position as before, with my face to the wall. By his desire I had first locked the door and pulled down the blind. He came again on the Wednesday and Thursday, and applied the instrument as before. On the Friday and Saturday he brought me some powders, which were taken in water, and were very nasty to the palate. They were of a greyish colour, and gave me great pain in my stomach, and so I told "Dr." Smith. On the Tuesday or the Wednesday he used the instrument again, but did not say anything about the powders. On the Saturday I felt very ill indeed, and sent for him to the lodgings he had taken at Stockwell. He came between seven and eight on the Sunday morning, and inquired how I was, and I said "very ill." He replied, that the "pains were coming on." He came again in the middle of the day, when I told him I felt much worse, and he said, "it will be soon over." He came a third time, in the afternoon, and remained sitting at my bedside two or three hours. On Friday and Saturday he wished me to get up, but the pains were so great that I could not do so. On the Sunday evening, when my mother arrived, "Dr." Smith was in the room with me, but, on hearing her voice, he left and went into another room. My mother finding me so ill, said she wished a doctor to see me, and while she was gone for a doctor "Dr." Smith returned to the room. My pain at this time was very great, and "Dr." Smith took something from me with his hand, which he put into a piece of paper and carried away with him. The prisoner Smith called on me on Monday, when he said he was very glad to see me going on so well, though I was very poorly, and I have never seen him since.

A further remand was requested and acquiesced in.

UNIVERSITY OF ST. ANDREWS.

FIRST EXAMINATION.

TO BE TRANSLATED INTO ENGLISH.

Vomitus utilior est hieme, quam æstate; nam tum et pituitæ plus, et capitis gravitas major subest. Inutilis est gracilibus, et imbecillum stomachum habentibus; utilis vero plenis et biliosis omnibus, si vel nimium se replerunt, vel parum concoxerunt. Nam, sive plus est, quam quod concoqui possit, periclitari ne corrumpatur, non oportet: sive jam corruptum est, nihil commodius est, quam id, qua via primum expelli potest, ejicere. Itaque, ubi amari ructus cum dolore et gravitate præcordiorum sunt, ad hunc protinus confugiendum est. Idem prodest, ei, cui pectus æstuat et frequens saliva, vel nausea est; aut sonant aures, aut madent oculi, aut os amarum est. Similiterque ei, qui vel cœlum, vel locum mutat; hisque, quibus, si per plures dies non vomuerunt, dolor præcordia infestat. Neque ignoro, inter hæc præcipi quietem, quæ non semper contingere potest agendi necessitatem habentibus: nec in omnibus idem facit.

CHEMISTRY AND MATERIA MEDICA.

1. What are the chemical constitution and modes of preparation of nitrous oxide, nitric oxide, and nitric acid?

2. Describe the chemical constitution, and the modes of preparing hydrocyanic acid; also the methods of testing for this acid.

3. What are the leading substances contained in opium, and what is the mode of testing for opium?

4. What are the principal medicinal uses of hydrocyanic acid, and of the preparations of opium?

5. What are the chief varieties of cinchona bark, and the salts on which their activity depends? How is disulphate of quinine prepared? How could you prove that it is unadulterated with sulphate or carbonate of lime, borax, sugar, starch, or salicine? What are the most important uses of quinine in the treatment of disease?

6. Write a Latin prescription, without using abbreviations, for a draught containing a scruple of carbonate of potash, a drachm of syrup of ginger, and an ounce and a half of distilled water, and give directions for its being taken in a state of effervescence after the addition of a table-spoonful of lemon juice.

SECOND EXAMINATION.

ANATOMY AND PHYSIOLOGY.

1. Name the different foramina through which the nerves leave the cavity of the cranium, and state very briefly the functions of these nerves.

2. Describe the anatomy of the temporo-maxillary articulation. In what direction does dislocation most commonly occur?

3. Describe the diaphragm. What is its position in its relaxed, and what in its contracted state? Name the classes of animals in which a diaphragm is found.

4. Describe the position of the subclavian arteries in relation to the adjacent parts. At what part of their course can a ligature be most easily applied? In what cases is such an operation demanded?

5. What are the principal nerves given off by the lumbar plexus? Describe their course.

6. Describe briefly the physical and chemical characters of the fluids subservient to digestion, and explain their respective functions.

THIRD EXAMINATION.

N.B.—In answering the practical questions, the Examiners require every candidate to specify the mode of treatment he is in the habit of adopting, and the doses of the medicines which he prescribes.

PATHOLOGY AND PRACTICE OF PHYSIC.

1. Name the different entozoa that infest man, and state the organs in which they respectively occur. What explanation has recently been given of the manner in which some of these animals find their way into the system? Describe the treatment in a case of tapeworm.

2. Describe the symptoms, ordinary complications, and treatment of distinct and confluent variola. In fatal cases, when does death most commonly occur?

3. Give a sketch of the leading symptoms in cases of hysteria. With what diseases is hysteria liable to be confounded? Describe the treatment both during the paroxysm and during the intervals.

4. Describe the various conditions upon which jaundice may depend, and the treatment requisite in the different cases.

5. Describe the two principal varieties of acute rheumatism, and the treatment which they require.

FOURTH EXAMINATION.

MIDWIFERY.

1. Under what circumstances does it become advisable or necessary to perform the operation of turning? What are the rules for the procedure, and what the difficulties and dangers in the execution of it?

2. What are the difficulties and dangers attendant upon the separation and expulsion of the placenta, and how are they to be met?

SURGERY.

3. What are the different dislocations to which the head of the humerus is liable; what are the muscles concerned; and how is reduction best to be effected?

4. What are the various fractures to which the ulna is liable; and how are they severally to be treated?

5. What are the steps of the operation for tying the femoral artery in the groin; and what relations do the neighbouring muscles, nerves, and veins, hold to the vessel in that region?

6. What are the steps, and what the dangers, of the operation for extracting a cataractous lens; and in what cases is that operation to be selected?

PRESENTATION FOR DEGREES AND HONOURS, AND THE DISTRIBUTION OF PRIZES.—1853.

UNIVERSITY OF LONDON.

PRESENTATION FOR DEGREES.

John Charles Bucknill	M.D., Univ. Coll.
Charles Cowdoll	
Alfred Jackson	
John Russell Reynolds	
Charles James Shearman	
William Thomas Garrett Woodforde	
Thos. Rhodes Armitage	M.D., King's
Samuel Griffith	
John Syer Bristowe	M.D., St. Thos. Hospital
Jas. Samuel Drury	M.D., Adjg. St. George's Hos.
T. Armstrong Cammack	M.B., Univ. Col.
William Thomas Gayo	
Joseph Lister	
Thomas Littleton	
John Henry Trouncer	
Thomas Bridgwater	M.B., King's Col.
R. Coane Roberts Jordan	
Henry Parfitt	
Frederick William Pavy	M.B., Guy's Hos.
Thomas Morley Rooke	
Bernard Rice	M.B., St. Bartholomew's Hos.
Thomas King Hornidge	M.B., St. George's Hospital
Elias Jones Roberts	M.B., Richmond Hos., Dublin

PRESENTATION FOR HONOURS AND PRIZES.

Scholarship and Medal in Physiology and Comparative Anatomy.—Thomas King Hornidge, St. George's Hospital.
Medal in Physiology and Comparative Anatomy.—Robert C. Roberts Jordan, King's.
Scholarship and Medal in Surgery.—Joseph Lister, University.
Medal in Surgery.—Thomas King Hornidge, St. George's Hospital.
Scholarship and Medal in Medicine.—Thos. Morley Rooke, Guy's Hospital.
Medal in Medicine.—Frederick Wm. Pavey, Guy's Hospital.
Scholarship in Mathematics.—James Savage, University.
Scholarship in Classics.—Frederick William Farrar, King's.
Prize in Chemistry.—Henry E. Roscoe, Univ.
Prize in Animal Physiology.—G. McMichael, Stepney.
Exhibition and Medal in Anatomy and Physiology.—Henry Power, St. Bartholomew's.
Medal in Anatomy and Physiology.—John Zachariah Laurence, University.
Medal in Chemistry.—George Buchanan, B.A., University; J. Z. Laurence, Univ.
Medal in Materia Medica.—Frederick Moon, Guy's Hospital; John Z. Laurence, Univ.
Medal in Botany.—Henry Power, St. Bartholomew's Hospital.
Exhibition in Mathematics.—Thos. Savage, University.
Exhibition in Classics.—Alfred Bache, Edgbaston Grammar-school; Robert James Donne, King's.
Prize in Chemistry.—Wm. Turner, St. Bartholomew's Hospital.
Prize in Zoology.—William Newman, St. Bartholomew's Hospital
Prize in Botany.—William S. Jevons, Univ.

UNIVERSITY COLLEGE.

Prize.—40*l.*, for general proficiency (1852). Mr. W. Roberts.
Anatomy and Physiology.—Gold medal, G. Buchanan; silver medal, F. G. Clarkson and W. Harris (equal.)
Anatomy.—Gold medal, F. W. Sayer; first silver, J. D. Scurrah; second silver, W. B. Ramsbotham, jun.; silver, J. G. Blake.
Chemistry.—Gold medal, W. S. Jevons; 1st silver, F. W. Sayer; 2nd, G. Martineau.
Birkbeck Laboratory Students.—Gold medal, J. Spencer; silver, W. Melhuisch.
Comparative Anatomy.—Gold medal, T. Hollingsworth.
Surgery.—Gold medal, F. W. Sayer; silver, J. Z. Lawrence and J. Turle (equal.)
Medicine.—Gold medal, G. Buchanan; silver, Wilson Fox.

SUMMER TERM.

Botany.—Gold medal, J. G. Godfrey; silver, F. W. Sayer.
Pathological Anatomy.—Gold medal, W. Roberts; silver, St. J. Edwards.
Midwifery.—Gold, W. Roberts; 1st silver, R. B. Smart; 2nd silver, T. Hillier.
Ophthalmic Medicine and Surgery.—Silver medal, F. W. Sayer.
Medical Jurisprudence.—Prize (equal), W. Roberts and T. Hillier.
Materia Medica.—Gold, G. Buchanan; 1st silver, S. Nesfield; 2nd silver, H. Maudsley.
Follows' Clinical Medals (1852).—Gold, J. S. Gamgee; silver, T. Hillier; 1853—gold, Wilson Fox; silver, R. B. Smart.

KING'S COLLEGE, LONDON.

Senior Scholar.—William John Palmer.
Second Year Ditto.—Frederick Portor Smith.
Junior Scholars.—Francis Workman, George W. Lawrence, James R. Truer.
Warneford Scholars.—Charles H. Harvey, Charles G. Strickland.

WARNEFORD ENDOWMENT.

First Prize.—Alfred Playne.
Second Prize.—Edward Liveing.

LEATHE'S ENDOWMENT.

First Prizes.—Philip G. Martel.
Second Prize.—Christopher Heath.

PRIZES.

Anatomy.—Thomas Buzzard.
Physiology.—Nottidge C. Macnamara.
Chemistry.—Edward Adamson.
Medicine.—Edmund M. R. Rendle.
Surgery.—William H. Dodge.
Surgical Clinical.—Cecil C. Cogan.
Medical Clinical.—William Pearl.
Medical Society's Prize.—William Pearl.
Botany.—Frederick P. Smith.
Materia Medica.—Frederick P. Smith.
Practical Chemistry.—Edward Dowson.
Midwifery.—Edmund M. R. Rendle.
Forensic Medicine.—William Langford.
Comparative Anatomy.—William E. Masfen.
Medical Clinical.—William J. Palmer.
Surgical Clinical.—John W. Hulke.

CERTIFICATES OF HONOUR.

Anatomy.—Samuel D. Bird, Nottidge C. Macnamara, John L. Propert, Thomas P. Teale, Rinso R. Siccama, Griffith R. Jenkins.
Physiology.—Samuel D. Bird, Thomas Buzzard, (equal), John F. Straker, T. P. Teale, R. Rinso Siccama, William E. Cates.
Chemistry.—Thomas Buzzard, T. P. Teale.
Medicine.—M. T. Masters, W. Langford.
Surgery.—E. M. R. Rendle, M. T. Masters.
Surgical Clinical.—T. Macaulay, P. C. Price.
Medical Clinical.—Edward Liveing.
Botany.—Douglas A. Reid.
Materia Medica.—Nottidge C. Macnamara, William Woodward.
Practical Chemistry.—John Martin Hyde.
Midwifery.—John H. Drew, Wm. J. Palmer, William Langford.
Forensic Medicine.—Maxwell T. Masters, William J. Palmer.
Comparative Anatomy.—John W. Hulke.
Medical Clinical.—Edmund M. R. Rendle.

ASSOCIATES.

W. J. Palmer (Senior Scholar), William E. Masfen, John W. Hulke, Alfred Playne, Edward Simpson, James Strange Biggs, W. A. Brace, R. C. N. Davies, Thomas Dickinson, R. S. Fowler, John F. Tierney, Charles M. Jossop, John H. Sylvester.

ST. BARTHOLOMEW'S HOSPITAL.

Wix Prize.—A. H. Sankey, Dover.
Bentley Scholarship.—F. A. Humphry, Balham Hill.
Anatomy, Physiology, and Chemistry.—W. Turner, Lancaster.
Bentley Prize.—A. H. Sankey, Dover.
President's Prize.—F. A. Humphry, Balham Hill.
Mr. Lloyd's Prize.—F. A. Stutter, Gazeley.
Mr. Robert Hichens' Prize.—James Lovell, Canterbury.
Mr. G. H. Foster's Prize.—W. Turner, Lancaster; J. L. De la Gardo, Exeter (equal.)

MEDICINE.—(Dr. Burrows.)

1st Prize.—F. A. Humphry, Balham-hill; Edward James, Exeter (equal.)
2nd Prize.—J. Lovell, Canterbury.
Hon. Certificate.—F. Blackman, Canterbury. H. Bicknel, Hearne-hill.

SURGERY.—(Mr. Lawrence.)

1st Prize.—F. A. Humphry, Balham-hill.
2nd Prize.—J. Lovell, Canterbury.

ANATOMY.—(Mr. Skey.)

Senior Class.

Prize.—F. A. Nesbitt, Louth.
Hon. Certificate.—Jas. Lovell, Canterbury. William Keal, Oakham.

Junior Class.

Prize.—J. L. De la Gardo, Exeter.
Hon. Certificate.—W. Stanwell, Gainsborough. D. R. Watkyne, Carmarthen. JamesShaw, Plymouth.

PHYSIOLOGY.—(Mr. Paget.)

Senior Class.

Prize.—F. A. Nesbitt, Louth.
Hon. Certificate.—Edward Bletchley, London William Keal, Oakham.

Junior Class.

Prize.—W. J. Smith, London.
Hon. Certificate.—T. S. Gray, Norton. D. R. Watkyns, Carmarthen. Edmund Oldfield, Ashill. W. Stanwell, Gainsborough

MIDWIFERY.—(Dr. West.)

1st Prize.—F. A. Stutter, Gazeley.
2nd Prize.—F. A. Humphry, Balham-hill.
Hon. Certificate.—G. B. Mead, Ramsay. J. Lovell, Canterbury. Charles Farrar, Bedford.

PRACTICAL MIDWIFERY.—(Dr. West.)

1st Prize.—F. A. Stutter, Gazeley.
2nd Prize.—R. S. Davey, Walmer.
Hon. Certificate.—E. Bletchley, London. E. H. Rowcliffe, Tarporley.

CHEMISTRY.—(Mr. Stenhouse.)

1st Prize.—T. S. Gray, Norton.
2nd Prize.—W. Chippindale, Tonbridge.
Hon. Certificate.—T. H. Turney, Halifax.

PRACTICAL CHEMISTRY.—(Mr. Stenhouse.)

Prize.—W. J. Rendell, Wadebridge.
Hon. Certificate (equal.)—F. Fisher, Norwich; G. B. Mead, Ramsay.

MATERIA MEDICA.—(Dr. Roupell.)

1st Prize.—F. A. Nesbitt, Louth.
2nd Prize.—J. Pollard, Torquay.

BOTANY.—(Dr. Farre.)

1st Prize.—John Hichens, Redruth.
2nd Prize.—G. B. Mead, Ramsay.
Hon. Certificate.—R. Adams, Plymouth.

MEDICAL JURISPRUDENCE.—(Dr. Baly.)

Prize.—F. A. Humphry, Balham Hill
Hon. Certificate.—T. L. Rogers, London.

Collegiate Prize, given by the Treasurer to the Resident Student of the College who most distinguishes himself in the Examinations.—F. A. Humphry, Balham Hill.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS.—NEW FELLOWS.—The following gentlemen having undergone the necessary examinations, were admitted Fellows of the College, at a meeting of the Council on the 12th inst.:—

BARWELL, R., Maddox-street; diploma of membership dated October 6, 1848.
BRYANT, T., Montague-place, Clapham-road; August 6, 1849.
GWYNN, SAMUEL B., Wem, Salop; August 2, 1844.
HARRIS, J. P., Clarence-street, Liverpool; May 3, 1841.
HOLMES, TIMOTHY, Hamilton-terrace, St. John's-wood, not a member.

LICENTIATES OF MIDWIFERY.—The following members of the College having undergone the necessary examinations, were admitted Licentiates in Midwifery of the Royal College of Surgeons, at the meeting of the Board of Examiners on the 11th inst.:—

BELLIN, WILLIAM FIELD, Great Yarmouth; diploma of membership dated July 12, 1852.
BODINGTON, G. FOWLER, Sutton, Coldfield; Nov. 9, 1849.
BUTLER, JOHN MATTHEW, Woolwich; December 10, 1852.
CHEATLE, T. HENRY, Burford, Oxon.; October 15, 1852.
CORNELIUS, G. C., St. George's Villas, Canonbury; July 28, 1835.
HALE, THOMAS FREDERICK, Petworth; April 1, 1853.
HERBERT, LLOYD, St. Mary Bourne, Hants; May 6, 1853.
MATTHIAS, DAVID, Cardigan; May 6, 1853.
PRITCHETT, JOHN BENSON, York; March 23, 1853.
STORMONT, HENRY JOSEPH, Wallingford; July 23, 1850.
WALKER, W., Hermitage-place, St. John's-street-road; July 15, 1836.

THE COLLEGE LECTURES.—Professor Owen concludes his course of lectures on Comparative Anatomy this day. Professor Skey will commence his course on Tuesday, and deliver six lectures on the following subjects:—Muscular Action, Dislocations, and the Treatment of Disease.

APOTHECARIES' HALL.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, May 5, 1853:—

BROOKES, THOMAS, Whitchurch, Salop.
CLAPTON, EDWARD, Stamford, Lincolnshire.
HALE, THOMAS FREDERICK, Petworth, Sussex.
PORTER, JOSEPH, 133, Rotherhithe-street.

APPOINTMENTS.

MEDICAL.—HANTS COUNTY HOSPITAL, WINCHESTER.—Mr. Richard Smith, Mr. H. Sutton Lyford, and Mr. Fred Butler, have been appointed Assistant-Surgeons to this Institution.

NAVAL.—Surgeons: John Ward (a), (1851), to the Comus; John Ternan, M.D., (1851), to the Nerbudda.

MILITARY.—23rd Foot: Surgeon Joseph Burke, from the 24th Foot, to be Surgeon, vice Gamble, who exchanges.—24th Foot: Surgeon Richard Gamble, M.D., from the 23rd Foot, to be Surgeon, vice Burke, who exchanges.—Hospital Staff: Staff Assist.-Surgeon William Thomas Hoskin, M.D., to be Staff Surgeon of the Second Class, vice Affleck, deceased; William Snell, gent., to be Assistant-Surgeon to the Forces, vice Hoskin, promoted on the Staff.

MILITIA.—Denbighshire Yeomanry Cavalry: William Rowland, Esq., to be Surgeon, vice Lloyd Williams, resigned. 2nd or North Durham: Edwin Tyler, gent., to be Surgeon. Royal Monmouthshire: George Nilson, gent., to be Ensign and Assistant-surgeon. 1st Cornwall: Francis Tamblyn Nicholas, gent., to be Assistant-surgeon.

DEATHS.

BIRCH.—May 8, at the residence of his brother-in-law, Frederick Wood, Esq., of St. Bartholomew's Hospital, William Richard Birch, Esq., a student of the hospital, aged 20, from typhus fever, accompanied with the usual maculated rash, after only a few days' illness. This gentleman, who was much esteemed by his fellow-students for his talents and kindness of disposition, expired last Sunday, at half-past eleven a.m., in the house of the Apothecary to the Hospital. We hear that another of the students is severely ill of the same disease, which has prevailed of late to a greater degree than usual, and has caused a considerable influx of patients into the wards. Both gentlemen were holding the appointment of clinical clerk.

GOLDIE.—May 2, at Sheffield, George Goldie, Esq., M.D., late of York, aged 69.

SCOTT.—May 3, at 4, Rutland-street, Edinburgh, John Scott, Esq., M.D. Edin. 1819; F.R.C.S. Edin.; Fellow of the Royal College of Physicians of Edinburgh; Physician to the Queen for Scotland; F.R.S. Edin.

YOUNG.—May 8, at 1, South-place, Camberwell-grove, aged 36, William Baker Young, Assistant-surgeon 73rd Regiment.

THE ROYAL SOCIETY.—The Earl of Rosse, as President of the Royal Society, gave his second *soirée* for the season on Saturday last. It was attended by the following gentlemen, among others:—Sir R. Murchison, Sir B. Brodie, Sir D. Brewster; Drs. Paris, Granville, Boyle, Bence Jones, Hooker, Acland, Mayo, Rees, Holland, Roget, Webster, Gray, Carpenter, Thompson, Billing, Grant, A. Taylor, Tweedie, Lee, Wood, Bache, Forbes, Playfair; and Messrs. Toynbee, Bowman, and Pettigrew.

MEDICAL BENEVOLENT COLLEGE.—On May 9, the Bishop of Oxford preached a sermon at St. Peter's Chapel, Vere-street, Cavendish-square, in aid of the funds of this Institution. The Right Rev. preacher urged, that the Institution was an object particularly deserving public support. It was proposed to provide for 100 widows and 100 children. It had been devised by one then in the congregation, one of the oldest inhabitants in the parish of Marylebone, by whose exertions, of the 20,000*l.* required, 17,000*l.* had been raised, leaving 3000*l.* to be subscribed, in order that the Institution may be opened. The Bishop's appeal was followed by the collection of 130*l.* His Lordship most liberally contributed 30*l.* on the occasion.

THE ARMY MEDICAL BENEVOLENT SOCIETY.—The Anniversary Dinner of this Society will be held at the Thatched-house Tavern, St. James's-street, on Saturday, the 21st inst., on which occasion George James Guthrie, Esq., F.R.S., will preside.

THE ROYAL ACADEMY. — Among the numerous portraits and busts to be found in the exhibition of the present year there are some eighteen or twenty of medical practitioners. We may point out to our readers two pieces of sculpture well worthy of careful inspection. The first, numbered 1400, and described in the catalogue as a "Marble Bust of James Moncrieff Arnott, Esq., F.R.S., late President of the Royal College of Surgeons; executed by (H. Weekes, A.,) order of the Council," is an admirable likeness of this excellent surgeon, and a fine specimen of the sculptor's talent. The second, numbered 1450, is also a bust in marble of the late John Dalrymple, F.R.S., and forms a testimonial which is about to be presented by some of this gentleman's medical friends to the College of Surgeons. The likeness is good and pleasing, and will enable future surgeons to observe the features of the lamented Author of the "Pathology of the Human Eye." This testimonial, which was first proposed, we believe, by Dr. Bence Jones, does honour, not only to the late Mr. Dalrymple, but also to the subscribers, by whose means the bust has been executed.

YELLOW FEVER was prevalent among the shipping in Jamaica on the 21st ult.

SMALL-POX.—The small-pox was making terrible havoc among the Indian population at California.

COMMON LODGING-HOUSES.—Lord Shaftesbury has laid on the table of the House of Lords a Bill, which has been just printed, for making further provisions with respect to common lodging-houses. Among the alterations, it is proposed, that a conviction for a third offence shall disqualify a person from keeping a common lodging-house. Power is to be given to inspect common lodging-houses. All such places are to be registered before they are used. A certificate as to character may be required for common lodging-house-keepers. Sick persons may be removed from common lodging-houses; and compensation for loss of bedding, etc., is not to be paid to offenders against the Act. The term "common lodging-house" is to extend to other houses than at present.

LUNATICS.—The House of Lords has ordered a return, which has just been printed, of the number of lunatics under inquisition who are resident in asylums, and the amounts of their respective incomes and allowances for maintenance. There are 238 persons confined in asylums, including licensed houses. In many of the cases, the whole income is applied for maintenance. The largest income in one case is 5,000*l.* a-year, of which 700*l.* is for the support of the lunatic, and 2,500*l.* for keeping up Hazlewood Castle.

RECIPE FOR ROYALTY.—Macaulay gives the following as the medical treatment of Charles II., during his last sickness. All the medical men of note were summoned, and one of the prescriptions was signed by fourteen doctors. "He was bled largely, a hot iron was applied to the head, and a volatile salt, extracted from human skulls, was forced into his mouth." He survived this treatment four days.

Mortality Notabilia.—The continuous improvement in the public health that has been lately remarked seems to have been arrested, for the deaths in London that had fallen in the previous week to 1089 rose again in the week that ended last Saturday to 1159. In the ten corresponding weeks of the years 1843-52 the average number was 918, which, if raised in proportion to increase of population, becomes 1010. Hence it appears that the actual mortality exceeds the estimated amount by 149. In comparing the returns of the last two weeks it is seen that the deaths of children under 15 years rose from 507 to 561, those of persons of 60 years and upwards from 223 to 239, while those in the middle period of life did not vary in amount. Diseases of the respiratory organs were fatal in 224 cases last week; the unusual severity of complaints of this kind will be apparent from the number in corresponding weeks, which was 143, and this, with a correction for increased population, is 157. Sixty-eight children died of hooping-cough. Three deaths occurred in the week in the London Fever Hospital. Mr. Watts, the Registrar, says: "The patients are coming in fast, and 121 beds are occupied. The convalescent, who require nourishing diet, form a large portion of the establishment."

Meteorology.—At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·773 in. The reading of the barometer decreased from 29·79 in. at the beginning of the week to 29·64 in. by 9h. a.m. on the 3rd; increased to 30·01 in. by 9h. p.m. on the 4th; and decreased to 29·46 in. by the end of the week. The mean temperature of the week was 47·9°, which is 3·8° below the average of the same week in 38 years. On the first two days the mean daily temperature was above the average; on all the following days it was below it; and this depression amounted to 8·8° on Friday, and 14·2° on Saturday. The highest temperature was 65·5° on Sunday; the lowest was 36·3° on Saturday. The greatest difference between the dew-point temperature and air temperature occurred on Sunday, and was 18·7°; the mean of the week was 4·5°. The wind, which in the early part of the week blew from the south-east changed to north-east in the last four days.

Mortality in Public Institutions for the week ending May 7:—

	Males.	Females.	Total.
Workhouses	54	51	105
Military and Naval Asylums ..	4	..	4
General Hospitals	32	16	48
Hospitals for Special Diseases .	4	1	5
Lying-in Hospitals	..	..	..
Lunatic Asylums	3	2	5
Military and Naval Hospitals..	2	..	2
Hospitals and Asylums for Foreigners	..	..	..
Prisons	..	..	..
	99	70	169

DEATHS *in the Metropolis for the week ending Saturday, May 7*, 1853.

Causes of Death.	May 7. 0	15	60	All Ages.	Sum of Ten Weeks.
All Causes	561	355	239	1159	9179
Specified Causes	559	354	239	1153	9122
1. Zymotic (or Epidemic, Endemic, and Contagious) Diseases ...	172	30	15	217	1798
Sporadic Diseases:					
2. Dropsy, Cancer, and other Diseases of uncertain or variable seat ...	8	35	21	64	446
3. Tubercular Diseases	67	126	10	203	1875
4. Diseases of the Brain, Spinal Marrow, Nerves, and Senses ...	65	24	36	125	1143
5. Diseases of the Heart and Blood-vessels	2	25	23	50	362
6. Diseases of the Lungs and of the other Organs of Respiration ...	116	47	61	224	1431
7. Diseases of the Stomach, Liver, and other Organs of Digestion...	36	27	17	80	596
8. Diseases of the Kidneys, etc. ...	...	7	1	8	99
9. Childbirth, Diseases of the Uterus ...	...	8	1	9	130
10. Rheumatism, Diseases of the Bones, Joints, etc.	1	...	2	3	95
11. Diseases of the Skin, Cellular Tissue, etc.	...	2	1	3	12
12. Malformations	6	1	...	7	30
13. Premature Birth and Debility ...	35	2	...	37	209
14. Atrophy	23	1	11	35	201
15. Age	...	...	35	35	424
16. Sudden	7	3	1	11	79
17. Violence, Privation, Cold, and Intemperance	21	16	4	42	192
Causes not Specified	2	1	...	6	57

TO CORRESPONDENTS.

Dr. Budd's Lecture has been unavoidably deferred until next week.

[To the Editor of the Medical Times and Gazette.]

Sir,—I hold the Diploma of the Royal College of Surgeons of London *only*, and to-day I summoned a patient in the county court for the amount of my professional attendance and advice given in a case of relaxed uvula and enlarged tonsils, producing an irritative cough and inflammatory state of throat. I ordered a gargle and medicine, and described it in my evidence as a surgical case, which might have required the uvula being amputated, had not I succeeded in curing it by remedial means. The question raised by the defendant's attorney was, Is a relaxed uvula and enlarged tonsils a surgical or medical case? and brought forward a physician (of no repute, *entre nous*) to prove it; and, although I pointed out, that, by my diploma, I was authorised to "practise the art"—which I considered the manual or operative part—and also "the science of surgery"—which I looked upon to mean the prescribing those remedies which might prevent the necessity for an operation—and urged, on the score of humanity, it was in these days regarded the superior branch of our Profession, I was nonsuited; but allowed to move for a new hearing, as both myself and my solicitor were quite unprepared for that line of defence, and, consequently, had not summoned any medical gentlemen to speak to the fact, or got up the law on the subject. The judge relied upon a case of scarlet-fever, many years ago, where a M.R.C.S. claimed his bill because he had scarified, or lanced, the tonsil in the latter stage of the fever,—in my opinion a very different case to mine. Will you oblige me, in your notices to correspondents next Saturday, if you know of any cases bearing on the point, or what is your opinion of the legal point. It is not so much for recovering my account, as with a view of deciding the question what are to be considered surgical cases and what not? The rule laid down by the judge to-day appeared to be, that any case that could be treated by internal remedies was a medical one; and only those requiring an immediate operation surgical ones, hence limiting a pure surgeon's practice to a very small compass.

Hoping you will excuse this intrusion, I do myself the pleasure of enclosing my card, not wishing my name to be made public at present,

I am, &c. W. C.

[We fear that our correspondent will lose his cause.]

A Sufferer has undoubtedly much cause for complaint, but, unfortunately, we cannot advise him how to act. The law will certainly not justify him in placing his wife under control.

Mr. Fagg must excuse us from complying with his request. It is not our custom to make extracts from letters which have been published in other journals.

Mr. Craig's paper shall be inserted.

Norris Davey, Esq., Romford.—We are obliged to our Correspondent for his suggestion, which shall be attended to.

Mr. Edward Perry will find the information he requires in the last Edition of Gray's Supplement to the "London Pharmacopœia," edited by Mr. Redwood, and published by Renshaw.

Pater, Burnley, Lancashire.—Dr. Combe's work on Infancy is the best, and we believe the cheapest, work of the kind.

Medical Charges.

[To the Editor of the Medical Times and Gazette.]

Sir,—Will you do me the favour of answering the following question in this week's "Medical Times and Gazette." I am a general practitioner; have attended a patient, after whose illness I sent in the following bill:—"For Professional Attendance and Medicine, £5 12s. 6d." As the patient refuses to pay without he has a bill of particulars, can I compel him?

I am, &c. M.R.C.S. and L.S.A.

[We think our Correspondent must supply the particular items of his account.]

Mr. Nixon's letter shall be published next week; and we should feel obliged if the authorities of the London hospitals generally would furnish us with similar statistics of the number of cases received, compared with those terminating in death or recovery; and showing what proportion exists between the number of patients taken into or attended by hospitals, and the amount of the population.

Dr. Cattle will find the subject of his note discussed in one of our leading articles.

R. E. W.—We know of no objection to your sending your son to the Institution mentioned; but we should advise you to put him, for at least the first year, under the superintendence of a practitioner who might direct his studies, and at the same time keep a watch over his moral character.

"*A Claim Invalidated through Non-qualification.*"—Popham *v.* Jones.—In reference to this case, noticed in our Journal of last week, "Dr. Popham, of 9, Tonbridge-place, Euston-square," thus writes to the "Times":—"Sir,—In a report of a case, "Popham *v.* Jones," tried in the Court of Common Pleas, and published in the "Times" of the 25th of April, I perceived an error to which I did not at the time consider it necessary to advert; but, on discovering a very general misapprehension to which that misstatement has given rise, I hasten to beg that you will allow me space to correct it. I am reported as having lost the cause in consequence of not being a Licentiate of the Apothecaries' Hall Now, I beg to state—firstly, that the decision did not refer to me at all: and, secondly, that I am a Licentiate of the Institution referred to."

COMMUNICATIONS have been received from—

Dr. Budd, King's College Hospital; T. C. Shinkwin, Esq., Cork; A. F. Gooday, Esq., Newcastle, Staffordshire; Mr. Edward Perry, Burnley, Lancashire; Pater; Spence Bate, Esq., Mulgrave-place, Plymouth; John Ewins, Esq.; The Royal College of Physicians; Obstetaicus; Dr. Day, St. Andrew's, North Britain; The Pharmaceutical Society Blackall Marsack, Esq., Little Brickhill, Bucks; Wm. Craig, Esq., Ayr; W. C.; Mr. Fagg; Dr. Parkes, University College Hospital; Dr. Chuckerbutty, Calcutta; Dr. Cottle, Ryde, Isle of Wight; Dr. Fincham, Westminster Hospital; T. B. Kendrrine, Esq., Macclesfield; A. Thom Thomson, Esq., Cheadle, Cheshire; W. J. Nixon, Esq., London Hospital; R. E. W.; C.

ORIGINAL LECTURES.

LECTURES

ON THE

ORGANIC DISEASES AND FUNCTIONAL DISORDERS OF THE STOMACH.

By GEORGE BUDD, M.D., F.R.S.
Professor of Medicine in King's College, London.

Lecture III.

We have considered the effects of the inflammation of the stomach that arises from the irritation of food which the stomach cannot master, or from the excessive or untimely use of alcoholic drinks.

A higher degree of inflammation, brought on in the same way, is seen in persons who have swallowed some hard and insoluble substance, which lacerates and frets the mucous membrane, or some poison whose action on the membrane is corrosive. The immediate effects of this are pain in the stomach, with a sense of heat there, and occasional vomiting, the matters vomited being tinged with blood. If the injury done to the stomach be very great, or the pain be very severe, the heart's action is much depressed, as in severe forms of peritonitis; the pulse becomes small and rapid, the skin cold and clammy, and the countenance shrunk. When this state of depression passes away, a slight degree of fever comes on; but unless the inflammation of the stomach be excited by some agent which has become absorbed into the blood, and has thus affected other organs, the constitutional disturbance is but slight. Some years ago, a theory was promulgated, which ascribed the terrible constitutional disorder that exists in continued fever to inflammation of the mucous membrane of the stomach, or of the stomach and intestines; and, according to this theory, the different forms of continued fever were spoken of as gastritis and gastro-enteritis. In the most elaborate essay on typhoid fever yet published, the disease is designated "gastro-enteritis." But among the stores of medical literature are many remarkable cases, which show that simple inflammation of the stomach, however severe, does not, after the first shock of the injury has passed away, cause great nervous or constitutional disorder. The stomach—the common receptacle of all that is eaten and drunk, or, as Shakspeare terms it, "the storehouse and the shop of the whole body"—liable to receive a great number of substances which are mechanically or chemically irritating to it, and destined to exert its wonderful power imperceptibly, is so organised and in such relation to other parts of the system, that great and continuous irritation of its mucous membrane sometimes exists unattended by alarming constitutional disorder.

Perhaps the most striking instance on record of long-continued mechanical irritation of the stomach is that of the man who died in Guy's Hospital in 1809, from having swallowed a great number of clasp-knives. The case is so remarkable, and, with reference to the point we are considering, so instructive, that I have no fear that I shall weary you by detailing some of the particulars of it which were placed on record by Dr. Marcet, in the 12th Volume of the "Medico-Chirurgical Transactions."

In the month of June, 1799, John Cummings, an American sailor, about 23 years of age, being with his ship at Havre-de-Grace, witnessed, with some of his shipmates, the exploits of a mountebank, who was entertaining his audience by pretending to swallow clasped knives. Having returned on board, and one of the party having related to the ship's company the story of the knives, Cummings, after drinking freely, boasted that he could swallow knives as well as the Frenchman. He was taken on his word, and challenged to do it. Thus pressed, he took his own pocket-knife, which, on his trying to swallow it, "slipped down his throat with great ease, and, by the assistance of some drink, and the weight of the knife," was conveyed into his stomach. The spectators, however, were not satisfied with one experiment, and three knives more were immediately produced, which he swallowed in a few minutes.

The next morning, according to his own account, "nature worked him to a stool," which presented nothing extraordinary; at four o'clock the same afternoon he had another, and in it was one knife, which, however, was not the knife he had swallowed the first. The following day, he expelled, in the same manner, two knives at once, one of which was the knife he first swallowed. The fourth never came away, to his knowledge, and he never felt any inconvenience from it. After this performance, he thought no more of swallowing knives for nearly six years.

On the 13th of March, 1805, while in company at Boston, in America, he gave an account of his former exploit. His word being doubted, he told the company he was the same man still, and, if it was agreeable, that he would satisfy their curiosity. One small knife was presented to him, which he instantly swallowed. In the course of that evening he swallowed five more. The next morning, crowds of visiters came to see him; and, in the course of that day, he was induced to swallow eight knives more, making in all fourteen; "so that he had swallowed a knife for every day that the month was old." The next morning, the 15th, he was taken very ill, with constant vomiting and pain in his stomach; and was, in consequence, carried to Charleston Hospital, where, as he expresses it, "betwixt that period of time and the 28th following, he was safely delivered of his cargo."

The next day, the 29th, he sailed for France, where he quitted his vessel and embarked in another to return to America. But, on his passage to America, the vessel was taken by H.M.S. Isis, and sent to St. John's, Newfoundland, where she was condemned, while he himself was pressed and sent to England on board the Isis. One day, while at Spithead, where the ship lay some time, having got drunk and renewed the topic of his former follies, he was once more challenged to repeat the experiment, and again complied, "disdaining," as he said, "to be worse than his word." This took place on the 4th of December, 1805, and in the course of that night he swallowed five knives. The next morning, the ship's company having expressed a great desire to see him repeat the performance, he complied with his usual readiness, and "by the encouragement of the people and the assistance of good grog," he swallowed that day, as he distinctly recollects, nine clasped knives, some of which were very large; and he was afterwards assured, by the spectators, that he had swallowed four more, which, however, he declares he knew nothing about, being, no doubt, at this period of the business, too much intoxicated to have any recollection of what was passing. The greater part of the knives were nearly four inches long, and full one inch in their extreme breadth. On the following day, the 6th of December, he applied to Dr. Lara, the surgeon of the ship, complaining of excessive pain in the stomach and bowels, incapacity of retaining anything on the stomach, and severe pain in walking or standing erect. Castor oil was ordered to be given at intervals, with or without opium, according to the degree of pain and the urgency of the vomiting, which immediately occurred on his sitting up, or swallowing anything solid. Glysters of thick water gruel were also frequently injected.

In about a week from this time, the vomiting was less frequent, and the matter thrown up from the stomach was of a lateritious colour. The stools were black and thin. A trial of sulphuric acid was then made, and for a fortnight he took thirty or forty drops of the diluted acid four or five times a day, with tincture of opium at intervals, and a gentle laxative when costive. His diet during this time was sago, rice, tea, bread, cheese, and beef soup, most of which were retained. The matter ejected from the stomach had gradually acquired a darker colour, as if impregnated with iron or mixed with ink. The stools were as before described. *The pulse continued unaffected*, but he was evidently emaciated.

After the sulphuric acid had been thus tried, the muriated tincture of iron was prescribed, and Cummings took ten drops every four hours, daily increasing each dose by a drop, for a fortnight. No effect was produced except griping pains, which opium did not relieve so readily as before. His appetite continued good, except for animal food. Under these circumstances he was directed (having hitherto kept in bed) to sit up the whole of the day. For a few days, he always vomited on rising; but within a week this peculiarity ceased, and, afterwards, the vomiting seldom occurred oftener than three times in the twenty-four hours, and then mostly after taking tea or other liquid. Though these liquids were rejected a very few minutes after they were swallowed, the matter vomited had always the appearance of ink and

water. The exhibition of medicine was now suspended, except to obviate costiveness.

Towards the close of January, 1806, he was evidently more emaciated; yet he moved about, and at intervals performed the duty of a sweeper. There was but little further change in his condition until the 26th of the following April, when he complained of much pain and incessant vomiting. Opium, the warm bath, and laxatives were employed, but without any apparent advantage; yet at the end of May the vomiting was much less in quantity and in frequency, and the pain was relieved, being then felt only on his attempting to stand erect. His appearance had also improved, and he was discharged to such light duties as he could execute.

On the 6th of June, he brought to Dr. Lara the half of a horn handle of a knife, which he declared he had thrown off his stomach that morning, without any particular effort or attending pain.

Nearly five months now elapsed without any particular occurrence. He gathered strength and flesh, and ate voraciously, drank in proportion, and performed various easy duties in the ship; though, when questioned, he complained of pain when standing erect, and of occasional vomiting.

On the 8th of November, he passed, in two evacuations of the bowels, the blade, and half the horn handle of a knife. He then complained of much pain in the belly, which was relieved by a dose of castor-oil, combined with tincture of opium. The 12th of November he passed another portion of iron, but with much pain, which subsided when the iron was expelled. On the 30th of November, Cummings expressed himself as being easier than he had long been, though suffering from pain and vomiting at intervals. At this time Dr. Lara was removed from the Isis, and was succeeded, in his office of surgeon, by Mr. Peter Kelly, who wrote to Dr. Lara on the 23rd of January, 1807, stating, that Cummings continued much in the same condition, and that he had passed from the bowel, in the early part of the month, the iron portion of the handle of a knife.

In May, 1807, Dr. Lara received another communication from Mr. Kelly, informing him, that Cummings continued much as usual; that he had passed several pieces of iron, one of which had excited extreme pain, from its having lain transversely on the rectum; and that one piece, with a hook-like end, had been ejected from the stomach, with excruciating pain, and with hæmorrhage to the amount of two pounds of blood.

On the 12th of June, 1807, Cummings was discharged from the ship as incurable, and immediately went to London, where he became a patient of Dr. Babington, in Guy's Hospital. He was dismissed, after a few days, his story appearing altogether incredible, but was admitted again under Dr. Babington, in the month of August, his health during this interval having evidently become much worse. It appears, from the hospital records, that, on the 28th of October, he was discharged in an improved state.

In September, 1808, he applied at the hospital for the third time, and became a patient of Dr. Curry, under whose care he remained, gradually and miserably sinking till March, 1809, when he died in a state of extreme emaciation.

When the body was opened, after death, there existed, throughout the cavity of the abdomen, a blackish, ferruginous tinge, which was also observable in the hepatic system. On examining the intestines, one of the blades and one of the back springs were found, both so situated, that their expulsion from the body was impossible. The latter of these objects, which was about 4½ inches long, had transfixed the colon opposite the left kidney, and projected into the cavity of the abdomen; while the other was found stretching across the rectum, with one of its extremities fixed in the muscular parietes of the pelvis. It was observed, that, although the knives had thus perforated the intestines, no fæces had escaped into the peritoneal sac, and no active inflammation had taken place.

The stomach, viewed externally, bore evident marks of altered structure. It was opened in the presence of Sir A. Cooper and others, when a great many portions of blades, knife-springs, and handles were found in it, and were carefully collected for the museum of Guy's Hospital, in which they are now preserved. These fragments were between thirty and forty in number, and thirteen or fourteen of them were evidently the remains of blades, some of which were remarkably corroded, and greatly reduced in size, while others were in a state of tolerable preservation.

The following is the account given of the condition of the stomach by Sir A. Cooper: —

"The œsophagus, at its lower part, and the upper orifice of the stomach, were thicker than natural. The left extremity of the stomach, where the spleen adheres to it, had its usual texture; but the right was exceedingly thickened. The rugæ in the mucous membrane were unusually prominent; and there were granulated projections from the edges of the rugæ. This membrane was still slightly coloured by the steel. The pylorus was natural, but the duodenum had a greater thickness than natural."

In this instance, the mechanical irritation of the stomach, and the inflammation of the mucous membrane which it set up, caused severe pain in the stomach, frequent vomiting, and loss of flesh, but, from the first, seems not to have excited much fever, or any marked disturbance of the nervous system. The knives, as we have seen, were swallowed on the 5th and 6th of December, 1805, yet, notwithstanding that the chief part of them remained in the stomach, the man lived till March, 1809,—an interval of between three and four years. It is stated, that, towards the close of January, 1806,—that is, in less than two months after he swallowed the knives, Cummings moved about, and at intervals performed the duty of a sweeper; and that, in the course of the following autumn, though still having pain in the stomach when standing erect, and occasional vomiting, he gathered strength and flesh, ate and drank voraciously, and performed various easy duties in his ship.

Another case, which is historically interesting, and still instructive on the point before us, is that of the man who swallowed molten lead, during the fire which consumed the Eddystone Lighthouse, near Plymouth, in the winter of 1755. This man, Henry Hall, who was 91 years of age, but remarkably active for his time of life, had, with two other men, the charge of the Eddystone Lighthouse. About two o'clock on the morning of the 2nd of December, the fire which consumed the lighthouse broke out in the lantern. Hall, who was at the time the only man upon the watch, attempted to extinguish the fire, and, in order to reach it, had to throw water four yards higher than his head. As he was looking upwards, to see the direction and success of some water he had thrown, a quantity of molten lead fell in a torrent from the roof upon his head and face, and over his clothes, and part of it made its way through his shirt-collar, and very much burnt his neck and shoulders. From that moment he had a violent internal sensation, and imagined that a quantity of the lead had passed down his throat into his body. As the rage of the flames increased, he, with his companions, had to retire downwards, from room to room; and at ten o'clock, after the fire had been burning eight hours, some boatmen, who had come to their assistance, found them almost in a state of stupefaction, in a cave on the east side of the rock, to which they had retreated to avoid the falling of the timber, red-hot bolts, etc., upon them. The boatmen being unable, on account of the surf, to land upon the rock, threw a coil of small rope upon it. The lighthouse men laid hold of the rope, and having fastened it, one by one, round their waists, jumped into the sea, and were towed into the boat. They were immediately taken by sea to Stonehouse, near Plymouth, a distance of about fourteen miles, where Hall was attended by Dr. Spry. "He invariably told Dr. Spry (who constantly administered the proper remedies to such burns and hurts as could be perceived) that if he would do anything effectual towards his recovery he must relieve his stomach from the lead which he was sure was within him; and this he not only told Dr. Spry, but those about him, though in a very hoarse voice; and he also said the same thing to Mr. Jessop (the surveyor), who went to see him several times during his illness. The reality of the assertion seemed, however, then incredible to Dr. Spry, who could scarcely suppose it possible that any human being could exist after receiving melted lead into the stomach, much less that he should afterwards be able to bear towing through the sea from the rock, and also the fatigue and inconvenience from the length of time he was in getting on shore before any remedies could be applied. The man did not show any symptoms, however, of being either much worse or of amendment, till the 6th day after the accident, when he was thought to be better. He constantly took his medicines, and swallowed many things, both liquid and solid, till the 10th or 11th day, after which he suddenly grew worse; and on the 12th day, being

seized with cold sweats and spasms, he soon afterwards expired."

The following is the account given by Dr. Spry of the condition of the stomach:—

"Examining the body, and making an incision through the left abdomen, I found the diaphragmatic upper mouth of the stomach greatly inflamed and ulcerated, and the tunica in the lower part of the stomach burnt; and from the great cavity of it took out a great piece of lead," weighing 7 oz. 5 drs. 8 grs.

On the 19th December, 1755, Dr. Spry transmitted an account of the case to the Royal Society; "but that learned body thinking the circumstance very unlikely and extraordinary, and, doubting the truth of it, the reading of the paper was deferred until a further elucidation was received."

Dr. Spry, when his word was thus doubted, made various experiments on dogs and fowls, for the sake of re-establishing his character for veracity.

He poured molten lead, by means of a funnel, down the throat of a small dog, which had eaten nothing for twenty-four hours, and kept the dog afterwards without food or drink. The next day the dog was very brisk, and, on being killed, six drachms and one scruple of lead were found in its stomach. The stomach, Dr. Spry says, was much corrugated, but its internal coat was not excoriated.

In another experiment, he gave a large dog half a pint of milk, and very soon afterwards poured, in same way, molten lead down its throat. Very soon after swallowing the lead, the dog, according to Dr. Spry, ate freely of milk, as if nothing ailed him; and continued to do so daily for three days, when it was killed, being at the time very lively. Six ounces and two drachms of lead were taken from the stomach. "The pharynx and cardiac orifice of the stomach were a little inflamed and excoriated, but the œsophagus and stomach seemed in no manner affected."

Dr. Spry performed similar experiments on fowls with a like result.

Having transmitted to the President of the Royal Society an account of these experiments, and having offered further to establish, by the oaths of himself and others, the truth of the facts stated in his paper, the paper was read to the Society, and afterwards published in the Society's "Transactions."

A few years ago these experiments of Dr. Spry were confirmed by other experiments made in France by M. Bretonneau.

In one of M. Bretonneau's experiments, three ounces of boiling water were poured into the stomach of a young dog. The dog immediately uttered frightful cries, and vomited violently several times. The next day it appeared languid and oppressed, drank with avidity, but refused food. The third day convalescence commenced, and made progress up to the seventh day, when the dog was killed. The evening before its death, it caressed its master, and rolled at his feet in play. When the body was opened, the mucous membrane, the subjacent cellular tissue, and, over a large space, the muscular coat of the stomach, were found in a state of gangrene.

In another experiment, four dogs had, each of them, eight ounces of boiling water injected into the stomach in such a way as not to injure the œsophagus. Three days afterwards, they played together, and snatched from each other food that was thrown them; and one of them lined a bitch that was confined in the same place. They were then killed; and, in their stomachs, were marks of injury, like those observed in the former experiment.

Among the stores of medical literature, there are also many remarkable cases in which great destruction of the lining membrane of the stomach resulted from poisoning by the mineral acids; and in which, although life continued many days, or even weeks, after the acid was swallowed, no striking disorder of the intellect resulted.

Some years ago, an instance of this kind was brought under my notice by Mr. Miller, of King-street, St. James's, in which entire destruction of the lining membrane of the œsophagus, and charring of a small portion of the lining membrane of the stomach, resulted from swallowing sulphuric acid. In this instance, although a large portion of the lining membrane of the œsophagus, which is now in the museum of the College, was brought up entire, like the finger of a glove, the man lived many months, and at length died from the combined effects of stricture of the œsophagus and tuberculous disease of the lung.

In the *Medical Gazette* for September 11th, 1846, a very remarkable case of this kind is recorded, in which the patient lived twenty-three days after swallowing nitric acid, and in which the lining membrane of the stomach was found after death to be almost entirely destroyed.

Such cases may be classed with the cases I have before related; for the ill effects of strong mineral acids taken into the stomach are mainly due to their local action. The acid chars the tissue with which it comes in contact, coagulates the blood in its minute vessels, and, consequently, while it is sufficiently concentrated to have this chemical effect, although it may continue to permeate the tissues as it would permeate dead membranes, it does not become absorbed into the general mass of circulating blood.

Thus, when severe inflammation of the stomach results from direct local injury, whether this be caused by mere mechanical irritation, or by the action of heat or strong acids, severe local symptoms—commonly excruciating pain, and frequent vomiting—result; and, for a time, the heart's action may be much depressed; the depression which immediately follows the injury, or the exhaustion consequent on the inability to eat or digest, may, indeed, destroy life; but there is not, necessarily, any high degree of fever, or any serious disorder of the functions of the brain.

These cases confirm, then, the conclusion we had before arrived at, viz., that slight inflammation of the stomach, resulting from the irritation of undigested food, or from excessive or unseasonable indulgence in alcoholic drinks, or from the ill-advised use of irritating drugs, excites but little constitutional disorder, and, from the slightness of this disorder, and the power of rapid recovery which the stomach possesses, is but little heeded, and often overlooked.

[To be continued.]

ORIGINAL COMMUNICATIONS.

CASE OF TRAUMATIC TETANUS SUCCESSFULLY TREATED BY CHLOROFORM.

By FREDERICK J. LOWES, M.D.

On February 21st, I was summoned to a young man, residing about two miles from Gosport, who, I was informed, had met with a severe accident, from the explosion of a gun. On my arrival, I ascertained that, in getting through a hedge, he had placed the muzzle of the gun under his left arm, and a small branch had caught the trigger, when the contents were discharged in his arm. He had since been removed home, being very faint from hæmorrhage. On examination, I found that the charge had entered the inner side of the arm, producing a comminuted fracture of the humerus; and made its exit by lacerating the deltoid and triceps muscles, which were protruding beyond the integument. On passing my finger into the wound, I found the bone so much splintered, that I feared I should be obliged to amputate at the shoulder-joint; and the hæmorrhage was likewise increased, though I ascertained that the brachial artery was not wounded. I therefore sent for my friend, Dr. M'Kechnie, of Haslar Hospital, to consult as to the propriety of the operation. On his arrival, I made a further exploration with my finger, and discovered that, in all probability, I should be able to save nearly three inches of bone; and we agreed that such would be the proper course to pursue. Dr. M'Kechnie then placed him under the influence of chloroform; and, while I made an anterior and posterior flap, he compressed the artery, and reflected the flaps. I found, on sawing the bone, that quite three inches of it remained unsplintered; and, having secured the brachial artery, and one small branch, I brought the edges of the wound together by sutures; and, having placed him in bed, and administered an opiate, I left my pupil to watch him for two or three hours till my return. The patient went on favourably; and, on the fourth day, the dressings were removed, when the wound looked healthy, though the suppuration was very extensive. I ordered a mutton chop and some porter every day, and gave him an opiate almost every night, he being unable to sleep whenever it was omitted. He continued to improve till the nineteenth day, when his mother imprudently allowed him to eat a quantity of cake; and, in the evening, he was attacked with delirium, but slept well after midnight. On

the day following, suppuration had nearly ceased, the granulations looked healthy, and the wound was healing rapidly; but he was suddenly seized with violent trembling during the process of dressing the wounds, and, the day following, felt some pain in the neck, which he thought was rheumatism. Two days afterwards, he mentioned it to me, and said, at the same time, that he felt some difficulty in opening his jaws. I immediately administered a strong purgative, as well as a draught containing one drachm of tincture of opium. At one o'clock p.m., a message was brought me that he was dying. I found that he had had several attacks of violent spasm, attended by a feeling of suffocation; viscid mucus was issuing from his mouth, and he was bathed in cold perspiration. I immediately removed the dressings, and applied a bread-and-water poultice to the stump, and then placed him under the influence of chloroform, likewise rubbing it down the spine, on the epigastrium, throat, and over the regions of the temporal and masseter muscles. This relieved him from the violence of the spasm, and he was able to open his mouth to the extent of nearly half an inch, when I administered half a drachm of the tincture of Indian hemp, made after the formula of Dr. O'Shaughnessy. The stomach instantly rejected this, when I gave him one drachm of Battley's solution of opium, in some sherry wine, and, an hour afterwards, once more placed him under the influence of chloroform, and ordered him an enema of castor-oil and turpentine, desiring that his legs and abdomen might be rubbed with turpentine. On my visit in the evening, I found the bowels had been relieved; but he had been unable to take any food, and the spasms had been very severe, causing him frequently to bite his tongue, which was not, however, much coated. I once more placed him under the influence of chloroform, and applied it externally as before; and once more tried the Indian hemp, which his stomach rejected again directly. I therefore gave him half a drachm of the liq. opii in wine, and left two doses to be administered during the night, at intervals of four hours. The following day (March 17th) I saw him at seven a.m. Has had a restless night, dosing at times; but the spasms followed in such quick succession, as to be constantly waking him. I placed him again under the influence of chloroform, and ordered him an embrocation, consisting of chloroform, extract of belladonna, and soap liniment, to be rubbed on the spine, throat, chest, and abdomen, several times a day, and repeat the liq. opii. Two p.m.—Has had several spasms, dosing in the intervals. Put him under the influence of chloroform, after which the jaws were separated about half an inch. Gave him beef-tea with a spoon. Ordered him an enema, composed of beef-tea, with castor-oil and turpentine, and the following pills.

℞ Camph. gr. xij.; morph. acet., gr. ij.; quinæ disulph., gr. viij.; ext. hyoscyam., q. s. Ft. pil. viij.

Sumat unam tertiâ horâ quâque.

Nine p.m.—Spasms rather less; placed him again under the influence of chloroform; much difficulty in swallowing the beef-tea; bowels slightly open; gave him some wine.

18th.—Seven a.m.—Passed a better night; spasms rather less. Continue beef-tea, wine, and pills. In the afternoon, found the spasms more violent; was perfectly rigid, in a state of opisthotonos; cold perspiration. Put him under the influence of chloroform, when he was again enabled to swallow his beef-tea. Nine p.m.—Rather less spasm, but violent cramp in the muscles of the leg, and painful stiffness in the back.

19th.—Had a restless night, but with less spasm. Continue the embrocation and pills, also beef-tea and wine at intervals. One p.m.—Feels very exhausted; spasms frequent. Nine p.m.—Cramp in the legs increased; the abdominal muscles perfectly hard.

20th.—Has had a better night; able to take the beef-tea and wine; has some appetite. Continue camphor, pills, and embrocation. Bowels confined.

℞ Olei crotonis, gtt. j.; ext. colocynth. comp., gr. x. Ft. pil. ij. Statim sumend.

21st.—Bowels well open; less spasm; has eaten some toast. Continue the medicine, beef-tea, and wine.

22nd.—Much better, but bowels confined. Repeat the pills with croton oil. Continue the other medicines.

23rd.—Has had a restless night, with slight spasm; stiffness of back and jaws remains; bowels well open.

He continued to improve up to the 29th of March, when he only complained of painful stiffness of his muscles, the spasmodic action having ceased, when he was allowed to sit up. He discontinued the camphor and morphia pills, excepting at night. The bowels were kept open by an occasional purgative. Mutton diet.

April 3.—All pain and stiffness had left him. Ordered him to go out the following day.

7th.—He was out walking when I called, quite well, and the stump healed.

In this case I believe the chloroform to have been the most effective agent, as the spasmodic action was always lessened after its application. The Indian hemp did not appear to succeed, as it always induced vomiting. The patient derived much benefit from the croton-oil purging, and the nervous irritability seemed to be allayed by the combination of the morphia, quinine, and camphor. His pulse was not much affected by the disease, excepting during the paroxysms, and he had no difficulty in voiding his urine. The ligatures came away on the twenty-third day. I found it necessary frequently to visit this case, to see that my orders were carried out; and my best thanks are due to Dr. M'Kechnie, to whom I am much indebted for his kind and able assistance. I was induced principally to use the chloroform, owing to a case of chorea of three months' standing, which came under my care about a twelvemonth since, being cured by it. The patient was a boy, about ten years of age, who was never at rest, day or night, from the constant twitchings of his muscles, and, at last, lost all power in the lower extremities, so that I feared some lesion of the cerebro-spinal system had taken place; and, as all the usual remedies had been tried unsuccessfully, I determined to use chloroform; when, after applying it about three times a week to the spine and epigastrium for about a fortnight, the boy got perfectly well, and has had no relapse.

Gosport.

PLACENTAL PRESENTATION.

EXTRACTION OF PLACENTA BEFORE THE EXPULSION OF THE CHILD.

By EDWARD D. HACON, Esq.

Mrs. A. engaged me in November last to attend her in her fifth confinement in the following January. She had never suffered anything untoward in previous pregnancies. For two months she had suffered from hæmorrhage recurring about every fortnight, by which she was much blanched.

On December 15, flooding came on to such an extent as to produce extreme faintness, without any indication of labour. The os uteri could not be reached on examination. Two scruples of secale were administered every hour for the purpose of inducing labour-pains. The hæmorrhage abated after the first dose, and after the lapse of five hours slight labour-pains came on. By introducing the hand into the vagina the os uteri was reached, and found flaccid, but the presentation could not be ascertained. Although the ergot was continued, the pains lasted but a few hours; and on their cessation, as the hæmorrhage had ceased, the secale was discontinued when six drachms of the powder had been taken. Under the use of stimulants, the patient rallied considerably in the evening.

Dec. 16.—No hæmorrhage. On placing the hand upon the abdomen, the uterus could be felt as though firmly contracted. There was no variation until the 18th, when the uterus seemed more relaxed, and the fœtus could be felt through the parietes of the abdomen; and on the 19th there was another attack of hæmorrhage without pain, at 8 a.m., which ceased on the administration of ergot, but recurred in the night upon its discontinuance. The patient was much exhausted on the 20th, and the os uteri, although much lower, was not sufficiently dilated to ascertain the presentation. The hæmorrhage was arrested, as before, by the ergot.

Dec. 21.—About 2 o'clock a.m., a discharge of bloody serum occurred in such quantity as to be attributed by the nurse to rupture of the membranes. Active labour pains immediately supervened, but I was not sent for until half-past eight. There was no hæmorrhage, and the pulse was good. On examination, the os was found dilated to a diameter of two inches, and the placenta presenting; but the head of the child could be distinctly felt through it.

In consultation with my partner, Mr. Francis Toulmin, it was agreed, that as no margin of the placenta could be

traced, its presentation was complete, and that, in the exhausted state of the patient, it would be better to remove the placenta entire, as soon as the os uteri was sufficiently dilated to admit the hand, than to run the risk of further hæmorrhage while tearing through the placenta, or endeavouring to discover its edge, in order to deliver by turning the child.

The pains soon became more active, and I was enabled to introduce my hand into the uterus. I found the placenta already separated anteriorly, and also laterally, but adherent towards the sacrum; its separation was easily and quickly effected, with only slight hæmorrhage; and it was immediately withdrawn. The appearance of the placenta was most unusual, being very pale, and covering double its normal superficies, and proportionately thin, especially at the circumference; a small portion was found to have been torn off and left in the uterus. A still-born child was expelled in a quarter of an hour after the extraction of the placenta. The membranes and the small portion of the placenta came away on the following day. With the exception of a slight attack of fever the patient made a good recovery.

In this case the value of repeated doses of ergot in arresting the hæmorrhage even in complete placental presentations, is, I think, well shown, the continued contraction of the uterus keeping the head of the child firmly pressed upon the placenta.

Hackney.

ON THE CURE OF GLEET AND OBSTINATE GONORRHŒA.

By JOHN L. MILTON.

The following paper was partly drawn up as an answer to numerous letters on the subject with which I have been favoured by gentlemen in a great measure unknown to me. Being unable to reply to all of these by letter at such length as they merited, I chose the following plan, as better calculated to convey a systematic and full reply to the questions put, and also to enable me to touch upon some points and allude to some precautions, not noticed in my first contribution on gleet.

Another reason was, my wish to bring this subject once more before the notice of the Profession; and here I am but imitating the example of many great surgeons, whom experience has taught, that the only way to break in successfully upon established rules of treatment is to renew the attack till a practicable breach is stormed.

Gleet has been divided and subdivided into many varieties —rheumatic, gouty, scrofulous, dependent on an atonic or varicose state of the vessels, arising from induration or ulceration of the urethra; (a) and in a systematic work on this subject these divisions may no doubt be adopted with great advantage; but in a paper professing solely to treat of means of cure, it will, I think, suffice to consider gleet under the head of

a Gleet dependent on structural change in the urethra or incipient stricture;

b Gleet not dependent on this state, or in which this state is not recognizable;

c Gleet arising from a disordered or diseased state of other structures, as the testicle, prostate gland, etc.

When a case of gleet comes under treatment, and nothing is found to raise any suspicion of stricture, I should in all cases be disposed to try injections of nitrate of silver, rising gradually in strength every day, so as always to produce a slight sensation of heat in the urethra. I have never found it necessary to use them weaker than gr. i., or stronger than gr. x. to ℥j.

But to do this properly, the pipe of the syringe must be at least two inches long. When a syringe of this length is used, it will often be found that the tip encounters very sensitive spots, especially on the lower surface of the urethra. According to my experience, so long as these persist the gleet will not give way.

Along with an injection of this strength, such a dose of rhubarb and potass. acetas may be given every morning before breakfast as will act twice a-day on the bowels. The less medicine, however, the better; patients with obstinate gleet are generally tired of it, and will rather allow the disease to run on than again go through the routine of pills, mixtures, draughts, etc.

In many cases this treatment produces immediate and permanent relief; in some the relief is only temporary, and the complaint soon begins to return; in others, very little change seems to be effected.

In the two latter classes of cases, if there be, at the end of eight or ten days, really no fair prospect of a cure, the urethra may at once be sounded. If a stricture should be found, it is needless to say, that we must have recourse to the bougie, and that the case ceases to be one of pure gleet.

There is a state, apparently stricture in the incipient stage; it might be called the granular urethra:—The canal feels rough, and, in some places, slightly narrowed. There is pain on passing the instrument, and an obstinate purulent discharge never entirely absent. Blistering seems to be of little avail; caustic seems to have little control over these cases; and the only remedy I know of is, the persevering use of the bougie. But if only pure gleet, sometimes mucous, sometimes purulent, be met with, it will, in almost every case, yield to a blister; very rarely does it ever require a second. Blistering is, I may now safely say, the safest, quickest, and most efficacious remedy of all that have ever been proposed. Those who have had numbers of these cases under their hands, and felt the constant disappointment which the use of every other remedy brings with it, will soon appreciate its value.

I have heard it condemned, as a violent, painful, unpleasant remedy. I deny it. Apart from the fact, that it is neither so violent nor so painful as many other remedies which have been employed, (though this would not be saying much for it,) it is not so unpleasant as many remedies which very good surgeons constantly employ, such as cauterising the urethra, a remedy laid down on high authority; and, what is more, I deny that, with ordinary care, and in ordinary cases, it is either very violent or very unpleasant.

I appeal to the results of experience, to the fact, that, while it has never failed in a case of gleet uncomplicated with change in the urethra, it has never, in any case, produced any disagreeable results, except a few boils. I appeal to the fact, that patients cured by it, of gonorrhœa and gleet in all stages, have, on being a second time infected, of their own accord, blistered themselves or come to me a second time to be blistered.

Why should surgeons hesitate to blister in gleet? They do not hesitate to blister the vicinity of the eye, the face itself. Parts of the frame equally as tender, are constantly blistered as a matter of course: why not the vicinity of a gleet?

Why should it not cure gleet? Does any remedy act so efficacious in many chronic discharges? Why should not gleet yield to it? Has it ever seriously entered the head of any one in the habit of observing, to dispute its value in these cases? Then why here?

After this peroration, let us come to the employment of it. For the mode of applying the blister, let me refer the reader to my paper in the *Medical Times*.(a)

For three or four days after the application of the blister, the quieter the patient is the better. So soon, however, as the blistered surface begins to heal up, a few mild injections may be given. The best kind have always appeared to me to be those of sulphate of zinc in the following form:—

℞ Zinc. sulph. gr. x. ad ℈j; sp. camph. ♏. xx.; aquæ destil. ℥j. A teaspoonful to be used three times a day.

Here, as in every stage of gonorrhœa, the bowels should be kept gently open; the diet should be light; quiet and abstinence enforced. Under this treatment, a cure is frequently effected in six days from the first employment of a blister, often in less, and occasionally, in some long-standing cases requiring a second blister, it has extended over a fortnight.

The cleanest, most painless, and most certain plan of blistering seems to be that with Mr. Brown's blistering tissue. This chemist has also invented a dressing tissue which is extremely cleanly and convenient. It is highly desirable, that some such process should be extended to the oxide of zinc. What a step in the right direction since the days of Cirillo's filthy and painful blistering ointment of corrosive sublimate!

Now and then it will happen, that the patient is mortified and surprised to find the discharge re-appearing at the very

(a) Mr. Gay proposes also a constitutional form.

(a) 1851. Vol. II., p. 302.

moment he thought all gone. Thus, on the third day, there may be no discharge, and on the fourth there is a good deal. But this generally subsides as rapidly as it appeared, if the patient will only be quiet, and abstain from tampering with it.

Whatever means be adopted, the complete extinction of the disease must be made a *sine quâ non*. From the time of Jesse Foot,—perhaps earlier,—it has been an admitted fact, but not always acted on, that the cure, to be permanent, must be complete, before the surgeon remits the least in his exertions.

Finally, I may state, that, in some obstinate cases of leucorrhœa, I have used blisters with great success, but my observations are not yet sufficiently complete.

And now let me cite a few cases; I give them more at length than in the former paper. In the infancy of this treatment I trusted to rough notes, and published my views on this subject with more hesitation than ever I felt respecting anything of this kind. But the complete success it has met with has induced me to enlarge, and take more copious histories of cases.

As many patients, however, object to their names or even initials being published, and as I have always wished to use the greatest secresy in everything relating to cases of this nature, I have used a series of letters; thus, the pictures are taken from life, but I have thrown a veil over the countenance, that the identity of the individual might not be recognised.

Case I.—LONG-STANDING GONORRHŒA.—RELIEF.—RELAPSE (?)

Mr. A. applied to me early in October, 1850. He had at this time had gleet for twelve years. No stricture could be detected. No part of the urethra seemed more tender than the others. There was a free purulent discharge; the urine was cloudy and contained a good deal of mucus. His health was disturbed, and his bowels were costive. He had been under the care of various surgeons, and had tried numerous remedies; among others, about 5*l*.-worth of Holloway's pills, more to the profit of the quack than himself.

As he lived at a considerable distance, and could only occasionally come to London, I recommended zinc injections, mild aperients, and the local application of cold sea water. After this, rhubarb was tried, first with acetate and then with sulphate of potass. Not being satisfied with his progress, I requested a further opinion on the case. Dec. pareira brava and dil. nitric acid were advised, and effected considerable improvement. But the purulent discharge, the seat of which seemed to be the posterior part of the urethra, did not give way, and on the 9th of January, 1851, a blister was applied to the perinæum. Owing to its not being used properly, but little vesication ensued, and a second was applied on the 22nd. The decoct. par. brav. with the acid was resumed, and rhubarb and blue pills were ordered, to keep the bowels open. The blistered surface was dressed with the blue ointment and morphia, and, after it had healed, frictions of blue ointment and camphor were ordered to the perinæum. A sensible effect was now produced; the discharge began to disappear. Afterwards, in the hope of effecting a complete cure, another blister was applied, (April 4th,) but this time to the penis. Bicarb. of potass and decoct. uvæ ursi were given three times a day, and pills of turpentine and strychnia were ordered at night.

I did not see him again till the autumn, and the discharge had remained stationary. A blister was, therefore, applied to the perinæum; but such a number of boils followed that he suffered from some weeks under them. Soon after this I again saw him. At this time there was nothing but a drop of mucus at the extremity of the urethra, and he now gave up all treatment, being apparently cured. But lately he wrote to say that he had suffered from an abscess in the perinæum, and that there was now a discharge from the urethra. He promised, however, so soon as he had an opportunity, to come up to London, and communicate the subsequent history of his case.

Case 2.—OBSTINATE GONORRHŒA.—CURE.

Mr. B. applied to me March 14, 1851, with an obstinate gonorrhœa, which he had had some time. His health was out of order, and he suffered from headache and dyspepsia, with pain in the back.

A mild injection of nitrate of silver was given each day. Rhubarb, sulphate of potass, and calumba in powders every morning, and dilute nitric acid with tincture of cinchona in water. A day or two after a plaster of soap and opium was applied to the back, to relieve the constant gnawing pain.

By the 24th his condition was not much improved, and the acetate of potass. was ordered, in combination with rhubarb. In two days the mouth began to cleanse; and, by the 31st, the foul taste, constipation, and headache had disappeared. All this, however, produced but little change in the disease; the strength of the injections was gradually carried up to gr. x. to ʒi., without at any time producing any other effect than a slight tingling. He would not use an injection himself.

On the 2nd of April, he was sounded, to see if there were any stricture; but a large bougie passed with ease to the bladder, and the urethra seemed in no way very sensitive. In the mean time, his health slowly improved; he looked and felt better; his eye grew brighter, and his skin clearer; but his bowels were very sluggish.

Pain near the frænum on making water now came on, and got steadily worse. Erections also troubled him, but were soon checked by the use of spirit of camphor. The bowels remaining costive, the dose of rhubarb was increased; it had the desired effect, but he complained of its leaving a foul taste in his mouth, to which, however, I paid little attention, as his general health continued to improve.

On the 5th, the discharge had been thinner for a day or two, but very abundant; and, as the nitrate of silver seemed productive of very little benefit, the sulphate of copper (gr. iii. to ʒi.) was tried. It gave him more pain than the nitrate; but as this was not severe, I gradually went on raising it. In the meantime he took his medicine regularly, and on the 10th began himself to use a mild injection of sulphate of zinc. Dull aching pains in the penis prevented him from sleeping; they were, however, removed in a night or two by morphia and hot baths.

By the 15th, he seemed cured; and, his bowels being freely opened, the rhubarb was omitted. The discharge now came back, having only been absent two days. Jalap was added to the pot. acet., and turpentine was given with tannin in pills. The sulphate of copper injection was continued, but the discharge still returned. The caustic plug was now tried, without success. The pain near the frænum never went away, although a small caustic issue was made on the corresponding point of skin.

On the 28th, I ordered a blister to the penis, and a mild aperient.

On the 1st of May, he came again. He had kept on the blister four hours; it had risen very freely, and was now healing up. The urethral discharge was in much the same state as when I last saw him; the orifice was tumid and weeping. I only ordered him to use a mild injection of sulphate of zinc, and repeat his aperient draught. When I saw him two days later, he seemed thoroughly cured; and, on the 7th, I showed the case to Mr. Gay, who seemed highly pleased with it.

The cure proved complete. Some months after, he called to say the discharge had broken out again within the last few days. On opening the orifice of the urethra, the mystery was explained,—there was a small recent chancre in full bloom.

Case 3.—OBSTINATE GONORRHŒA.—RELIEF.—INCIPIENT STRICTURE.—TREATMENT INTERRUPTED.

Mr. C—— applied to me, June 1, 1851, with a severe gonorrhœa, which he had been labouring under fully nine months. When first attacked with it, he applied to a gentleman at the west-end, whose name is a guarantee that all possible attention and skill was given to the case. The patient, being in delicate health, was most anxious to be well; and, having his time at command, confined himself closely to his room, and strictly followed up the treatment laid down by his surgeon, which consisted principally of copaiba and injections. An abscess formed in the perinæum, and required leeches and antiphlogistic treatment before it could be subdued. He slowly recovered, and went into the country, his health being very much impaired.

Change of scene and air produced their wonted effects; the traces of the abscess gradually disappeared, and a vigorous attempt was made, by means of cubebs and copaiba, to check the gonorrhœa, till at last he grew fairly tired, and left the disease to wear itself out.

But finding this was in no way likely to ensue, he came to me, as I have stated, about nine months after the first

commencement of his illness. There was at this time a thick purulent discharge, but no painful spots could be detected in the urethra, nor was there any pain on erection. He could, he said, for that matter, tie the penis in a knot if it were long enough, and he totally repudiated the idea of any stricture. In fact, on seeing him make water, there did not seem to be any reason for thinking this was the case, the stream being large and round; there was, however, that inverted appearance of the lips of the urethra which some surgeons have considered a distinctive mark of stricture. He would not allow me to pass a bougie, and, accordingly, the treatment of the gonorrhœa was begun with by daily injections of nitrate of silver, of sulphate of zinc to use at home, and a mixture of potass. acet., spir. ether nit., and pulv. rhei.

The injections of nitrate of silver were gradually strengthened, but they effected no great improvement; on the contrary, though the discharge diminished till only a little bloody serum issued, a fixed pain in the urethra, near the anterior edge of the scrotum, set in. Caustic was applied to this with Lallemand's instrument, but only made the pain worse. A bougie was twice tried, Nos. 6 and 7, passed to the bladder, some resistance being met with; but such pain and faintness were induced, that he urgently begged to be spared a repetition of the process. As he was always averse to blistering, copaiba and cubebs were tried separately and in combination, with no better result. Injections over the first four inches of the urethra were also tried with nitrate of silver, sulphate of zinc, and sulphate of copper.

Early in August, the caustic plug was tried, with the effect of checking the discharge to a great extent. The fixed pain in the urethra continuing, a caustic issue was made under the spot, and dressed with the ointment and morphia.

At the expiration of three months and a-half, the patient at last allowed the penis to be blistered; this, like the other remedies, had the effect of checking the discharge. Copaiba and cubebs, with turpentine pills, were again resorted to, and still no prospect of a cure. A second and third blister were tried, and then one to the perinæum. This last was, however, followed by several boils, which gave him great annoyance. By the persevering use of the liquor potassæ, aided by light diet and occasional change of air, the boils were soon got under. The blisters had by this time effected considerable improvement, but still some discharge remained; the pain on erection was nearly gone, but his bowels, always costive, now resisted the largest doses of calomel, jalap, senna, &c., and his health, never very strong, threatened to give way. I therefore represented to him, that it was absolutely necessary to have the urethra properly sounded, as treatment had made so little impression on the disease.

After several attempts, each of which was followed by severe fainting and prostration, I succeeded in getting down a bougie. The spot near the anterior edge of the scrotum was still tender; and on reaching the vicinity of the abscess in the perinæum, about five inches down, the urethra was found considerably narrowed for about an inch of its length, so that nothing larger than a No. 5 would pass; this was gradually dilated for about sixteen days; but having to go into the country, and being now hopeless of success, he resolved to give nature a chance of curing what art had done so ittle for.

This, however, proved ineffectual. When I last saw him, he told me some discharge still continued; he had, however, grown much stouter, and thought his drenching had done him some good. Had the stricture been cured at first it is probable a single blister would have spared him all this fruitless penance.

Case 4.—GLEET COMPLICATED WITH SWOLLEN TESTICLE AND STRUCTURAL CHANGE IN THE URETHRA.—RELIEF.

Mr. D—— applied to me, August 11, 1851, with an old but slight purulent discharge, which had tormented him for two years. After a few days' attendance, he was compelled to leave London, and some weeks after, finding himself still ill, went to a surgeon in the country, who treated him with copaiba, without injections. In the third week of November swollen testicle came on, which was treated with leeches, rest in bed, purgatives, etc. In about a fortnight he came back to London, and the day after his arrival placed himself under my care.

There was still some purulent running, and the testicle was large and hard. I suspected stricture, but he would not allow the bougie to be passed. Iodide of potass and rhubarb were given, and frictions of blue ointment to the testicle ordered, with very mild injections; but as, at the lapse of a fortnight, the testicle still remained very hard and swollen, it and the penis were blistered together. This effected a considerable change, the running gave way, and the testicle so far diminished, that in a few days nothing remained except a hard knot in the lower part of the epididymis. The other testicle now began to swell, and this was accompanied by a return of the gleet. He refused to have another blister to the penis, or to allow the urethra to be examined. Injections low down were then tried perseveringly for three weeks, and one or two sensitive spots in the anterior part of the urethra were touched with Lallemand's instrument. At last, he allowed me to introduce a bougie. There was a rough, granular state of the passage, with a distinct narrowing, about an inch in length, commencing about five inches down. This was soon relieved by a course of bougies, and he left with the testicles just well, and the running diminished to a point of mucus, generally visible only in the morning. Here a second blister would probably have effected a cure.

Case 5.—GONORRHŒA, FOLLOWED BY STRICTURE.—CURE.

Mr. E—— applied to me October 4, 1851, with gleet, of which he gave the following account:—It was of about fourteen months' duration, and had been in the beginning well and actively treated by his surgeon; but he gave up attending before he was completely cured, having still a slight gleet, which it was thought would die away.

Soon after this he contracted chancres, which were cured by a course of mercury, and the treatment of the gleet, which still hung about him, was once more begun. Finding it resist the usual treatment, the surgeon examined the urethra, and detected a stricture, which gave way under bougies. The gleet, however, soon re-appeared, and tormented him by coming on every time he had connexion, drank a glass of wine, or even took unusual exercise.

In this state he applied to me. There was at this time only a free mucous discharge, but this, he said, every now and then became purulent. I passed a large bougie, but found no stricture. The next day there was a free discharge of pus, which, he informed me, always ensued after this process. For eight or ten days, injections of nitrate of silver were duly tried, coupled with the use of the acetate of potass., pulv. rhei., and sp. ætheris nit.; but these having failed, a blister was applied with good effect.

At the end of ten days, no purulent discharge having been seen, I was still unable to allay his apprehensions of a return, which were partly kept up by the unusually free secretion of mucus, and therefore applied another blister which completed the cure. He accurately collected, for a fortnight, all the discharge which appeared, and which now diminished from day to day. On examination, it was found to contain no pus corpuscles. I accordingly considered him quite cured, and have reason to know that he remained so.

Case 6.—GONORRHŒA COMPLICATED WITH STRICTURE.—CURE.

Mr. F. applied to me on November 8th, 1851, with gonorrhœa, complicated with stricture. It appeared that the latter had come on quite suddenly, in consequence of gonorrhœa, under which he had been labouring some little time, and which he had been trying to cure with salts, zinc injections, etc. The day previous to his visit, complete retention of the urine had set in, and he had gone to a surgeon, who, after some trouble, drew off the urine. It required all possible perseverance on my part to get even a small catheter into the bladder; the muriated tincture of iron was then given, and the next day the catheter was employed, as also on the 11th; hot fomentations were at the same time used, and the bowels were kept open. After this, caustic was applied almost daily to the stricture, under which it gave way; and the treatment of the gonorrhœa, which still continued, was begun with. At the end of thirty days, some purulent matter was still secreted; and, as he was extremely anxious to be well, I applied the blistering tissue to the penis. This at once arrested the discharge, and no more of it was seen; though he had such a dread of its recurrence, that he gladly came from time to time to satisfy himself that all was going on well.

From all I could learn, this was a real gonorrhœa; he never before noticed any narrowing of the stream of urine; he was quite young; the occlusion came on very suddenly, and was, perhaps, in some measure, occasioned by his having been in the habit of violently distending the urethra with injections.

In a practice where many cases of this kind are brought for consultation, there is sure to be a pretty good supply of material for forming a paper. But the pressure of other engagements compels me to leave the histories of several untouched; and I must request my readers indulgently to look upon this as a first instalment, which I hope at some future date to be able to make up.

40, Jewin-street, City.

TRACHEOTOMY IN A CASE OF CROUP SUCCESSFUL.

By WILLIAM CRAIG, Esq.

The subject of the following case was Master William A., aged 7. He is of a delicate and somewhat irritable constitution, and has had enlarged tonsils since he was three years of age. The enlargement of the tonsils has not been uniform, but liable to variations in size, from occasional exposures to cold. The frequent application of a weak solution of nit. argent. had only a partially beneficial effect, as the tonsils always continued less or more swollen.

To invigorate his constitution, and improve the affection of the throat, he was brought from Glasgow to the coast, to obtain the benefit of the sea air. I saw the little patient for the first time on the 23rd of March. I then found the tonsils more than usually red, and pretty much swollen, and, on the most projecting part, they were partially ulcerated. I touched the ulcerated portion of the tonsils lightly with nit. argent., and recommended counter-irritation around the neck.

On entering his room on the following day, the first sound that met my ear was the well-known ringing cough of croup. My little patient was immediately subjected to the most rigid antiphlogistic treatment. Emetics and purgatives were freely administered, warm salt placed round the throat, and leeches applied during the first day of these croupy symptoms. On the second day, no improvement being apparent, the emetics were given in more decided doses; but their effects were more depressing than emetic. Besides antimony, ipecacuanha and sulphate of zinc were perseveringly administered by anxious and trustworthy attendants. Calomel was also given in repeated doses, accompanied by mercurial frictions, but without any specific or beneficial effect. A blister was also applied to the side of the neck. Notwithstanding all these measures, the disease progressed to the full developed stage. On the fourth day of the disease, the emetics and other measures were continued, without the slightest melioration of the symptoms, as every repeated paroxysm returned with aggravated violence, and threatened immediate suffocation. I had had a dread from the first that the case might come to this extremity, and had resolved—and had had the concurrence of Dr. Paterson, from Glasgow, in the propriety of my resolution—to give my patient the benefit of tracheotomy as a *dernier ressort*. Dr. Whiteside, of this town, was also of opinion that my patient should have the chance of the operation; and he assisted me in the performance of it. The boy was seated on the knee of an assistant. A free incision of fully two inches in length was then made, without losing a drachm of blood; and every drop was removed before opening the trachea. It was opened to the extent of an inch fully, and the incision was at the same time carried through the false membrane. Immediately on the opening being made, the membrane was seen vibrating in the trachea, and a violent expiratory effort caused a large portion of it to be forced out; and the patient was immediately and completely relieved. The larger portion of the membrane thus ejected was about two inches in length, and, at its greatest breadth, was fully an inch and a quarter. There were two small fragments thrown out at the same time, which, when added to the largest piece, made it of a uniform length and width. It was fully a line in thickness, and, in tenacity, it somewhat resembled that of an orange skin.

For a number of hours after the operation, there was little cough and no expectoration; but there was a considerable discharge for some time after this, without any bronchial or other pulmonary irritation which could be discovered to account for it. The discharge might, in my opinion, be supplied for the most part by the solution of that portion of the membrane which lined the trachea between the glottis and the opening. On the third day after the operation, the tube was found more than usually obstructed; and, on removing it, a portion of thin, membranous matter was flapping in the wound. Part of this was forced out by the expiratory efforts; and another portion adhered so firmly, that some force was necessary to separate it from the attachment it had with the inner surface of the trachea above the wound. This was evidently that portion of the false membrane which filled the trachea between the glottis and the upper part of the wound. A portion of it had a distinct tubular form; but it was remarkably attenuated, having rapidly dissolved after the opening through the trachea had been effected. In the course of eight days after the operation, the natural air passage had become so clear, that the tube was removed, and the respiration was established in its natural course. There was a partial return of the croupy cough on the 22nd of April; but it became speedily better, and he has since continued to progress most satisfactorily, and is now nearly well, and the wound in the neck is now cicatrised. There was some suspicion that this attack was connected with scarlatina, as a younger sister of our little patient died in the same house from a severe attack of fever, accompanied by the species of sore throat peculiar to this affection. What, in addition, gave countenance to this apprehension, was the desquamation, to some extent, of the cuticle, from the anterior part of the chest; but this might have depended exclusively on an erysipelatous condition of the skin around the incision, and extending down the anterior part of the chest a few days after the operation. The age of the patient, and the uncomplicated condition of the complaint—there was no pulmonary affection—were very encouraging circumstances in this case. Another circumstance which, in my opinion, promoted a favourable result, was the free opening in the trachea, as a strong expiratory current was permitted, which forced out the whole of the false membrane which was situated below the incision. The false membrane reached about an inch below the lowest point of the incision, very near the bronchial bifurcation. Some authors mention, that there is no prospect of success if the membrane extend below the point chosen for incision.

I do not consider that the question of tracheotomy should be delayed till the leaden hue of the countenance and purpled colour of the lips evince to what extent the vitiation of the circulating fluid has advanced. The hopelessness of the case can be easily prognosed before the affection has advanced so far; and if an earlier period were generally chosen, there would, in all probability, be less chance of the extension of the false membrane into the bronchial tubes. It would have been hopeless to have expected the expulsion of the false membrane through the glottis, when, even in the attenuated condition in which the last portion came away, it required considerable traction with forceps to separate, or, rather, tear it from its adhesion to the inner surface of the trachea. Though the membrane had been loose in the trachea, such a mass coming up through the glottis with diminished expiratory efforts to force it through would inevitably have produced suffocation. Although the lower edge of the membrane was unattached to the walls of the trachea, it was firmly connected with the upper part, as was evinced by the strong adhesion of the attenuated portion that came last away.

The greatest number of authors who write on this disease consider tracheotomy as a hopeless expedient to save patients labouring under this formidable malady. If one can be saved out of ten, or even a much smaller exceptional proportion, I see no good grounds to withhold from a little sufferer the only chance which he has of being snatched from the jaws of death.

Ayr.

The Aboation Case at Clapham.—The prisoners were again brought up on Saturday, and again remanded. On Monday orders were read at all the station-houses in London, and communicated to all the county police, requiring the officers to use every exertion to apprehend the Rev. Mr. Gordon. It is firmly believed, that he has not left the country, but that he is in concealment in or near the Metropolis.

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

CASES OF MELANOSIS.

The following series of cases of melanotic or black cancer affords some interesting exemplifications of the chief circumstances in the natural history of that disease. Its preference for those parts naturally abounding in pigment, is shown by the fact, that out of the ten cases mentioned, seven appeared to have originated in the rete mucosum, and one in the choroid coat of the eye. Out of the seven cutaneous cases, there was in four or five either certain or very probable evidence of previous existence, on the site of the growth, of an abnormal collection of pigment in the shape of a congenital mole. In the whole number, however black, and, to the naked eye, apparently homogeneous, the section of the tumour appeared, yet, when examined by the microscope, numerous colourless cells were discovered, in all respects exactly like those of medullary cancer. In three examples the primary growth consisted chiefly of medullary cancer, with but a small admixture of the melanotic element, and in another the secondary formations in the lymphatic glands were of that character. These facts tend very strongly to support the now generally received opinion as to the close connexion which exists between these two varieties of cancer.

ST. BARTHOLOMEW'S HOSPITAL.	
Cutaneous Melanosis of the Chin	Mr. Lloyd.
,, ,, Foot	Mr. Lloyd.
,, ,, Back	Mr. Wormald.
Melanosis of the Foot and Inguinal Glands	Mr. Lloyd.
,, ,, Testis and Cord	Mr. Stanley.
THE LONDON HOSPITAL.	
Melanosis with Medullary Cancer of the Leg	Mr. Luke.
,, in the Orbit	Mr. Wordsworth.
THE ROYAL FREE HOSPITAL.	
Cutaneous Melanosis of the Fore-arm	Mr. Gay.
THE ROYAL OPHTHALMIC HOSPITAL.	
Melanosis of the Eye	Mr. Bowman.

ST. BARTHOLOMEW'S HOSPITAL.

MELANOSIS OF THE SKIN UNDER THE LOWER JAW.—EXCISION.—RECOVERY.

[Under the care of Mr. LLOYD.]

Lucy Cherwood, aged 60, a tall, rather spare, but fresh-complexioned woman, was admitted on December 27, 1852, on account of a large melanotic tumour beneath the chin. It appeared, on inquiry, that, from birth, she had had a small brown mole beneath the body of the lower jaw, on the left side; and that, up to November, 1851, it had given her no trouble. At that date it had begun to enlarge, and in a few months had formed a small pedunculated tumour the size of a large hazel-nut, and extremely black in colour. It gave her no pain; but she, being anxious respecting it, consulted a surgeon, who at once placed a ligature round its neck, after which it dropped off, leaving behind a small portion having the same dark appearance. In the course of a few weeks a second ligature was applied, and this time a troublesome and bleeding sore followed, which was very slow to heal. Before it was quite healed, there was evidence of another growth being in process of formation, rather nearer the median line than the first one. These operations were in May, 1852. During the summer of that year, the second growth increased rapidly, but occasioned no pain. She now applies in order to have it removed. It is about the size of a flattened hen's egg, immediately beneath the skin, to which it firmly adheres, being, however, very movable on the deeper parts. The skin is discoloured, and of a dark brown; in one spot it is excoriated, and covered by a scab. During the last few weeks she has experienced a little darting pain in the part. She has not in any respect lost health, and, to the best of her knowledge, she is free from any hereditary predisposition to malignant diseases. She has been married, and is the mother of a large family. Mr. Lloyd felt no difficulty in arriving at a diagnosis, to which the previous history, the dark colour, and solid feeling of the mass all pointed.

On January 1, Mr. Lloyd dissected out the whole growth, together with the superjacent skin which was involved in the disease. One or two small lymphatic glands were also removed. The deposit appeared to have taken place in the true skin and subcutaneous cellular tissue, which were converted into a solid, homogeneous, black mass, about an inch in thickness, and two-and-a-half in width. Its section yielded a brown juice, which, mixed with water, exhibited cells of the character here shown.

The greater part of them would not easily have been distinguished from those of medullary cancer; but there were also a considerable number of those peculiar to melanosis. These consisted of masses of aggregated granules and small corpuscles of a red brown or bistre tint, which, although not possessing any visible cell-wall, were yet evidently not collections formed by mere accident, since their outline, excepting where plainly broken, was abrupt, rounded, and well-defined. Their size varied greatly; the very large dimensions of some of them may be estimated by comparison with those of a blood-cell to the right.

Nothing could have been more favourable than the after progress of the patient. The wound healed kindly, and she was able to return home in a very short time.

MELANOSIS OF THE SKIN ON THE DORSUM OF THE FOOT.—EXCISION.—RECOVERY.

[Under the care of Mr. LLOYD.]

Ann Barnes, aged 13, a stout, but very pallid girl, of the lymphatic temperament, was admitted on June 7, 1852. Over the instep of her right foot was a tumour, the size of a nut, of a peculiar blue-black colour, and attached by a thick peduncle. Its surface was ulcerated from bruising, and was covered by a scab of dried blood. The history given was, that there had been in that situation a black mark (probably a mole) for upwards of ten years, and that it had increased very slowly until within the last year, when its growth had been more rapid. It had occasioned little, if any, pain; but had of late frequently bled when injured. It cannot be ascertained that any of her relatives have suffered from any form of cancer.

June 9th.—Mr. Lloyd surrounded the disease by elliptical incisions, and dissected it out, after which the edges of the wound were approximated by means of sutures.

The section of the growth showed a circumscribed mass of homogeneous, solid brown-black deposit, which was covered in all parts, excepting where ulcerated, by a thin layer of epidermis. Its base was very abruptly defined, and did not extend into the subcutaneous tissues. Under the microscope, its juice yielded pretty exactly the appearances described in the last case. Owing probably to the anæmic condition of the patient, the wound, in this case, did not heal kindly: its edges sloughed, and considerably increased its size. Afterwards it assumed an indolent character, marked by raised edges somewhat everted, and a surface displaying large flabby granulations, covered with yellow unorganised lymph. Various means were tried, including the application of caustics, and the internal use of steel; but even under the most persevering treatment, it was not till August 26, that she was well enough to be discharged, and even then the sore had not perfectly cicatrised.

Mr. Lloyd remarked, that he did not consider this tardiness in healing as an ill omen, as it regarded the probability of the future re-appearance of the disease, since he believed that the sloughing which had taken place would more effectually insure a complete removal of the local aptitude for its development than would otherwise have been the case.

On Sept. 20 she was re-admitted, as the ulcer had, instead of closing, extended itself in size. Its characters were as before, and there was no evidence of a return of the disease. She was still pale; pulse 110; no pain complained of in any part. After a few weeks, the ulcer healed, and she was discharged.

May 18, 1853.—This patient has quite regained her health, and she remains hitherto without any indications of a return of the disease.

MELANOSIS OF THE SKIN OF THE FOOT.—TWICE EXCISED.—RETURN OF DISEASE IN INGUINAL GLANDS.—DEATH.

Under the care of Mr. LLOYD.

Emma Bentley, aged 18, fair-complexioned, and of delicate, but not cachectic appearance, was admitted on June 3, 1852, on account of malignant disease of the left inguinal glands, of which she gave the following history:—When born, she had, on the outer border

of the left foot, a small mole, which, at the age of 14, began to increase rapidly. In two years it had attained the size of a walnut, when it was excised by Mr. Cock, in Guy's Hospital. For six months previous to this operation it had been very painful. The wound had scarcely cicatrised, when the disease re-appeared in the same part, and the lympatic glands of the groin began to enlarge. Six months after the first, Mr. Cock performed a second excision of the growth. The wound healed favourably, and the glands in the groin remained slightly tumid, but without further increase, for several months. When admitted into St. Bartholomew's Hospital (eighteen months after the last operation) there was on the inner part of the thigh, just below Poupart's ligament, a lobulated tumour, the size of two fists, firm, and rounded in most parts, but soft and fluctuating on its inner side. Over its surface were the orifices of three sinuses, which extended deeply into its substance. These had been caused by the bursting of a large collection of thin whey-like fluid a few days before. The pain was of a shooting character and frequent in its occurrence, but did not often keep her awake at night; it was, however, increasing in severity.

On June 17 it was observed that there was a circumscribed mass of induration within the pelvis, which could be felt by making deep pressure above Poupart's ligament. The discovery of this extension of the disease decided in the negative the question as to the propriety of attempting to remove the mass by operation, which had previously been entertained.

July 29.—The morbid growth is rapidly increasing in size, and occasions very severe pain; her nights are almost sleepless; she is losing flesh and strength.

℞ Morph. acet. gr. ½ o. n.

31st.—A slight attack of hæmorrhage from the ulcerated surface occurred, which was readily checked by the application of powdered matico.

August 10.—The mass has now obtained the size of an infant's head; its surface is flat, and being covered with superficial slough, has the appearance of soaked wash-leather; its base is constricted, giving it somewhat of a pedunculated character. The discharge consists of a very fetid mixture of ill-formed pus and slough. Various anodynes have been applied locally, and among them the tincture of aconite, but with very little relief. She takes very little nutriment, excepting wine and jellies. Aug. dos. morph. acet. ad gr.ss.

On August 28th she died, worn out with suffering, and emaciated to the last degree. The tumour had sloughed away to a great extent during the last few weeks, and, at the time of death, was very little above the level of the skin.

Post-mortem.—The seat of the tumour presented one huge sloughy ulcer, the base and edges of which were infiltrated with cancerous matter. Immediately under Poupart's ligament was a rounded, firm lump, covered by sound skin, on dividing which it was found to be caused by a mass of diseased structure, the size of an orange, which lay behind the peritonæum, just within the brim of the pelvis, and had evidently consisted of a cluster of glands. Its section presented various shades of white, grey, and brown, and was interspersed with circumscribed nodules of black melanotic structure, the largest of which was the size of a hazel-nut. Although soft and juicy, it was not sufficiently pulp-like to be compared to brain. Examined with a microscope the growth was found to consist of a mixture of medullary and melanotic deposit, the former being found in the light-coloured portions, and the latter in the black ones. The lumbar glands, which were slightly enlarged, yielded no cancerous matter, nor was it found in any other organ of the body. On the cicatrix on the foot was a slightly elevated, very black patch, the size of a shilling, from which the cuticle easily peeled, leaving exposed some almost diffluent melanotic deposit, unmixed with the lighter coloured portions which distinguished the glandular disease.

MEDULLARY AND MELANOTIC CANCER OF THE TESTIS.—EXCISION.—RECOVERY.

[Under the care of Mr. STANLEY.]

Elijah Bottrell, aged 38, a stocking-weaver, a man of unhealthy aspect and sallow complexion, was admitted on Nov. 16, 1848. He stated, that for twenty years his right testicle had been slightly enlarged, and subject to aching pains, but that its chief increase had taken place within the last six months, during which time the pain had been severe. Six weeks ago a surgeon at Leicester introduced a trocar into the testis, when nearly two ounces of thick creamy matter exuded, but was not, as the patient thinks, followed by any diminution in the size of the organ. Soon after this he noticed two small lumps above the testis, which rapidly increased in size, and became painful. Mr. Stanley found, on inspecting the part, that the testicle was at least twice its natural size, firm, and extremely sensitive to pressure. Attached to the cord just above the globus major, were two rounded tumours, each about the size of a cherry, one being on the anterior, the other on the posterior aspect. They were somewhat movable, and gave to the finger a deceptively distinct sense of fluctuation. The whole cord, as high as the external ring, was swollen and indurated, but there was no affection of the glands in the groin. Mr. Stanley felt little doubt as to the nature of the disease, but, as the man was still under the influence of a mercurial course which had been prescribed by his medical attendant, he preferred to wait till it should have passed off, before performing the operation of castration, to which the patient had given his consent.

Nov. 25.—The patient having been brought into the operating theatre, Mr. Stanley excised the testis, with as much of the cord as could be reached. Several small arteries having been ligatured, the lips of the wound were brought together by means of sutures.

During the first fortnight after the operation, he suffered from general constitutional disturbance, marked by feverishness, loss of appetite, and depression of spirits. The wound, also, took on an unhealthy action, and sloughed superficially. Under the use of a mildly stimulating regimen, however, he ultimately recovered, and the wound healed. The progress was, however, very tardy, and it was not till Jan. 10 that he was well enough to be permitted to go into the country; and at that time his health continued very delicate.

The section of the testis presented the ordinary appearance of soft cancer, and was of a pale grey colour; interspersed in it, however, were several firmer masses, about the size of large peas, which were quite black. In other parts were clots of extravasated blood. The little tumours on the cord did not, as had been suspected, contain fluid, but a mixture of dark, melanotic deposit, with very soft medullary structure, enclosed in a thin cyst.

In addition to the usual constituents of medullary cancer, the dark portions of the tumours contained, when examined microscopically, the peculiar corpuscles found in melanotic matter. These were large, about 1-1200th of an inch in diameter; oval or round in shape, except when, as often happened, they were variously broken; having very thin, if any, cell-wall, and being completely filled with, or formed of, closely-packed granules, the mass of which had a deep brown colour. We are indebted to Mr. Ludlow, one of Mr. Stanley's dressers at the time it occurred, for the notes of the above very interesting case, the microscopic examination of which was made by Mr. Paget. Mr. Ludlow informs us, that there is, in the Norwich Hospital Museum, another specimen of melanosis of the testis. Cruveilheir mentions a third example of the same, respecting which Mr. Curling, in his work on the Diseases of the Testis, remarks, that it is the only one on record with which he is acquainted. No doubt but the disease is extremely rare. The Hunterian Museum does not, we believe, contain a specimen of it.

THE LONDON HOSPITAL.

LARGE GROWTH OF MEDULLARY AND MELANOTIC CANCER IN THE LEG.—EXCISION.

[Under the care of Mr. LUKE.]

In all the preceding cases, although under the microscope numerous colourless cells were seen, not distinguishable from those found in ordinary soft cancer, yet in most of them the section of the tumour was, to the naked eye, uniformly black.

In the following case, the melanotic element was, however, very small, and consisted of little black masses sparingly interspersed in the midst of pale grey medullary structure.

James Palmar, aged 46, a farm labourer, of dark complexion, and, until lately, of robust health, was admitted on February 8. On the back and inner aspect of the right leg was a large, foul ulcer, with prominent and everted edges, and a sloughy, excavated base. The whole appearance of the sore was unmistakably malignant. Although moderately stout, the patient had a peculiarly, sallow, unhealthy aspect; and, according to his own account, he was fast losing flesh. He stated, that, for fifteen years past, he had been aware of the existence of a very small subcutaneous induration (? a mole) in the middle of the site of the present growth, and which, five years ago, had begun to increase in size. At first no pain attended it; but, six months ago, ulceration took place; and since then the burning and darting pain had often been severe

enough to keep him awake at night. He knew of no family history of malignant diseases.

On account of the existence of a slight enlargement of the glands in the groin of the affected side, Mr. Luke was not inclined to urge any operative measures. He represented the nature of the case to the patient himself, and explained the degree of probability of relief promised by an operation; at the same time recommending that, if he inclined to submit to any operation, it should be to amputation of the limb. The latter measure the man refused to consent to, while he was extremely anxious that the removal of the diseased parts should be attempted. A consultation was accordingly held, and, with the concurrence of his colleagues, Mr. Luke determined to accede to the man's request.

On February 20, excision of the parts was accordingly performed, the patient being under the influence of chloroform. It was found necessary to extend the dissection deeply behind the tibia, in order to remove all the diseased structure, and the wound made was necessarily very large. The posterior tibial artery was involved in the growth, which had infiltrated itself among the muscles of the calf. During the operation it was cut across, and immediately afterwards tied. The quantity of blood lost altogether was not large.

After removal, the base and edges of the sore were found to be composed of thick layers of soft medullary cancer, in which were seen, in several parts, masses the size of horse-beans, of a black colour. Under the microscope, the latter were seen to be made up chiefly of the large melanotic cells previously described; while the former presented the usual appearances of medullary cancer.

May 5.—Since the operation, the man's general health has much improved, and he has certainly lost, in some degree, the peculiarly sallow aspect which he had previously. The sore had very nearly healed, when there sprang up from the uncicatrised portion a bunch of firm, sprouting granulations of very suspicious appearance. To-day, Mr. Luke excised this diseased part, together with all the surrounding induration. The section of the removed portions was pale grey and succulent, and they evidently consisted of medullary cancer, without, however, any admixture of melanosis. The wound is now progressing favourably. The glands in the groin have remained in precisely the condition they were in prior to the first operation, and have certainly not at all increased in size.

MELANOTIC GROWTH WITHIN THE ORBIT.

[Under the care of Mr. WORDSWORTH.]

Anthony Pain, aged 60, a stout and florid Irishman, was admitted on October 14, 1852. His left eye was much protruded by some tumour behind it, which bulged forwards so as to be perceptible to the finger at the upper and outer part of the orbit. Vision was not interfered with, but he suffered much pain in the globe, which frequently disturbed his night's sleep. The history which he gave was, that four months previously he had suffered from "cold in the eye" for some time, and that two months later he had noticed the eye beginning to protrude. He was not aware that any of his relatives had ever had cancer.

A consultation having been held on the case, it was deemed right to attempt an operation, since there appeared no conclusive reason for believing the disease malignant, and from its rate of progress it was evident that the eye must soon be destroyed by pressure if nothing were done. Mr. Wordsworth accordingly consented to undertake an exploratory operation, and, on October 20, the patient being under the influence of chloroform, he made an incision down to the tumour in the upper part of the orbit, and removed a small portion of it, which was of a black colour. It was at once submitted to microscopic examination, and determined to be melanotic cancer. This being the case, it was judged useless to proceed with the operation, as the man had refused to have the globe removed, and, as the growth evidently extended deeply, and was so mixed up with the other structures that nothing short of that operation could be of advantage. The wound was therefore closed, in the hope that union might take place, and the disease be left in the same state as before. Unfortunately, however, inflammation was set up, and extending itself to the eye, ultimately effected the destruction of that organ. How far this inflammation was induced by the incision, and how far by the increasing pressure of the growing tumour, may be matter of question.

The man soon afterwards left the hospital, and Mr. Wordsworth informs us that the disease has since considerably advanced.

In this case the deposit must have commenced in a tissue not naturally the seat of pigment, since it had no connexion whatever with the interior of the eye. What the precise tissue was in which it did commence is uncertain; the lachrymal gland was suggested by some; but from the circumstance that the eye was protruded almost directly forwards, Mr. Wordsworth is rather of opinion that its seat must have been in the apex of the orbit.

THE ROYAL FREE HOSPITAL.

MELANOSIS OF THE SKIN OF THE FOREARM—EXCISION—RECOVERY.

[Under the care of Mr. GAY.]

Three years ago, Mr. Gay excised from the left forearm of a woman, aged 29, a pendulous, melanotic growth, very similar in character to the one the section of which we have figured. It was about the size of a walnut, of a blue-black colour, and its base was surrounded by a border of brownish skin, apparently the remains of a congenital mole. The incisions made in the operation included a considerable portion of healthy skin, so as to insure the completeness of the removal of all possibly diseased parts. The existence of the microscopic characters of melanosis was afterwards verified by Mr. Gay, and also by Mr. W. Adams, of St. Thomas's Hospital. The woman was stout and florid at the time of the operation, and she still remains in excellent health, without any indications of a return of the disease, either in the part itself, or the neighbouring lymphatic glands. She is the mother of several children, and has since had two confinements. As connected with the subject of the duration of life after operations for this variety of cancer, we may just allude to a case which Mr. Lloyd has mentioned to us, which occurred a considerable time ago. A man had a small melanotic growth on the upper eye-lid, which Mr. Lloyd excised. During the following three years, it twice returned in the cicatrix, and Mr. Lloyd twice re-excised it. The man came to show himself three years after the last operation, and was then in perfect health; he has not since been under observation.

ROYAL LONDON OPHTHALMIC HOSPITAL.

MELANOTIC GROWTH WITHIN THE EYE—EXTIRPATION OF THE GLOBE—RECOVERY.

[Under the care of Mr BOWMAN.]

In our report of a case, a few months ago, in which Mr. Bowman had removed the eyeball on account of medullary disease, we alluded to one of melanosis of that organ then under care. The convalescence of the latter patient being now complete, we proceed, according to promise, to lay its details before our readers.

Joseph Olive, aged 43, of healthy appearance, applied for advice on account of partial blindness on March 12, 1852. His sight had been perfect up to four or five months ago, when he began to suffer from dimness of vision, which affected, as he fancied, both eyes. It continued with little increase, and constituting very slight impediment to his usual pursuits until three days ago, when, while at church, on a book being offered to him from the left side, to his surprise he discovered that he could not see it. On closing his right eye he ascertained that the perception of objects by his left was only clear when they were presented from the right side; when placed directly in front they were very indistinct, and when to the left quite invisible. He knew of no injury having ever been inflicted on the part. He had suffered no pain, but had for more than a week been frequently annoyed by muscæ volitantes. For the last fifteen months he has been subject to a chronic cough. Such was his condition at the time of admission. The eye appeared, at first sight, healthy, but, on the inner side, near the insertion of the internal rectus tendon, the sclerotica presented two or three large tortuous vessels emerging from the interior, and the iris, on careful examination, was found to be slightly bulged forward at a point corresponding to these, so that the presence of a vascular growth behind the iris was suspected. The pupil was active; but on dilating it with atropine, there was seen behind the lens, on the inner side, a brownish growth, occupying a portion of the vitreous space, and coming up nearly to the margin of the lens. All the humours were perfectly clear, and the man had no pain. The partial amaurosis was at once and fully explained by these appearances.

Mercurial treatment was at first adopted, and when the gums were slightly affected his power of sight increased; but he was still blind to objects on the extreme left. The right side of the retina remained amaurotic.

He then, during the summer months, had occasional relapses of increased dimness, and towards the month of October he was totally blind with that eye. The globe, however, looked very much as it had done in March, only that the brown growth looked more pink, from vessels upon its surface, and had gradually encroached behind the lens.

At this time, no doubt remained in Mr. Bowman's mind but that the disease was melanosis; and, as no other growth was perceptible

elsewhere, and the eye was already lost, he advised the patient to submit to the excision of the globe, anticipating the next stage of the disease, when painful distension and inflammation would ensue. The suggestion was, however, declined.

In November the globe became the seat of painful inflammation, it was tense and red, the pupil was irregularly dilated, the aqueous humour yellowish, the lens dull, and all behind it obscured. His health was suffering from want of rest, and the excision of the globe was again proposed to him, but declined. At the end of December, however, he gladly submitted to it, having been considerably reduced by the suffering, which no remedies served to relieve. He had on a few occasions spat blood with his cough, but an examination of his chest failed to show any evidence of organic disease.

The unpromising features as to the ultimate result of the operation were fully explained to him.

On December 31, Mr. Bowman performed excision of the eyeball, again adopting the improved method of operating described in our late report.(a)

The eyeball was alone removed; the venæ cut across as it entered the sclerotica. No disease existed except within the globe, and the optic nerve had no connexion with the disease within. This consisted of a melanotic growth, which was attached to the inside of the sclerotica, on the inner side opposite the point where this tunic had presented some large varicose vessels during life. The tumour projected into the vitreous space, so as to occupy about one-third of it. It came up to the lens, but did not fill the deepest region towards the optic nerve. The vitreous space not occupied by it was filled with serum. The retina appeared quite healthy in all the posterior region, and particularly where it joined the optic nerve; and where the retina met the melanotic growth, it was reflected over it for some space, together with the choroid coat. The morbid growth had, in Mr. Bowman's opinion, originated in the substance of the choroid, and, as it increased, had expanded that tunic, and carried it inwards upon the vitreous space, pushing the retina before it; the sclerotica, by its firmness, resisting extension outwards. The greater part of the growth was cerebriform, but with much brown melanotic matter interspersed, especially in some parts.

The after-treatment was conducted in the usual manner, and nothing worthy of note occurred during it. Up to the present date, May 18, the man appears to be in good health; he has gained flesh and colour, and has returned to his usual occupation.

HOSPITAL FOR WOMEN.

CASES OF OVARIAN DROPSY.

[Under the care of Dr. TANNER.]

In the first Number of this Journal for the present year, we reported two cases of ovarian dropsy which had been under the care of Dr. Tanner in the above hospital, and which had been relieved by the operation of tapping. The relief given, however, proved, as was expected, but of temporary duration, and, in the first instance related, in consequence of the cyst refilling, the operation of ovariotomy was performed, and, unfortunately, with an unfavourable result. As the details of this case have, however, been fully published by Dr. Tanner in the Number of this Journal for the 16th ult., we need not further revert to it. In fact, we only mention the case at all, in order to render our Hospital Reports complete, and in pursuance of our promise to watch and again record the result of the tapping.

In the second patient (Mrs. Maskell), it will be remembered, that paracentesis was performed on the 16th Dec., 1852, in order to give relief to the urgent and distressing symptoms, especially the dyspnœa, from which she suffered. By the removal of upwards of thirty-five pints of fluid, great ease and comfort was, of course, for a time, obtained. Her health improved, she was enabled to leave her bed, and take exercise, and she gradually gained a little strength. It soon became evident, however, that the cyst was refilling, and in spite of diuretics, iodine in different forms, and other treatment, she soon became as large as before. Several large carbuncles also broke out upon the abdominal wall, and caused great suffering. The patient herself was exceedingly anxious that attempts should be made to remove the tumour, but to this Dr. Tanner would not consent, as he stated he was quite certain that the cyst had become adherent to the peritoneum; and he also feared that the disease was malignant. To give her a little relief, however, it was necessary again to tap her, and this was accordingly done on the 14th of February, when twenty-one pints of a pale, purulent-looking fluid were removed, which was found to have a specific gravity of 1020, and to consist principally of albumen. At the end of a few days, it was evident that the cyst was again filling, and she died worn out by the disease on the 6th of March. At the *post-mortem* examination performed eight hours after death, the abdominal cavity was found filled by a large ovarian tumour, springing from the right side, which was almost everywhere adherent to the peritoneum; the adhesions were moderately firm, but could all be broken down by the finger. On removing the tumour, with its contents, it was found to weigh 19½ lbs.; it consisted of a large cyst, containing thick, gelatinous fluid, and at its lower part was a mass of colloid cancer, about the size of the fœtal head. Part of the solid matter was examined microscopically both by Dr. Tanner and by Dr. Brinton. The left ovary, uterus, and other abdominal viscera, were perfectly healthy, as were the thoracic viscera; the latter, however, were much displaced, having been pushed upwards by the tumour.

(a) *Vide Medical Times and Gazette*, for Jan. 29, 1853.

SCIENTIFIC LECTURES.

ROYAL COLLEGE OF SURGEONS.

TUESDAY, MAY 24, THURSDAY, MAY 26, SATURDAY, MAY 28.—Lectures on Muscular Action, Dislocation, and the Treatment of Disease. By Professor SKEY.

LIST OF SCIENTIFIC MEETINGS.

This Evening,	May 21.	ROYAL INSTITUTION.—*Subject*:—"On Air and Water." By Dr. JOHN TYNDALL. Three o'Clock.
——	——	MEDICAL SOCIETY OF LONDON.—*Subject*.—"On the Physiological Uses of the Ganglionic Nervous System." By Dr. DAVEY. Eight o'Clock.
Tuesday,	May 24.	ROYAL INSTITUTION. — *Subject*: — "On the Electric Telegraph." By W. CARPMAEL, Esq., C.E. Three o'Clock.
——	——	ROYAL MEDICAL AND CHIRURGICAL SOCIETY. Half-past Eight o'Clock.
Thursday,	May 26.	ROYAL INSTITUTION.—*Subject*:—"On Technological Chemistry." By Dr. E. FRANKLAND. Three o'Clock.
Friday,	May 27.	ROYAL INSTITUTION.—*Subject*:—"On Hydrogen and its Homologues." By B. C. BRODIE, Esq. Half-past Eight o'Clock.
Saturday,	May 28.	ROYAL INSTITUTION. — *Subject*:—"On Air and Water." By Dr. J. TYNDALL. Three o'Clock.
——	——	MEDICAL SOCIETY OF LONDON. — *Subject*:—"On the Induction of Premature Labour, Craniotomy, and the Cæsarian Section." By Dr. TYLER SMITH. Eight o'Clock.

Medical Times & Gazette.

SATURDAY, MAY 21.

THE QUEEN'S LATE ACCOUCHEMENT.

We did not announce the fact of Her Majesty having inhaled chloroform during her late accouchement, because we did not think the Profession justified in prying into the domestic arrangements of the Palace. As, however, another Journal has thought fit to comment on the subject, we may now mention the particulars.

Dr. Snow administered chloroform to the Queen, in the presence of Sir James Clark, for the last hour of parturition. A handkerchief, on which a small quantity of chloroform had been dropped, was held to the face. Her Majesty was never completely insensible, but she expressed herself satisfied with the anodyne effects produced.

Should further information be required, we are confident Dr. Snow will, with his usual courtesy, afford it to all such as consider themselves *entitled to ask it*.

Uneasy, indeed, would be the head which wears a crown if Royalty might not avail itself of all those means for the alleviation of suffering which Providence has placed within the reach alike of rich and poor. Who would desire Her

Majesty to suffer one avoidable pang, that she might satisfy the morbid sensibility of the timid, or the domineering coarseness of the bigot?

If the employment of chloroform be hurtful in parturition, then should the Profession unite in forbidding its administration to the humblest mother in the realm; but, if its use be advantageous, surely no one has a greater right to its benefits than that gracious lady under whose beneficent rule we have the happiness to live.

If it be desired to retain popular feeling in favour of that freedom which the British Press now enjoys, the sacred pale of the family circle must be exempt from our criticisms. To this exemption there must be no exception,—not even in favour of the Palace. We mention especially the home of our beloved Sovereign, because certain persons have been accustomed to allow themselves an unwonted licence when commenting on what is reported to them from its precincts, taking advantage of the fact, that the Queen is the only lady in England who can be insulted with impunity.

AN ORIENTAL GRIEVANCE.

The affairs of India are just now the common topic of conversation. We are beginning to learn, that even in India there is a public opinion which can make itself felt in England, and that the destinies of our Hindoo fellow-subjects cannot be disposed of by us, without some attention to their wishes and opinions. A strong feeling is abroad, that the natives of India must be treated with more consideration and liberality. The extraordinary anomaly of our position in India is such, however, as to render it impossible to act upon the rules which in this country would be unhesitatingly adopted; and we believe that those who judge of Indian affairs cannot be too cautious in the advice which they may be called upon to give.

A case has lately been brought under our notice by a gentleman in this country, which, though in itself slight, may indicate the difficulties of this subject. It will be remembered that, some years ago, three Hindoos were sent here by the Company, to be educated for the Profession of Medicine. These gentlemen studied at University College, filled the ordinary offices in the hospital, joined the College of Surgeons, and graduated at the University of London. In England they were treated with consideration, almost with distinction, and were not made to feel that their position was in any way inferior to that of the British gentlemen who were training for the same Profession.

After the completion of their studies they returned to India, where one of them died; the two others have remained in the service of the Company, and have, we believe, merited the approbation of their superiors. One of them, Dr. Chuckerbutty, has communicated to the columns of this Journal papers of considerable interest, which prove him to be an accurate and scientific observer.

It has been felt very strongly, by several gentlemen who were much interested in this experiment, that these two Hindoos, who had received the most competent Medical education this country could offer, and who had graduated at a University whose medical degrees take the first rank, ought to have been admitted into the privileged, that is, into the commissioned, ranks of the Company's service. This, however, has not been done, and the two Hindoos remain in the subordinate department.

It has been asked in this country, and with reason, why these Hindoos were sent to England at considerable expense, and with some parade, and were educated in the most finished manner, only at last to be permitted to sink down among the crowd of native and half-caste apothecaries? Judged by the critical eye of their fellow-students at University College, the talents of these gentlemen seemed to be above the average. Is the scientific standard of India more severe, and have they there been tried and found wanting? On the contrary, we have reason to believe that they have performed their duties to the satisfaction of their superiors.

At first sight, it does certainly seem a hard case that so much labour and so many acquirements should go for nothing. It is especially hard in the case of Dr. Chuckerbutty, who forfeited a most respectable rank in the caste of the Brahmins by his attachment to English studies, and by his voyage to this country. But here we have simply an instance of the anomalies of India. The Company govern by a class, the class of Englishmen, into which it is really difficult to admit an Hindoo. Commission Dr. Chuckerbutty as an Assistant-Surgeon, send him on the ordinary duties of his rank, and on all sides difficulties would arise. The Hindoos and half-castes, with whom he would first be brought into contact, would object to his authority; at a later date, the Englishmen, who might be inferior to him in rank, would be dissatisfied that a Hindoo should take precedence. And then, what would be gained by the step? Dr. Chuckerbutty might die a Superintending-Surgeon; but the class of which he is a member would be no better off than before. A single Hindoo would be put in a situation surrounded with difficulties; the Hindoos, as a body, would be where they were.

It is, in fact, evident, we should conceive, that the education of these Hindoos in England was a mistake. It has neither benefited them nor their class, and could not benefit them, unless the whole system of Indian Government were altered, and Hindoos were admitted, equally with Englishmen, to offices of responsibility and command. That this should not be done we do not contend, but it must be done with the greatest caution.

We believe, then, that the East India Company may be defended for the exclusion of Dr. Chuckerbutty and his companion from the ranks of commissioned officers, on the ground, that the constitution of the Indian Service does not readily admit them. But this admission does not relieve the Company from all responsibility. They must not commit individual injustice; they sent these men to England, developed their minds, called forth their ambition, and prepared them for an useful and honourable career. This career, somehow or other, should be given them. If no place is now found for them, it should be created. If it be difficult to commission them, at any rate it cannot be impossible to single them out from the crowd, and provide for them a proper sphere. It is most unjust, and impolitic as unjust, to neglect them. If necessary, a new rank might be made for them, which might terminate with their lives, unless before that time the affairs of India are modified, and her own natives are permitted to have some voice in the management of their own affairs.

We would venture to urge Dr. Chuckerbutty's case on that active body, the Committee of Graduates of the University of London. Here is an M.D. of the Metropolitan University in a situation which must wound the pride of any susceptible Graduate. The Committee are eager for their rights: here is a case in which they might clearly act with effect. They need not ask for anything definite, but merely that the attention of the Board of Directors may be directed to the point, and may grant to Dr. Chuckerbutty a station in accordance with his abilities and education.

SUICIDE OF A PRISONER AT THE BIRMINGHAM GAOL.

It is often mentioned with pride by Englishmen, that individuals, however mean their condition, or however addicted to evil, are still treated with impartiality and fairness in our Courts of law; and that, in fact, since Justice is blind, so she measures out equally to rich and poor, to innocent and guilty, the rewards or punishments which they personally merit. Now, a case has just occurred at the Borough Gaol of Birmingham, which we think is calculated to bring disgrace upon our system of prison discipline, and which, consequently, to say the least, calls for more investigation than it has hitherto received. Not but that we must confess an inquest has been held, and a verdict of "Suicide in a state of Insanity" returned to the Coroner by a *most respectable jury*; but, in truth, we really begin to lose faith—if we have not long since lost it—in the utility of these pot-house investigations. Whether the odour of stale beer, combined with the influence of tobacco-smoke not over fresh, serves but to stupify the intellects of the not usually strong-minded Englishmen who compose the Coroner's jury, we cannot say; but if our inquests are to be of the use they are intended to be, the entire mode of conducting them must be remodelled.

However, without entering upon the discussion of this important question at present, let us briefly place before our readers the facts which have led to these remarks. It appears, then, that, on the 6th inst., an inquest was held at the Golden Eagle, Birmingham, to inquire into the circumstances attending the death of a youth, named Edward Andrews, an inmate of the town prison, who had committed suicide two days previously. From the evidence of Lieutenant Austin, the Governor, it seemed that—

The deceased, who was fifteen years of age, had been about the middle of March summarily convicted, under the Juvenile Offenders Act, for stealing 4lbs. of beef, and sentenced to two months' hard labour. This was his third committal, having had previously fourteen days' imprison ment for throwing stones in the streets, and a month for stealing garden fruit. In the present instance, the hard-labour punishment commenced two days after his admission to the prison. In lieu of the old-fashioned treadmill, the prisoners have to turn what is called a crank, the movement being somewhat similar to that employed in turning a common grindstone. This "crank" labour is connected, it appears, with the water supply of the gaol; but, as a direct means of punishment, it is capable of being regulated according to the strength of each prisoner; and while the pressure, therefore, is 8lbs. for a youth of his age, a pressure representing only 5lbs. was put upon it in the case of the deceased prisoner, in consequence of the weak state of his health. He had to turn this crank ten thousand times every day—two thousand revolutions before breakfast, four thousand between breakfast and dinner, and four thousand betwixt dinner and supper. If this task was not performed, he was dieted on bread and water until he had made up the deficiency, each day's shortcomings being carried forward as a balance against him. On many occasions the deceased had failed to turn the crank the required number of times, and twice or thrice he broke the glass covering of a dial which indicates the number of revolutions, in order that he might push forward the index finger to the proper figure, and so avoid punishment. For these breaches of prison discipline he was punished by being restricted to bread and water diet on Sundays. On another occasion, having been noisy in his cell, he was put into a strait jacket, by which his arms and head were rendered immovable, and in this condition he was strapped to the wall of his cell, thus to remain "until he behaved himself." On Saturday week he committed another breach of prison discipline, and, having been brought before the Governor, that gentleman told him he should not punish him any more, but would report his case to the visiting justices, and leave them to deal with him. He was still on bread and water diet, and he continued at the crank labour until Wednesday night. About half-past six he was seen in his cell by Cotterill, one of the warders. Another punishment to which he had been subjected for having his cell in a dirty condition, was the withholding of his bed for an hour and a half after the time at which the prisoners retire to rest. Accordingly, it was not till ten o'clock that Jones, another of the warders, entered his cell for the purpose of spreading his mattress; and he then found deceased hanging to the iron bars of his window, quite dead, though still warm. Having broken two squares of glass, he had fastened his hammock straps to the bars, and tying his neckerchief round his neck, had flung himself off the stool by which he was enabled to reach the window. The Rev. A. Sherwin, the prison chaplain, then offered to put the Coroner and jury in possession of the circumstances within his knowledge as to the state of deceased's mind. Deceased had told him that the pangs of hunger which he suffered from the bread and water diet, together with the "crank" punishment, were greater than he could bear. He appeared to be a willing lad, but seemed very weak. Upon passing his cell one day, witness heard some groans of a very peculiar character, and on going in he found him with a strait-jacket on, and strapped up to the wall, in the manner above described. Witness had remonstrated with the Governor on several occasions with regard to the Sunday punishments, but without effect. Deceased had lately seemed to be in a very low and melancholy state of mind. Two other prisoners, who attempted to commit suicide, had also told witness that the pangs of hunger, resulting from the bread and water diet, had driven them to think of self-murder; one of them was now in the gaol, the other was undergoing sentence of fifteen years' transportation. This being the whole of the evidence, the Coroner briefly commented on the system of discipline carried on in the gaol, and left it to the jury to say whether they might not reasonably conclude the deceased was of unsound mind at the time he hung himself. With the causes of his mental aberration they had nothing to do, unless they considered some one culpably blameable. After an half-an-hour's deliberation, they returned a verdict of "Suicide in a state of Insanity," unaccompanied by any remark.

Now, we trust that we shall not be considered morbidly sensitive when we say, that we feel deeply for the sufferings of this boy, fifteen years of age, thus punished, in reality, for stealing a small quantity of beef. As the case at present stands, however, we shall make but these two inquiries,—Where was the Surgeon of the gaol during the boy's protracted punishment and consequent sufferings? and, Why was he not called at the inquest? The boy, we are told, was in a weak state of health; yet he was put to hard labour—we would say, to very hard labour—and, at the same time, deprived of rest at the end of his day's work, and fed on bread and water! We feel confident, that no Surgeon could have sanctioned such treatment; and we trust, for the credit of the Medical Officer of the prison, that he was ignorant of the facts which we have just detailed. Of course, the jury did not ask for the evidence of the Surgeon; they never do. The easy consciences of these gentlemen are fully satisfied by a verdict of "insanity," and so the matter is allowed to end. Let us not omit to mention, moreover, that the foregoing makes the third suicide which has taken place in the gaol, the preceding one having occurred only three weeks since.

UNSOUGHT NEWSPAPER TESTIMONIALS.

We extract the following from among the news department of the *Dover Telegraph*, of May 14:—

"University of Saint Andrew.—Our readers will be glad to learn that the *Senatus Academicus* of the University of Saint Andrew have conferred the degree of Doctor in Medicine upon our townsman, Edward Jones, Esq. The examinations which candidates for the Doctorate undergo at this University are of the most searching description: they occupy three days—the 'pass papers' comprising questions in medicine, surgery, physiology, chemistry, and midwifery, not only of a practical but of a theoretical

character. Latin also forms part of the testing nature of the candidate's qualifications; and after these have been successfully passed, a *vivâ voce* examination is instituted. *We must be allowed to congratulate Doctor Edward Jones upon having honourably undergone so searching an ordeal; and our fellow-townsmen, that they are not to lose his services as a General Practitioner.*" (The italics are ours.)

We can imagine the feelings of exuberant delight which prompted, and found vent in, the above announcement. What editor of a provincial newspaper could become acquainted with such successes achieved by any of his townsmen, and keep his feelings of admiration pent up within his bosom? The columns of his journal are too tempting an outlet, and hence, we suppose, the above graceful effusion. But is the worthy Editor of the *Dover Telegraph* so intimately acquainted with the searching nature of the examinations at St. Andrews? and how did he become so? We greatly fear, from the subsequent announcement (in italics) that the Editor has been rather too inquisitive, and that, prying into purely domestic matters, he became acquainted, at one and the same time, that Dr. Jones passed through a most awful ordeal, and that Dover *is "not to lose his services as a General Practitioner."* We beg, also, to remind the Editor, that the fact of "*Latin* forming part of the testing nature of the candidate's qualifications," ought to present nothing very formidable to a gentleman who, in 1831, was made "Bachelier ès Lettres" in the University of France, and who, in 1837, became L.S.A. So that here our Contemporary's sympathies are really uncalled for, and are something like a reflection on Dr. Jones's classical attainments.

Again, we put it to our Contemporary, on the score of newspaper economics, whether he does not run the hazard of having to pay Advertisement-duty for the above gratuitous announcement; and, if he were to deal out the same generous sympathy to all his townsmen, whether his advertisement columns would not grow "small by degrees," etc. For instance, why not, by an Editorial announcement, have saved "Messrs. Jones and Bell, Surgeon-Dentists," the expense of the advertisement which appears in the same paper, announcing that "they *continue to practise* in Canterbury every Friday and Saturday, and occasionally to visit Dover"?

THE REGISTRAR-GENERAL'S REPORT.

Is a very unpretending, and, at first sight, perhaps, from its official appearance and pages of figures, forbidding-looking pamphlet, issued quarterly from Somerset-house, may always be found matter of great interest and moment. Unpleasant truths are told with the greatest nonchalance; for, since the Great Destroyer performs his part uninfluenced by party feeling or by private prejudice, so at the same time he reminds us, by the increased number of deaths in unhealthy over healthy localities, of the cost of neglecting sanitary precautions, of the penalty which we pay for bad drainage, for insufficient supplies of fresh air and water, and for unwholesome dwelling-houses—the hot-beds of scrofula, consumption, and a host of infectious diseases.

The Return just issued comprises the births and deaths registered in all the districts of England during the winter quarter ending March 31, 1853, by 2190 Registrars; as well as the marriages which occurred in the quarter ending December 31, 1852, and which were returned from more than 12,000 churches or chapels, from about 3373 registered places of worship unconnected with the Established Church, and from 624 Superintendent-Registrar's offices. From this part of the Return we find that the marriages in the last quarter of the year 1852,—and, indeed, in the whole of that year,—greatly exceeded the number of those of any previous Return, from which it may be inferred that the great body of the people were in a prosperous condition. It is worthy of remark, also, that the greatest number of weddings are always celebrated in the Christmas quarter of the year, in the three months, that is to say, which succeed the harvest. In the last quarter of 1852, we find that 94,416 persons were married, the number for the entire year amounting to 158,439. We further learn, that the marriages in England from 1813 to 1852 were at such a rate that 1 in 60 of the people married annually; the proportion in 1852 being 1 in 57, while, in the last quarter of the year 1852, it was 1 in 48. The births registered in the quarter ending March 31, 1853, amounted to 161,598, a number slightly less, we are told, than that registered in the corresponding quarter of the year 1852. It may be noticed, in passing, that the greatest number of births is usually registered in the spring quarter. The mortality at the close of the year 1852, as well as that in the winter quarter of the present year, has been unfortunately very high, having amounted to 118,241,—a fact which may, perhaps, be accounted for by the general inclemency of the season, by the extensive prevalence of epidemics, and probably, says the Report, by the partial destruction of the potatoe crop. In consequence of this excessive mortality, the increase of population has been less than usual, and less by 12,000 than it was in the winter quarter of 1852, when it amounted to 55,357. Lastly, it is to be noted, that, during the winter, 57,729 persons emigrated from those ports of the United Kingdom at which Government Emigration Agents are stationed, 43,493 having sailed from Liverpool, 7249 from London, and 2129 from Plymouth. Those who emigrated from Liverpool consisted in a great measure of Irish, who resorted to that port on account of its convenience. We have thus endeavoured to give our readers some idea of the principal interesting features of the Registrar-General's last Report, which, however, deserves careful perusal as a whole, but especially with regard to the mortality returns. Many of the poorer classes still dwell in houses only fit for pig-sties; and, while they continue so to do, so long will the deaths from fever and other infectious diseases be proportionately numerous.

THE PUBLIC HEALTH OF ENGLAND.

No. II.

If, as we set out by affirming, it is the first duty of every Government to secure property, and especially life, the most valuable of all property,—and if, as is easily proved, above 100,000 persons perish every year in this country from causes which, by a proper system of social discipline, —that is, by *good* government,—might be prevented,—how shall we say that the Government of this country is, in this momentous affair of public health, performing its duty? Is it a question which Government can leave to a majority of ratepayers in tenements? Is Sir William Molesworth's universal suffrage to be applied to this question of science and humanity—nay, of life and death?

When we learn, that the innocent suffer for and with the guilty in this annual massacre, inflicted by a worse bigotry than that of St. Bartholomew,—when we find, that by far the larger portion of these victims are the poor, the young, the helpless, and the wretched,—the mother in her touching hour of nature's suffering,—the infant during its first year of life,—and the father, whose crowding, weeping, famishing

children are shut from his dying eyes by the merciful delirium of fever,—our hearts burn with sympathy, and yearn for the relief which lies in discovering a cure; but when, in searching for this, we find that the sordid and the wealthy inflict the greater part of all this misery on the toiling and the destitute, we have no language to utter our indignation at the truly devilish Avarice which thus darkens our times, or at the Government which stands so long parleying with the fiend, and permitting the atrocity to proceed.

The only excuse for conduct which leads to such deplorable results, is ignorance of its existence, or ignorance of the means of arresting it: guilt mingles with every other apology for tolerating this terrible preventible mortality, and its still more terrible coincident vice, sorrow, and crime.

The time has now arrived when neither of these excuses can be offered with truth. However the heartlessly gay, rich, and idle, may ignore the diseases and foulnesses which lie festering at their own back doors, the intelligent and humane portion of society, and above all, the Government, are well aware of their existence, and are as well acquainted with their sole and effectual remedy. There is not an educated medical man in the kingdom who is not convinced of the enormity of the evils referred to, or who has a shadow of doubt as to the certainty, ease, and economy of the prescribed methods of cure.

In proportion to our knowledge will be our guilt, if we continue to sanction this annual national massacre; nay, if Government does not now most strenuously exert its powers, and if we, the educated members of society, and above all, the medical men, do not gather round and strengthen the hands of Government, our guilt (none of us who believe in any kind of moral responsibility can pretend to deny it) will go on increasing with our increasing knowledge of the darkness and extent of the crime.

We say, that ignorance of the nature of the evil, or of its remedy, is the only admissible excuse. To say that there are many difficulties—heavy, stertorous apathy to be roused; vested rights of ignorance, avarice, obstinacy in all ranks and many professions, to be combated—is a mere waste of words, and mockery of the magnitude of the evil; to set aside, or, if necessary, to beat down the opposition,—this is *the work* before us, requiring to be immediately and, without any further mourning over the difficulties or parley with the enemy, performed; for, while we are parleying, are not above one hundred thousand persons dying every year who might live, and three millions of persons suffering from more or less severe attacks of illness who might be enjoying health? Were the remedy for such a state of things a matter of expense, instead of one of economy, for the owners of foul-air houses and feverous courts, would it be right for the intelligent, the humane, or the merely sharp, business landlords (who know that cleanliness is more *profitable* than foulness) to waste time in parleying with such opponents as these? Be the landlord a lord rolling in money, or a costermonger rolling in mud, who wishes to resist sound and comprehensive measures of health reform, there can *now* be no parley with him; for, taught as we have been, by twenty years' of study of the science of public health, and by two pestilences past, to stand in the shadow of the coming pestilence, parleying with such wretches, would be only to share in their sin.

Let us put eternity (as a matter not belonging to politics, and, therefore, not to be pressed on any Government) entirely out of view; let us forget the priceless worth (even a Chancellor of the Exchequer *in church* will admit it) of an immortal soul,—and that tens of thousands of such souls in England, which, from the time when their first cry, on entering the world, is stifled in gin, to the hour of their last curse or groan in hospital or hovel, exist in an atmosphere through which the light of virtue can no more stream than star-beams to one coffined alive in deep charnel-vaults; and let us not encumber the question by the reflection, that vast numbers of these immortal spirits had capacities as fit to be developed for heaven as they really were trained for hell; and that society—*we*, who abandoned them to darkness, sorrow, and death, might and ought to have pointed them to purity and happiness; let us forget our share, and Government's share, in the tremendous responsibility of all this, and consider only the *material* interests involved in the question,—the happiness, wealth, progress, and power lost, and the poverty, pain, despair, and death inflicted on individuals and the nation; and as members of an enlightened and humane Profession, among whom this grand, beneficent Science of Public Health was born, and has been nourished, we shall feel the impossibility of submitting to any longer parley with those who oppose its progress,—the necessity of calling on Government no longer to delay doing their duty to society, and the responsibility which lies upon *us* to aid them in that duty, which they will otherwise find it difficult to perform. L.

ROYAL COLLEGE OF PHYSICIANS.

A LETTER FROM DR. BEAMISH, OF RAMSGATE, ADDRESSED TO THE REGISTRAR OF THE ROYAL COLLEGE OF PHYSICIANS.

"DEAR SIR,—The *present* arrangement proposed by the Committee of the College of Physicians, respecting the fees to be paid by the Extra-Licentiates, who are Graduates, and who may wish to become 'members,' appears to me equitable; I therefore hope the College may, for the benefit of the Profession and the public, obtain a new Charter.

"Possibly it might contribute to the object, if the statements above expressed were made known to the public, as it has been made known in the Medical journals, that I have expressed to Lord Palmerston my dissatisfaction with the *former* arrangement.

"I am, dear Sir, yours faithfully,

"Ramsgate, May 10, 1853. F. POTTER BEAMISH."

PROGRESS OF MEDICAL SCIENCE.

SELECTIONS FROM FOREIGN JOURNALS.

SUCCESSFUL CASE OF CÆSARIAN SECTION.

By Dr. DECOENE.

The author relates the following case of a female, aged 30, upon whom he had once before performed the Cæsarian operation. He saw the patient in the seventh month of pregnancy, November 5, 1852, together with Dr. Frédéricy. She had then been forty hours in labour; and stated, that, on the previous evening, she had experienced a breaking or yielding sensation in the lower part of the abdomen, followed by discharges of blood from the vagina, insensibility, and sickness. Since that time, both labour-pains and the movements of the child had ceased. The whole abdomen was very tender. Examination *per vaginam* detected a relaxed os uteri, about the size of a dollar; but neither the head nor other part of the child could be felt, although the limbs could be traced through the abdominal walls. Inasmuch as the author concluded that the uterus had given way, and the child had escaped into the abdomen, he determined upon an operation. After making the preliminary incisions, and opening the peritoneum, he came upon a mass of congealed blood, under which was a male infant, with the separated placenta, and the membranes still entire. It was easily removed; then, to the operator's great astonishment, a second child, female, came to view. Both infants were dead. The uterus, which was contracted, ex-

hibited along its front surface a slit, answering to the line of incision of the former operation. No hæmorrhage ensued; the abdominal wound was united; and, by November 21th, the patient was well.—*Gaz. des Hôpitaux*, 147. 1852.

Sichel observes, in reviewing the above in Schmidt's *Jahrbuch*, that women, who have the good fortune to recover after the performance of the Cæsarian section, appear to be singularly liable to rupture of the uterus along the line of the former incision in every subsequent pregnancy. Kaysen relates six such cases. The giving way of the cicatrix in the earlier months of pregnancy may lead to escape of the ovum, and the development of an extra-uterine growth.

CASE OF HYDATIDS VOIDED THROUGH THE URINARY PASSAGES.

By Dr. GINTRAC.

A patient, aged 29, after experiencing dull pains in the lumbar region, voided occasionally with the urine some thin, transparent, jelly-like vesicles. The pain in the right lumbar region increased, and became very severe on the night of June 4th, when it was accompanied with sickness. While suffering from a fit of shivering, the patient discharged through the urethra a quantity of hydatids, after which he became composed, and went to sleep. The same train of symptoms recurred at intervals for seven or eight weeks, since which time he has remained well. The pain was relieved by frictions of chloroform, and issues were established in the region of the kidneys. Similar cases have been recorded by Laennec and Parmentier. Brachet relates a case in which an hydatid caused retention of urine by becoming impacted in the urethra; relief was afforded by the surgeon piercing it with a sharp sound. Vigla knew a woman in whom the disease had existed from childhood. In the case related by Gintrac, the points of interest consist in the relief afforded by the frictions with chloroform, and the arrest of further hydatid formations by the establishment of issues.—*Jour. de Bord.* Oct., 1852.

UPON PRURITUS GENITALIUM.

By Dr. MAYER.

The author considers this one of the commonest affections to which women are subject. He considers that it may arise from self-abuse, from herpetic eruptions, from syphilis, from incipient scirrhus of the uterus, or from disease of the kidneys. In the last case, nitre, magnesia, soda, or lime-water, seem of use. Should metritis with profuse blennorrhœa be combined with the pruritus, leeches and aperient medicines are advisable. Very frequently, however, cases occur where no material affection is to be discovered; then borax, preparations of lead, mercury, or nitrate of silver, are employed in succession. In many instances, injections and lotions of creosote water removed the symptoms. More recently, Mayer has employed with success an ointment composed of chloroform, one part; fat, twenty parts.—*Verhandl. d. Ges. f. Geburtsh.*, VI. 1852.

UPON THE CONDITION OF THE FŒTAL CIRCULATION IN NEW-BORN INFANTS.

By Dr. ELSASSER, of Stuttgard.

After 370 examinations of the fœtal bloodvessels, Dr. Elsässer arrived at the following conclusions:—Of 70 still-born children, the tubes peculiar to the fœtal circulation were open in 69. In one only, the ductus botalli and the foramen ovale were open and the ductus arantii closed. In 300 children who died soon after birth, 80 out of 108 prematurely born, and living from one to eight days, presented all the passages open; 127 out of 192 infants of the full time had all the passages open, but partly contracted.

The ductus botalli (arteriosus) was open 55 times, and completely closed 10 times; the foramen ovale open 47 times, completely closed 18 times; the ductus arantii (venosus) open 81 times, completely closed 37 times. These facts prove that the vessels peculiar to the fœtal circulation remain open, as a rule, for some time after birth, and that it is not possible to determine accurately by days the period of their closure.

The process of obliteration pursues the following order as regards time:—It commences and is often completed in the ductus venosus, before it manifests itself in the other vessels. There are great varieties in the closure of the foramen ovale and ductus arteriosus. The completion of the process is, in by far the greater number of cases, within the first six weeks; and the instances of obliteration of this or that duct before birth, or before four to six weeks after birth, are exceptions, of mostly forensic interest. The ductus arteriosus exhibits the process of obliteration by the wrinkling and swelling of the inner vascular coat, commencing usually at the aortic extremity; most rarely at the pulmonary end. In the ductus venosus, the point of commencement is usually towards the vena cava; sometimes towards the umbilicus; most rarely in the middle. The blood coagulates in the ductus arteriosus; the filling up of the tube evidently comes from the thin, smooth lining membrane of the vessel; a structure, resembling an adventitious membrane, may be easily peeled off; it is mixed with blood-discs and fibrinous coagula.—*Henle's Ztschr.* 4, 1852.

OPERATION FOR RETENTION OF URINE IN AN AGED SUBJECT.

By L. AUG. MERCIER.

The muscular valves at the neck of the bladder, after a mechanical obstruction to the flow of urine, were first accurately described by the author, and have since been doubted by no one. He has already related thirty-one cases in which, by incision or excision of the mechanical obstruction, the inconvenience was removed, and he has since had ten cases, in which, with one single exception, a similar good result ensued. He directs attention to the prostatic valves, caused by enlargement of the middle lobe, which may give rise to the same results. At first, M. Mercier recommended simple incision of the muscular valve, until he convinced himself that such a measure was not sufficient; then he used an instrument like a lithotrite, to extirpate a bit of the muscular valve. He laid this instrument before the Society of Anatomy in 1839, and improved it in 1850, so as to render it yet more efficient in taking out a portion of the valvular fold. Nevertheless, he convinced himself, since 1850, that even this instrument was insufficient in certain cases, namely, where the muscular valve had a broad base, or was pedunculated, or solid like a tumour; and this he verified in the body of a patient who died of disease of the kidneys; the valves and the swelling were not divided sufficiently far towards the base. The following improvements have been recently constructed:—The extremity of the male portion of this lithotrite-looking instrument is scooped out into a window, in which falls a sharp hook, which can be thrust through the base of the tumour. The hook, which follows the female piece of the instrument, passes forwards as the blades are separated, and transfix the valve, which can then be dragged forwards upon the curve of the hook as the apparatus is slightly withdrawn. The incision can then be satisfactorily made. The author arrives at the following conclusions:—

Retention of urine depends upon two forms of valvular obstructions; one formed by muscles, the other by hypertrophy of the prostate. The first occurs in youth as well as in maturity; the second belongs exclusively to old age. The first kind the author first proved; the second he has elucidated, and has proposed a rational operation for its cure.

Incision and excision usually suffice to relieve the obstructions caused by the muscular valves. Enlargements of the prostate demand almost invariably the employment of the instrument here mentioned, provided with the perforating hook.

The operations of incision, excision, and extirpation, as performed by the author, are free from danger; advanced age and debility do not contra-indicate the operation.

With the instrument, the author has cured eight old men, who were considered beyond the reach of surgical skill.—*Gaz. de Paris*, 50, 51, 52. 1852.

COLD AN ANÆSTHETIC AGENT.

By Dr. ARNOTT.

We quote Dr. Arnott's discovery, as reported in Schmidt's *Jahrbuch*, 1853, because it sometimes happens that important discoveries made at home, acquire their proper importance when they have been duly recognised abroad. After a comparson between ether and chloroform on the one side, and extreme cold on the other, the author arrives at the following results:—Cold affects, as an anæsthetic, only external parts; as, however, many operations are confined to the surface, its use here is undoubted. There is no danger of sudden death; there is no fear of re-action, as feared by Dr. Berry; rather, inflammatory action is kept

down. The patient can assist the surgeon by his concurrence.—*Dublin Med. Press*, 1852.

We lately witnessed the employment of cold as an anæsthetic, in St. Bartholomew's Hospital, upon a patient suffering from chronic inflammation and enlargement of the knee-joint. A bag of pounded ice was applied for about four minutes by Mr. Lawrence, over the swollen part; then, with a heated knife, six or more long incisions were made by the side of the patella, extending through the skin and subcutaneous tissue. The patient suffered no pain whatever. The counter-irritation effected a marked diminution in the swelling, which was of a character sufficiently grave to suggest the idea of the possible necessity of amputation of the limb. The case, when complete, may be recorded in another part of the Journal.

PROVINCIAL CORRESPONDENCE.

SCOTLAND.

DOINGS IN THE NORTH.

Edinburgh, May 13, 1853.

As my long silence has probably prepared you to expect, not much of interest has occurred in our Northern Metropolis since I last wrote you.

Two meetings of the Medico-Chirurgical Society have been held, but more potent attractions proved irresistible on the night of meeting of the former (20th April), and the bill of fare at the latter (6th May) did not prove attractive. A *soirée* to Mrs. Beecher Stowe, and an entertainment of a more substantial and less public kind, wiled away a large number of the members on the 20th April, and observation forces me to declare, that they looked infinitely better humoured, and were much more entertaining around the social board, than on the benches of the Medico-Chirurgical Society. Two circumstances, however, which occurred that evening have been much canvassed in the Profession: the first, a good-natured allusion by Dr. W. T. Gairdner to my reference to him in my last, and, secondly, what was considered an injudicious, uncalled for, and meaningless attack made on him by Dr. A. Wood. What had provoked that gentleman it is not easy to say; but, if report say true, he forgot altogether the discretion with which he usually tempers the stern stuff in which he sometimes indulges. I am sorry that the circumstances to which I have alluded prevent me from giving you a fuller account of his passage of arms.

The meeting of the 6th instant was chiefly occupied by a singularly tedious, uninteresting paper on Heart Disease, by Dr. Douglas. The Author had come before the Society insufficiently prepared to do himself justice, and seemed equally unable to collect his thoughts and his papers.

Last week, Dr. Mackenzie again excised the knee-joint before a crowded theatre. Most of the Profession were present, and could not fail to observe the coolness, self-possession, and dexterity of the operator.

After the conclusion of the operation, he sought to confirm his own opinion of its propriety, by stating the result of a visit he had paid to Jersey, to see the cases operated on by Mr. Jones there. His statement of the result was most encouraging; and, I am bound to add, as this is the first time I have seen Mr. Mackenzie in the operating theatre, that his clear and gentleman-like way of explaining the grounds on which he undertook the operation, and the manner in which he executed it, impressed me agreeably in his favour. Among the distinguished surgeons present, I failed to see Mr. Syme, and much regret was expressed at his absence. He must, himself, have felt disappointed, if any unavoidable engagement prevented him from witnessing the success of his old pupil, Mackenzie. It must be a source of great enjoyment to so distinguished a surgeon as Mr. Syme, that long after he is, in the ordinary course of nature, gathered to his fathers,—the admirable lessons in surgery which he has taught, far more by example than by precept, will be practised in all parts of the world by a numerous band of intelligent disciples; and that, thanks to his excellent training, his native city will not want a surgeon on whom his mantle may worthily descend.

On Saturday last the grave closed over one whom his friends will long remember with peculiar affection. Dr. John Scott raised himself to the eminence of one of the first consulting physicians in Edinburgh by the force of talent alone. Retiring, and almost recluse in his habits to society in general, he was known and appreciated by a chosen few, and of these he possessed the entire heart. His ardent cultivation of medical knowledge was dictated more by the natural bias of his mind, and by his love of science for its own sake, than by a desire for professional distinction, though the latter came unbidden. Unselfish in his character, and kindly and affectionate in his nature, he had no enemies among his brethren; and although, in his history, there were circumstances that taught us, that, however talented and accomplished, man is, after all, stamped with the image of mortality, and is of the earth, earthy; yet the confidence reposed in his judgment, alike by the Profession and the public, affords the clearest demonstration of, and testimony to, the sterling worth of his character.

Encouraged by the success which is reported to have attended the application of the University of London to have a Representative in Parliament, our Edinburgh Professors are bestirring themselves in favour of a similar privilege.

There can be no doubt that, were but a change in the law to secure that science and literature should be more adequately represented in the House than it has hitherto been, such a change would be desirable; but it is much to be feared, that the only tendency of such a change would be to introduce the new element of politics into the comparative quiet of our academic groves,—not much, certainly, to their advantage.

The state of the chair of Natural History in our College is exciting much attention. The present venerable incumbent, who has held it for half a century, is now completely incapacitated, by age and infirmity, from officiating, and has for some time relied on the assistance of his colleagues for the discharge of its duties.

Such a state of matters cannot fail to be most injurious to the interests of the University; and great surprise is expressed, that the patrons do not require that a class which, from the extent of emigration, and the fresh and almost daily discovery of mineral treasures in our colonies, is of such vast and increasing importance, shall be vigorously and efficiently conducted.

GENERAL CORRESPONDENCE.

THE REFORM BILL OF THE PROVINCIAL ASSOCIATION.

[To the Editor of the Medical Times and Gazette.]

Sir,—I request you will give an authoritative contradiction to that part of a speech reported in your last Number as having been delivered by Mr. Hastings, at a meeting of the Metropolitan Counties Branch of the Medical and Surgical Association, wherein it is stated, that the Faculty of Physicians and Surgeons of Glasgow had ceased to oppose the Medical Bill of the Association.

I am, &c. A. D. Anderson, M.D.,
Glasgow. President of the Faculty.

HOSPITAL STATISTICS.

[To the Editor of the Medical Times and Gazette.]

Sir,—I have read, with much interest, your remarks on the incredible number of out patients reported as having been relieved during one year in the six largest hospitals of London.

You are sceptical as to the accuracy of the statistics; and your doubts do not appear unreasonable.

The attention, however, of the authorities of hospitals having thus been drawn to the opinions entertained with reference to their published statements, you will doubtless look for some remarks confirmatory, or in explanation of the accounts above referred to.

On turning to the numbers, as stated in your Leading Article, I confess myself astonished at the vast disproportion between the total numbers of out-patients relieved at the three first and those relieved at the three last hospitals in your selected examples. Thus, while at St. Bartholomew's, St. Thomas's, and Guy's, the numbers are, respectively, 85,000, 57,200, and 40,000, they suddenly drop, in the case of the London, the Westminster, and the Middlesex, to 16,403, 14,000, and 12,000, respectively; and, when I consider the amount of labour and trouble involved in the reception and treatment of the comparatively small proportion of cases placed to the account of the London Hospital, my surprise, with reference to the larger numbers, is, to say the least, in no degree diminished.

Your object is, doubtless, the attainment of truth—of a clear and candid explanation of the mode in which those departments of hospitals, giving rise to such weighty statistics, are actually managed. Of the plan on which the patients are registered, or the accounts kept, at other hospitals, I know nothing; but it shall be my endeavour, as briefly as possible, to give you, with reference

to the London Hospital, the explanation which the character of your strictures, the credit of this Institution, and the cause of truth, alike appear to demand.

I start, then, by stating, that your figures (16,403) apply to the year 1850; the number of out-patients treated in the past year (1852) was about 1,500 more, viz., 17,917.

I must request you to bear in mind that these (say, in round numbers) 18,000 registered out-patients are exclusively cases recommended by governors, or accidents. They are pure out-patients, and not common casualty cases. In addition to these registered out-patients, many thousands of trifling casualty cases apply for relief at this hospital which are never registered at all. No casualty is registered unless sufficiently severe to require continuous treatment, in which case an out-patient ticket is given, and the patient is, of course, registered.

With reference to the cases sent by governors, the limited number allowed to each subscriber is a sufficient check upon the indiscriminate recommendation of trifling or unworthy cases; while, with regard to our accident out-patients, a glance at the statistics of accidents sent herewith will enable you to judge for yourself of the legitimate character of this portion of our out-patients.

The tickets of out-patients at this hospital are not renewed till the expiration of two months; and after a second renewal, (as a check upon the desire, which, strange to say, sometimes exists, to continue in attendance longer than may be actually necessary,) no further renewal is allowed, except by special certificate of a medical officer of the hospital, nor can such patients be again entered for treatment here till after the lapse of six months, except as cases of accident or suffering from a fresh disease.

And now, as to the staff and the accommodation necessary in order to the successful treatment of this comparatively small number—these 18,000 out-patients. This is, in truth, no slight matter. With waiting halls, the most convenient and commodious (as I am informed) in London, and with the staff I am about to mention, the management of this department has often been to the Committee a source of no trifling anxiety. To attend to these out-patients the utmost efforts of the following officers and servants, are taxed for several hours daily, viz., 1 physician, 1 surgeon, 3 dressers, 2 dispensers, 1 clerk, 2 porters, and 2 nurses, and on one day in every week an obstetric physician also attends at the hospital, to whom is committed the charge of all cases in his particular department.

Pardon me for here especially referring to the fact, that this staff is required to attend to the registered out-patients, who alone make up our numbers. A separate staff in the receiving room takes charge of those casualties which are never registered, and this consists of 1 house-surgeon, 2 dressers, 1 surgery beadle, and 1 nurse.

On reference to our annual Report, (sent herewith,) you will observe, (at page 18,) that the out-patients in 1848 were more numerous than at present, exceeding at that time 20,000. This is still (comparatively) a small number; and yet, with all our facilities, it was found to tax too severely the powers of the medical attendants and the capabilities of the hospital itself, and either increased accommodation, combined with increased attendance, or a diminution of numbers, was palpably necessary. The latter alternative was adopted, and by a more strict limitation of the numbers sent in by Governors, with other collateral restrictions, a considerable reduction was, in the course of the following year, effected.

But the increasing density of population, and the abundance of labour, frequently of a hazardous character, are sources of disease and accident beyond the reach of artificial regulations or control; and our numbers have again crept onward till they now verge, as we have seen, closely on 18,000 per annum. And, in the case of the London Hospital, can this number of out-patients be in any respect a matter of surprise? Fixed in the centre of the Tower Hamlets, with a population exceeding, I believe, 500,000—a population, in density, equalled, I presume, by that of no other portion of the Metropolis, and far surpassing that of any other district in its liability to severe and appalling accidents, receiving, moreover, the sick and injured from the populous district of Stratford, and from a great portion of the counties of Essex and Hertford, it becomes, as you will, no doubt, acknowledge, rather a matter of astonishment, that the London Hospital contributes so small an item to the astounding totals of disease and casualty, which gave rise to your critical remarks, and which have induced me to offer these few plain facts on behalf of the Institution to which I am attached.

I can only add, that, should you desire explanation as to any points left unnoticed, I shall be most happy to give it; or, in the event of your wishing to look into these matters for yourself, every opportunity shall be afforded you for making your personal investigations.

I am, &c. WILLIAM J. NIXON,
London Hospital. Secretary.

THE ENFRANCHISEMENT OF THE UNIVERSITIES.

[To the Editor of the Medical Times and Gazette.]

SIR,—I observe from reports in the daily and weekly press, that the Graduates of the University of London are exerting themselves most strenuously to obtain the enfranchisement of their alma mater. It seems very probable they will succeed. Many and influential are the persons who have taken up their cause. Justice and expediency agree in the wisdom of the measure; and it is confidently expected, that next session, among the reform propositions of the Government, the representation of the University of London will occupy a prominent place. I for one, Sir, wish every success to the cause; but I do think the claims of older, and, judging from the men they have sent forth into the world, more illustrious Universities are somewhat neglected. The four Universities of Scotland are each a little older than that of London, and can boast of names the most celebrated in every department of literature and science. Take, for example, Edinburgh, where have been educated, either altogether or in part, Lansdowne, Palmerston, and Brougham; Walter Scott, Jeffrey, and Thomas Carlyle; Williams, Locock, and Southwood Smith, in our own profession; and many others too numerous to be mentioned. Surely, Sir, she is not deficient in names known throughout the civilized world as men of the highest ability. The Graduates of these Colleges are, one would imagine, possessed of equal intelligence with those of any other in Europe, and are fit and proper persons to exercise the elective franchise. Besides, England has two Universities represented in Parliament, and Ireland one; might not, then, Scotland reasonably expect that some small share should fall to her lot. I would propose, that Edinburgh and St. Andrew's should return one Member, Glasgow and Aberdeen another. This would give Scotland two University representatives; if the claims of London were allowed, England would have five, and Ireland has two,—this appears to me a very fair proportion. Allow me, Sir, in conclusion, to entreat you to give to this proposal your attentive consideration, and I am certain you will arrive at the conclusion, that nothing can be more just, desirable, and practicable.

I am, &c. STUDENS ANGLICUS.

THE COLLEGE OF PHYSICIANS, AND ITS EXTRA-URBEM LICENTIATES.

[To the Editor of the Medical Times and Gazette.]

SIR,—As you profess to hold the balance with an even hand between the College of Physicians and its Licentiates Extra-urbem, although I think that the observations on the latter body, in your leading article of Saturday last, are harsh and injurious, I feel that I may claim the insertion of a few remarks on the question at issue.

I will not now enter at large on the subject of the difference of the examination, *quoad* the Examiners, between the two classes of Licentiates, although I might be prepared to maintain that it ought not to be similar, nor, in the scholastic sense, equally strict; the one being intended to test the qualifications of young physicians starting on their Professional career, with but little practical experience, although brim full of imparted knowledge; the other applicable, for the most part, to those whose elementary teaching may have been in some degree forgotten, but who have, nevertheless, endeavoured to keep pace with the great stream of medical science, and who have added thereto that information which can only be acquired by the observation and responsibilities of daily practice, extended over many laborious years.

This last description does not, I am aware, apply to all the Licentiates Extra-urbem, but it does to a large number of them; and, if the ability to treat disease with success be the test of the value, either of education or examination, I fearlessly assert, that men such as these need not shrink from such a test, or from a comparison with any of their brethren.

But what are the facts, and what the grievance, as regards the Extra-urbem Licentiates and the College?

Provincial physicians, being Graduates of British or other Universities, were invited some years ago, (nay, threatened if they did not comply,) to join the ranks of the College, and many of them did so, being contented with the Extra-urbem licence, as giving the legal right and less costly. Many General Practitioners, also, induced by various motives, some seeking an honourable retirement from more active toil, and others who had acquired extensive consultation practice in the provinces, wishing to have a legal right to act as physicians, yet having no desire to go to London, took the same step, each and all believing, without looking into the petty distinctions now so much dwelt on, that, having produced proper

testimonials, and passed what they were told by the College authorities would be "a fair practical examination," they were legally admitted into the honourable position of British Physicians, without any kind of disparagement, and subject to no other condition than that of not trespassing within that magic circle of seven miles, in which are so vigilantly guarded the golden apples of the Profession.

It appears from a letter of Dr. Laycock, recently inserted in this Journal, that about 4000*l.* sterling has been thus received, within the last few years, by the College,—I say, by the College, because it is more than absurd to turn round now upon the Extra-Licentiates and say, that this money has been received by the Elects only, and has not gone to the general fund; for, who are the Elects? Are they not Fellows of the College, chosen by the College; and, if incapable of testing the fitness of candidates, by a suitable examination, removable by the College? With whom, then, I ask, is the shame? And is it not a scandal, if what you assert be true, that "the College appears now to be somewhat ashamed of its Extra-Licentiates? and if it now treats as aliens those whom it is bound, in fairness at least, if not by law, to uphold and protect?

Still, I, for one, sincerely hope, that the College may obtain *a* Charter,—much good may accrue, both to the Profession and the public, from one framed in a just and liberal spirit; and, to be just and liberal, such a Charter should admit all the present Licentiates Extra-urbem as members, on payment of a small sum towards the cost of obtaining it, (five guineas, as named by Dr. Hawkins, in his reply to the remonstrance of Dr. Beamish, would not probably be objected to, or fifteen by any of us who might wish to practise in London;) and it should provide, that, in a Society presumed to consist of men of science and of gentlemen, and whose number will readily admit of such an arrangement, every member should have a vote; and that vote by proxy for those who reside beyond a moderate distance from London, in the election of the governing body by whom his interests are regulated and controlled.

I am, &c.

A Licentiate Extra-urbem of the Royal College of Physicians.

P.S. I believe that you are mistaken when you assert the infrequency of the rejection of candidates for the Extra-licence. I can vouch, at least, for the fact, that, on one occasion, out of three who went up to be examined, two were rejected.

REPORTS OF SOCIETIES.

MEDICAL SOCIETY OF LONDON.

Dr. Forbes Winslow, President, in the Chair.

ON DEATH FROM CHLOROFORM.

Dr. Crisp read a communication on the recorded deaths from chloroform up to the present time. The table consisted of forty-cases, and Dr. Crisp believed many deaths were unpublished. The points to which the author chiefly referred were—the uncertain effects of this agent, its cumulative properties, the youth and good health of most of the patients, and the consecutive influence of the drug.

Dr. Snow said, that the recorded cases of undoubted death from chloroform were about thirty, and that Dr. Crisp had included several cases in which death occurred some little time after the conclusion of severe operations, and in his, Dr. Snow's opinion, was not caused by chloroform. Two or three deaths had occurred in cases where chloroform had previously been applied; but the former application had nothing to do with the accidents which generally resulted from the air being too highly charged with vapour at the time of the fatal result. It was important to bear in mind, that the effects of chloroform might accumulate for twenty or thirty seconds, on account of the absorption of the vapour existing in the lungs at the moment when the inhalation was discontinued; but beyond this, he knew of no consecutive or secondary effects, except sickness in some cases, and a degree of depression attending the sickness. He had administered it two or three times a day, both to infants and adults, for two or three weeks, without its preventing the health from improving during the whole time, and, consequently, there was no danger in its repetition. He did not agree with Dr. Crisp, that accidents from chloroform occurred without apparent cause; and he was confirmed in this view by experiments on animals, for, when the quantity of vapour in the air they breathed was accurately determined, the effects were always such as he expected. With respect to the chloroform acting chiefly on the nerves of the heart, this was true only when the vapour was in a too-concentrated form. When properly diluted, the heart was the last organ to be acted on; and, when animals were killed with it gradually, the heart continued to beat for a minute or more after the breathing had ceased. Extremely few accidents had happened in the hands of those persons who were in the habit of giving chloroform in a great number of cases, and he was of opinion, that with great care and a good knowledge of its effects, this agent might be administered with perfect safety in all but a few rare cases in which there is such an extent of disease of the heart, that an operation would be unsafe without chloroform. The fact, that no accidents from chloroform had happened in midwifery was not due to any peculiar condition of the nervous system or constitution of the patient, but to these two circumstances, that a very much slighter effect required to be produced, and that the removal of the pain which existed when it was administered was an indication for its immediate discontinuance not present anterior to an operation.

Dr. Druitt exhibited the uterus and ovaries of a young woman, aged 23, who had poisoned herself, apparently just at the commencement of menstruation. The uterus contained blood mixed with epithelium; the Fallopian tubes were excessively congested; the left ovary presented at its upper margin a large Graafian vesicle, which had apparently been just ruptured, presenting a roundish irregular aperture; it was capable of holding a horse bean, and was lined by an intensely vascular membrane. In the same ovary were remains of other previously ruptured vesicles, exhibiting the vascular membrane in a shrunken state. The right ovary was throughout preternaturally firm and yellowish: at its upper margin was a good specimen of false corpus luteum, consisting of a ruptured Graafian vesicle, filled with blood clot, and enclosed within a yellow puckered membrane. The parts were so decomposed as to render a search for the ovum unavailing.

Mr. Greenhalgh read a paper upon

CRANIOTOMY IN EXTREME DISTORTION OF THE PELVIS.

After pointing out the serious nature of the operation, he detailed the case of a dwarf, 25 years of age, four feet in height, and much distorted by rickets, upon whom craniotomy had been twice performed on account of great pelvic distortion, on the first occasion at the full term of pregnancy, on the second at seven months and a-half of utero-gestation (at which period premature labour spontaneously set in), followed on each occasion by such severe inflammatory attacks as to threaten her life. The peculiarity of the author's case was that the patient, when informed that no living child could pass through the natural passages, positively refused, upon conscientious grounds, to submit either to the induction of abortion, premature labour, or any operation which might endanger the life of the child; consequently, it was determined, with the concurrence of several eminent obstetricians, that the Cæsarian section should be performed at the full period of pregnancy, shortly after the commencement of labour. The author, after some observations upon the induction of abortion, premature labour, turning, and the application of the long forceps in distortion of the pelvis, cited Case 35, in the Second Report, second edition, of Dr. Robert Lee's "Clinical Midwifery," as illustrative of the difficulties and dangers of craniotomy in great pelvic contraction. Having pointed out the painfulness and hazard to the mother of craniotomy in such cases; the too frequent destruction thereby of the child; that the mortality from the Cæsarian section was due rather to the delay in its performance than to the operation itself; that the rate of maternal mortality had been progressively decreasing; and that great strides had been made of late in our knowledge of abdominal surgery, the author expressed his opinion, that where the dangers from these two operations are so nearly allied, as in cases of extreme deformity of the pelvis, it is the bounden duty of the obstetrician to endeavour to save the child's life by the performance of the Cæsarian section.

Several Fellows took part in the discussion, after which the Society adjourned.

Dr. Cogswell exhibited a portion of the intestine of a boy, 2½ years of age, who had died from intussusception. On the morning of the 20th of April, the bowels having been relieved, the child went to school apparently well, but at noon, while returning home, he was seized with vomiting, and presently gave evidence of suffering from severe abdominal pain. Under the use of fomentations and aperients there was no discharge from the bowels, and death took place in forty-five hours, preceded about half an hour by a convulsion. On examination the third day after death, the ileum was distended with flatus and pale, until about

four inches from the colon, when it became dark red. Within the colon, close to the ileo-cœcal valve, a soft solid body was felt, about the size of a fowl's egg. This, on being exposed, proved to consist of the terminal portion of the ileum, inverted to the extent of about three inches, deeply plicated, and in a high state of sanguineous congestion. An ovoid form was produced by the extremity of the impacted bowel being recurved towards its base, the orifice being thus completely closed by apposition with the superior folds of mucous membrane. A small quantity of bloody mucus was found in the colon.

UNIVERSITY OF LONDON.

NEW CHARTER.—MEETING OF GRADUATES.

The Sixth Annual General Meeting of the Graduates of the University of London was held May 3, at the Freemasons' Tavern, for the purpose of re-electing the Committee, hearing the Report of the proceedings during the year, and determining upon the course to be pursued at this critical moment in the history of their agitation.

After the usual balloting, the following Resolutions were passed:—

"That this meeting of the Graduates of the University desire to express their thanks to the Senate for its communication to the Secretary of State, appearing in its Minutes of the 20th of April ult., and, on their own part, declare their anxious wish to adopt, as far as possible, that communication as the basis of the future constitution of the University; but they are unable to form a decided opinion upon the entire scheme of its recommendations until the practical arrangements by which it is proposed to be carried into effect are more fully stated."

"That although the Graduates cannot but think that a voice in the nomination of the Senate should on principle, and might with advantage, be entrusted to them—especially remembering that the affairs of Oxford and Cambridge are entrusted to their own Graduates exclusively—yet, if upon further advice, the Senate should adhere to the views expressed in their letter to the Secretary of State, this meeting authorise their Committee not to press that portion of their claim as part of the present arrangements."

"That the Graduates cannot, without more mature advice, consent to the abandonment of so important an element of their claim, as appears to them to be involved in their permanent exclusion from the corporate body of the University; and they refer to the most serious consideration of their Committee, whether there are any difficulties which, in themselves, are of a nature to require such an exclusion; and, should such difficulties appear to them to present themselves, whether means may not be devised for obviating them."

"That this meeting having regard to the greatly extended character and increased importance of the operations of their Committee, call upon all Graduates to aid them by personal exertions and subscriptions to the general fund, leaving it to the Committee to contribute specially on their behalf in aid of the franchise movement."

"That this meeting desire to thank the Senate for their representations to Her Majesty's Government respecting the inadequate accommodation of the University, and earnestly trust that a state of things, officially declared in 1847 most seriously to impair the efficiency of the examinations and the reputation of the University, will no longer be allowed to continue."

THE NEW MEDICAL REFORM BILL.

DEPUTATION TO LORD ABERDEEN.

On Thursday week, a Deputation from the Provincial Medical and Surgical Association waited on Lord Aberdeen, at his official residence in Downing-street.

The Deputation consisted of Sir Charles Hastings, M.D., D.C.L., President of the Council of the Association; Dr. Robertson, M.D., of Northampton; Dr. Webster, M.D., of Dolwich; Mr. Nunneley, F.R.C.S., of Leeds; Mr. Noble, F.R.C.S., of Manchester; Mr. Bottomley, F.R.C.S., of Croydon; Mr. Walsh, F.R.C.S, of Worcester; Mr. Southam, M.R.C.S, of Manchester; Mr. Cartwright, M.R.C.S., of Oswestry; Mr. Bree, M.R.C.S., of Stowmarket; Mr. Stedman, M.R.C.S., of Guildford; and Mr. Hastings, barrister, Secretary to the Committee.

Sir Charles Hastings read the following statement:—

"My Lord,—We appear before you as the representatives of the Provincial Medical and Surgical Association,—a Society consisting of nearly 2,000 members, and instituted for the advancement of medical science. The members are chiefly Physicians and Surgeons residing in the provinces and in Scotland. The Society has been more than twenty years in existence, and has regularly published transactions, and has maintained a journal for the dissemination of its views.

"We have had forced on our attention the incongruous and confused state of the Profession, which presents a great obstacle to the advancement of Medical science.

"There are no less than nineteen different sources from which licences to practise can be derived, and hence arises an utter want of uniformity in Professional qualification.

"This evil the Society have steadily endeavoured to remedy, and they have for twenty years been engaged in the endeavour to improve the organisation of the Profession.

"They early established certain principles which should guide them in their attempts; these were—

"Uniformity of qualification,

"Equal right to practise throughout Her Majesty's dominions, and the establishment of the representative system in the formation of the governing bodies. These views have been repeatedly brought forward in petitions to Parliament, in memorials to Government, and in public discussions.

"Sir G. Grey encouraged us with the hope, that if any measure should be brought forward, in which there was a concurrence of sentiment, Government might be induced to lend assistance.

"This induced the Association, with the assistance of a barrister, Mr. Hastings, to frame a Bill embodying the principles which they have so long advocated.

"This Bill has received an unparalleled amount of support from the Profession both in England and Scotland, and we are able to speak of it as one which embodies, on the whole, the views of the Association and of the Profession at large. At the same time we shall be ready to concur in any alterations that the Government may think fit to introduce into it, provided they are in harmony with the principles of the Bill. With this view we requested the honour of an interview with Lord Palmerston, and on that occasion, the Committee of the Association, accompanied by the Presidents of the Colleges of Physicians and Surgeons of Edinburgh, and by more than fifty Members of the House of Commons, presented the Bill to His Lordship. Since that date, we have received a letter from the Home-office, stating His Lordship's hope, that a measure of Medical Reform may be introduced into Parliament this session, and we believe that His Lordship approves of the object of the present Deputation.

"The Bill contemplates the appointment of a Council to regulate the education of the Profession; a Board of Examiners, before whom every candidate for practice will have to appear; and a system of registration which will embrace all qualified practitioners.

"We now, therefore, my Lord, come to submit the Bill to your Lordship, as the First Minister of the Crown, as one eminently calculated to promote the welfare of the Profession, and of the public at large. We earnestly request your Lordship to enable it to pass into law during this session of Parliament, in order to stop the agitation which will otherwise assuredly continue.

"We implore your Lordship to put an end to the evils which must result, as every reflecting mind can perceive, from the present order of things, and to place the Medical Profession in a position, not only worthy of its own character, but one calculated to enable it to confer the greatest possible amount of benefit on the community at large.

"We have, in conclusion, to request your Lordship that, before the Government introduce a measure of Medical Reform into Parliament, they will previously allow the Committee, through their secretary, Mr. Hastings, an opportunity to consider the Bill."

Mr. Wakley wished to impress on Lord Aberdeen, that the present moment was most favourable for the object which the Deputation had in view; and that, if the Government would now take up the measure, its success was certain.

Mr. Cowan, M.P. for Edinburgh, expressed the strong feeling which his constituents entertained in regard to Medical Reform, and the warm support they gave to the Bill of the Association.

Mr. Nunneley said, that the Medical Profession were especially anxious for a system of registration which might distinguish qualified practitioners from such men as those who had been recently figuring in police reports, and who cast a slur on a Profession to which they did not really belong.

Lord Aberdeen said, that he fully appreciated the importance of the Association, and the objects which they had at present in view. He should be most happy to afford them every facility in his power, and, unless some unforeseen obstacles should arise, he hoped to be able to carry out their wishes. The Deputation, after thanking His Lordship, then withdrew.

PRESENTATION FOR DEGREES AND HONOURS, AND THE DISTRIBUTION OF PRIZES.—1853.

UNIVERSITY OF ST. ANDREWS.

DEGREE OF DOCTOR OF MEDICINE CONFERRED 6TH MAY, 1853.

W. Field Bellin, M.R.C.S. and L.A.C., Great Yarmouth.
Frederic James Chaldecott, M.R.C.S., Dorking, Surrey.
Henry James Collet, M.R.C.S. and L.A.C., Worthing, Sussex.
Clarence Coopor, M.R.C.S. and L.A.C., Brentford, Middlesex.
F. C. Cory, M.R.C.S. and L.A.C., London.
J. Davidson, M.R.C.S. Edin., R.N.
Jose Maria De Mier, M.R.C.S., London.
Thos. George Dixon, M.R.C.S. and L.A.C., Northwich, Chesbire.
J. Ewart, M.R.C.S., Guy's Hospital, London.
John Gallagher, M.R.C.S., R.N.
Henry Joseph H. Griesbach, M.R.C.S., and L.A.C., King's College, London.
Rich. Savill Hanbury, M.R.C.S. and L.A.C., Mirfield, Yorkshire.
W. Harrison, M.R.C.S. and L.A.C., Yorks.
R. C. Heighway, L.F.P.S. Glas., Shrewsbury.
J. Hilliard, F.R.C.S. and L.A.C., H.E.I.C.S., Bengal.
Thomas James Holmes, M.R.C.P., M.R.C.S., and L.A.C., Lyme Regis, Dorsetshire.
Edward Jones, M.R.C.S. and L.A.C., B.A. Paris, Dover, Kent.
John Livy, M.R.C.S. and L.A.C., Bolton le-Moors.
Draper Mackindor, M.R.C.S. and L.A.C., Gainsborough.
Henry Montford, M.R.C.S. and L.A.C.I., Douglas, Isle of Man.
James Nicholls, M.R.C.S. and L.A.C., St. Columb, Cornwall.
A. G. Power, M.R.C.S. and L.A.C.I., Lond.
W. H. Rean, M.R.C.S., H.E.I.C.S., Madras.
A. C. Ross, M.R.C.S., M.B., Inverness.
Hugh J. Sanderson, M.R.C.S. and L.A.C., London.
Benjamin Simpson, M.R.C.S., B.A. Trin. Coll., Dub., H.E.I.C.S., Dublin.
John Tibbits, M.R.C.S., Warwick.
G. L. Thomson, M.R.C.S.Ed., Coldstream.
H. Turner, M.R.C.S.I., Clonakilty, Co. Cork.
J. Haydon Ward, L.A.C., Epsom, Surrey.
H. L. Williams, M.R.C.S., Denbigh, North Wales.
Andrew Wynter, London.

LONDON HOSPITAL MEDICAL SCHOOL.

Hospital Gold Medals presented by the Governors for zeal, intelligence, and humanity in attendance on the patients in the wards.—Medical, R. W. Jenkins, London; Surgical, H. K. Debenham, Dalston.

Medicine.—Senior Class.—Gold medal, H. K. Debenham; honorary certificate, R. W. Jenkins. Junior Class.—Silver medal, James Edmunds, Burnham; honorary certificate, John Langstoo, Grantham.

Surgery.—Senior Class.—Gold medal, H. K. Debenham. Junior Class.—Silver medal, John Langston; honorary certificate, Edward Crossman, Friezowood.

Anatomy.—Senior Class.—Gold medal.—Jas. Edmunds; honorary certificate, Riners Mantell, Bittoo. Junior Class.—Silver medal, Edward Crossman; honorary certificate, Lewis Oppenheim, Finsbury.

Midwifery.—Gold medal, H. K. Debenham; hon. certificate, J. C. Robertson, Purbrook.

Chemistry.—Silver modal, R. Mantoll; 2nd silver medal, G. Poole, Newland.

Materia Medica.—Silver medal, J. Edmunds; hon. certificate, J. Porter, Rotherhitho.

Botany.—Silver medal, J. Langston; hon. certificate, R. Mantell.

Forensic Medicine.—Silver medal, H. K. Debenham; hon. certificate, J. R. Tunmer, Ipswich.

MIDDLESEX HOSPITAL SCHOOL OF MEDICINE.

WEDNESDAY, MAY 4, 1853.

MEDICINE.—(Dr. Crawford and Dr. Thompson.)

Prize.—Mr. Joseph Burn, London.
Certificate.—Mr. Edward Vernon, London.
Mr. William Lucy, London.

SURGERY.—(Mr. Shaw.)

Prize.—Mr. Henry Cooper Rose, Canterbury.
Certificate.—Mr. Robert Hall Bakewell, Waltham Abbey.

PHYSIOLOGY.—(Mr. De Morgan.)

1st Prize.—Mr. Robert Hall Bakewell, Waltham Abbey.
2nd Prize.—Mr. Horatio Edsall, Truro.
Certificate.—Mr. Joseph Burn, London.

ANATOMY.—(Mr. Mooro.)

Prize.—Mr. Henry Cooper Rose, Canterbury.
Certificate.—Mr. E. S. Collins, Sherborne.
Mr. C. Hemming, Kimbolton.
Mr. Joshua Plaskett, Louth.
Mr. L. S. Bruce, Twickenham.
Mr. Robert Hall Bakewell, Waltham Abbey.
Mr. Lloyd Herbert, St. Mary, Bourne.

PRACTICAL ANATOMY.—(Mr. Nunn and Dr. Van der Byl.)

Prize.—Mr. Lewis S. Bruce, Twickenham.
Certificate.—Mr. H. C. Rose, Canterbury.
Mr. Robert Hall Bakewell, Waltham Abbey.
Æq. Mr. L. Herbert, St. Mary Bourne.
Mr. C. Homming, Kimbolton.
Mr. Henry F. Marley, London.
Mr. Joshua Plaskett, Louth.

CHEMISTRY.—(Mr. Taylor and Mr. Heiseb.)

Prize.—Mr. Francis Winter Clarke, London.
Certificate.—Mr. Horatio Edsall, Truro.

Practical Chemistry.—Prize.—Mr. Charles Hemming, Kimbolton.
Certificate.—Mr. Edward Vernon, London.

MIDWIFERY.—(Dr. Frere.)

Prizo.—Mr. Lloyd Herbort, St. Mary Bourne.
Certificate.—Mr. Henry F. Marley, London.
Mr. William Deamer, London.

MATERIA MEDICA.—(Dr. Stewart.)

1st Prize.—Mr. William Deamer, London.
2nd Prizo.—Mr. Henry Stear, Cambridge.

FORENSIC MEDICINE.—(Dr. Goodfellow.)

1st Prizo.—Mr. Wm. Lucy, London.
2nd Prize.—Mr. Edward Vernon, London.
Certificate.—Mr. C. Hemming, Kimbolton.
Prize for Weekly Examination.—Mr. H. C. Rose, Canterbury.

BOTANY.—(Mr. Bentley.)

Prize.—Mr. Chambre R. C. Vigurs, Truro.
Certificate.—Mr. L. S. Bruce, Twickenham.
Mr. Joseph Burn, London.

IN CLINICAL MEDICINE.

Mr. Thomas Dixon, Bodford.

IN CLINICAL SURGERY.

1st Prize.—Mr. H. C. Rose, Canterbury.
2nd Prize.—Mr. Edward Vernon, London.

TREASURER'S PRIZE.

Mr. Henry Cooper Rose, Canterbury.

GENERAL CERTIFICATES.—Messrs. Robert Hall Bakewell, Lewis Stanhope Bruce, Joseph Burn, Francis Winter Clarke, Wm. Deamer, Horatio Edsall, Charles Gray, Lloyd Herbert, John Husband, David King, David Mathias Joshua Plaskett, A. Prince, Wm. Birket Procter, Henry Cooper Rose, Henry Stear, Edward Vernon, C. R. C. Vigurs.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS.—The following gentlemen having undergone the necessary examinations for the diploma, were admitted Members of the College at the meeting of the Court of Examiners, on the 6th inst.:—

DAVIES, JESSE CONWAY, Holywell, Flintshire.
HARRIS, ARTHUR ANTHONY, Wardington, Oxfordshire.
HEMMING, CHARLES, Kimbolton, Hunts.
HERBERT, LLOYD, St. Mary Bourne, Hants.
MATHIAS, DAVID, Cardigan.
RAY, JAMES, Lowestoft, Suffolk.
ROLSTON, PETER WILLIAMS, Devonport.
SUTHERLAND, PHILIP WARREN, H. E. I. Company's Service.
TOUSSAINT, HENRY, Ceylon.
WALLIS, EDWARD SNELL, Dublin.
WATSON, GEORGE ALDER, Scarborough.

COLLEGIATE PRIZES.—From an advertisement in this Journal, it will be perceived that the subject of the Jacksonian Prize, of twenty guineas, for the present year, is "Diseases of the Testis and its Coverings, and their Treatment." The subject of the Collegiate Triennial Anatomical Prize, of fifty guineas, is "The Structure and Functions of the Ganglionic Systems of Nerves in Man, illustrated by references to Comparative Anatomy." Fellows and Members of the College only can compete for these prizes.

APOTHECARIES' HALL.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, May 12, 1853:—

BARROW, JOHN CHARLES, Loughborough.
BELL, WILLIAM THOMAS, Great Grimsby.
BODINGTON, GEORGE FOWLER, Sutton Coldfield.
PINNIGER, BROOME, Westbury, Wilts.
LUCY, WILLIAM, Bristol.
SMART, ROBERT BATH, Balsham, Cambridgeshire.

UNIVERSITY OF GLASGOW.—The Senate of this University has presented an address to the House of Commons, through Mr. Lockhart, complaining of the tax of 10*l.* imposed on every degree of Doctor of Medicine granted by the Scotch Universities. In answer to a question on the subject, the Chancellor of the Exchequer held out hope of a mitigation of the alleged grievance.

APPOINTMENTS.

MEDICAL.—King's College: Lionel S. Beale, Esq., M.B., has just been appointed Professor of Physiology, conjointly with Mr. Bowman, at this Institution.

NAVAL.—Acting Assistant-Surgeons Thomas R. Warren (1853) to the Comus, 14, sloop, at Sheerness; Fleetwood Churchill (1853), to the Nerbudda, 12 brig, at Chatham.

MILITARY.—Hospital Staff: William Tydd Harding, gent., to be Assistant-Surgeon to the Forces, vice Daniell, promoted on the Staff; Constantine Caridi Read, gent., to be Assistant-Surgeon to the Forces, vice Manifold, appointed to the 67th Foot.

MILITIA.—Royal Monmouth: George Wilson, gent., to be Ensign and Assistant-Surgeon. East Kent: James Reed, gent., to be Assistant-Surgeon. Royal Lancashire: James Taylor, gent., to be Ensign and Assistant-Surgeon.

DEATHS.

DAWSON.—On the 18th of May, at Wainfleet, All Saints, Lincolnshire, Edward Dawson, Esq., Surgeon, after extreme suffering from carcinoma of the stomach, which he bore with most exemplary patience, aged 67. Mr. Dawson practised in Wainfleet for forty-three years, where his high professional talents, his benevolence, and affability, made him universally beloved. In addition to his professional acquirements, he was a great proficient in most other sciences; but more particularly music and acoustics.

DOW.—May 5, in his 20th year, lost from a rowing-boat, run down by a river steamer, about 5 p.m., near the Nine Elms-pier, Chelsea reach, William Graham Dow, of 21, Leicester-square, a medical student of King's College, London. The melancholy event has cast a deep gloom over his sorrowing relatives, by whom he is deeply regretted, and lamented by an extensive circle of friends, being a gentleman of high promise and literary attainments. Body not found.

FLETCHER.—May 13, at his residence, Wellington-parade, Gloucester, of paroxysmal apoplexy, William Henry Fletcher, Esq., M.R.C.S. (Eng.) 1832; F.R.C.S. (Hon.) 1843. Mr. Fletcher was a Fellow of the College, and, for many years, was Surgeon to the Gloucester County Hospital, taking the lead as an operator in that Institution, until his state of health compelled him to retire from his public duties. He was a man of excellent heart and generous disposition, and is universally regretted by a large circle of friends.

ROYAL FREE HOSPITAL.—The twenty-fifth anniversary festival of this Institution was celebrated on Wednesday evening, at the London Tavern, Viscount Maidstone in the chair. About 150 gentlemen were present.

DR. REID.—This gentleman, who had had charge of the ventilation of the Houses of Parliament, was removed from his office by the late Government. Dr. Reid, in consequence, claimed compensation, and the Government agreed that his claim should be submitted to arbitration. Dr. Reid claimed the sum of 10,250*l.*, and the arbitrators awarded him 3,240*l.*

YELLOW FEVER.—The Orinoco arrived at Southampton from the West Indies on Wednesday. In the Custom-house boat were Drs. Wiblin and Harvey, the health inspectors. In consequence of fresh instructions from the Privy Council, a long examination of the captain and surgeon of the Orinoco took place while she was at anchor. By that examination it was ascertained that the Orinoco, having only been so far as St. Thomas, fourteeen had been ill on board of yellow fever, and two had died of that disease. Two invalids were brought to the gangway, to be seen by the health inspectors. The Orinoco is placed in quarantine. Telegraphic despatches were then forwarded to the Privy Council, and also to Sir William Pym, of the quarantine department, announcing the state of health on board the Orinoco. She was subsequently released from quarantine.

UNITED STATES.—A train of passenger-cars on the Newhaven Railway was precipitated into the Norwalk River, and 45 persons lost their lives. Many of the persons killed were medical men, who had been guests at a complimentary dinner given at New York, and who were, at the time of the accident, returning to their homes.

THE DISTRIBUTION OF GOLD.—Dr. Percy, of the Government School of Mines, states, that a sensible, and even visible, amount of gold has been extracted from every variety of British and foreign lead, from litharge, red lead, white lead, and acetate of lead, all of which have been carefully examined during a lengthened analytical investigation. A more extended examiuation is about to be made under the superintendence of Dr. Percy.

APPLICATION OF PHOTOGRAPHY TO ILLUSTRATIVE ART.—We are gratified at observing, that the new number of the *Quarterly Journal of Microscopical Science* contains the first direct application of photography to book illustration. One of the plates accompanying this number contains two microscopic figures. The first or negative impressions were obtained on glass plates prepared by the collodion process, and these were subsequently employed for printing—by the sunshine—all the positive copies required. The figures are,—spiracle and trachea of the silkworm, magnified 60 diameters, exhibiting the elastic spiral fibre between the layers of the air vessels; and proboscis of the fly, magnified 180 diameters, showing the divided absorbent tubes. In each, most of the delicate details of structure are well brought out, and the transparency of the fine tissues is beautifully preserved.

PHYSICIANS IN ICELAND.—Mad. Pfeiffer, in her "Journey to Iceland," gives the following not very flattering account of the condition and rewards of the Profession in that country. She says:—"Among the salaried offices, the most laborious are those of the physicians and the clergy. Their circuits often embrace a distance of over a hundred miles. When the doctor is sent for in winter, the country people turn out with shovels and pickaxes to clear the road. They bring several horses with them, so that he may change from one exhausted animal to another during his long rides through the fog and darkness, the snowdrifts and storms. Often as he returns to his own fireside, worn out with cold and fatigue, he finds another summons. He must leave his family and face new dangers, before he has had time to relate the perils he has just experienced. The physicians receive but a small salary; the priests still less."

BEQUEST TO A MEDICAL COLLEGE.—Leissing, a leading German actor, died recently. By his will, he leaves all his fortune, which was considerable, to the charitable institutions of Frankfort. In that document he states, that he has been tormented all his life with the idea of being buried alive; and, in order to avoid any risk of such a contingency, he ordered, that, as soon as his death should be declared by the competent medical authority, his skin should be flayed from his body from head to foot, and that the skin so taken off should be given to the Museum of Natural History of Frankfort. In his will, M. Leissing named the surgeon who should perform the operation, and left a large sum as his compensation. The Museum was applied to, to know whether it would accept so strange a bequest; it replied affirmatively, on condition that the skin should first undergo the treatment necessary for its preservation. The tribunal of Première Instance then sanctioned the will.

MORTALITY IN PUBLIC INSTITUTIONS for the week ending May 14:—

	Males.	Females.	Total.
Workhouses	62	49	111
Military and Naval Asylums	4	..	4
General Hospitals	28	21	49
Hospitals for Special Diseases	3	1	4
Lying-in Hospitals	..	..	..
Lunatic Asylums	1	4	5
Military and Naval Hospitals	5	..	5
Hospitals and Asylums for Foreigners	..	..	..
Prisons	..	..	..
	103	75	178

MORTALITY NOTABILIA.—The mortality of London last week was considerably higher than is usual in the middle of May; but it exhibits a reduction as compared with that of the preceding week. The numbers of deaths registered in the last three weeks were 1089, 1159, and 1099. The mean temperatures in the same times were 42·5°, 47·9°, and 45·3°. The depression of temperature at the end of April was followed by an increase of mortality at the beginning of May. In the ten weeks corresponding to the week that ended last Saturday, of the years 1843-52, the average number of deaths was 934, which, with a correction for increase of population, becomes 1027. Hence the 1099 deaths of last week exceed the estimated amount by 72. On reference to the table of Fatal Diseases, a diminution of greater or less amount will be seen under most of those heads that contribute the largest proportions to the weekly sum. Typhus forms an exception, for the deaths from this disease have risen from 41 in each of the two former weeks to 71 in the last. From hooping-cough, also, the mortality is high, and does not show much disposition to subside; it was fatal to 59 children.

Meteorology.—At the Royal Observatory, Greenwich, the mean

height of the barometer in the week was 29·760 in. The mean temperature of the week was 45·3°, which is 6·6° below the average of the same week in 38 years. The mean daily temperature was below the average on every day of the week, and this depression amounted to 12°, 10°, and 9° on the first three days. The air became gradually warmer, and on Saturday the mean was 51°. The mean difference between the dew-point temperature and air temperature was 7·9°; the greatest difference was 17·4° on Thursday; the least was 2·1° on the same day.

DEATHS *in the Metropolis for the week ending Saturday, May* 14, 1853.

Causes of Death.	May 14. 0	15	60	All Ages.	Sum of Ten Weeks.
All Causes	546	348	204	1099	9338
Specified Causes	543	347	204	1095	9282
1. Zymotic (or Epidemic, Endemic, and Contagious) Diseases ...	174	41	20	235	1870
Sporadic Diseases:					
2. Dropsy, Cancer, and other Diseases of uncertain or variable seat ...	4	20	21	45	452
3. Tubercular Diseases	85	124	3	212	1941
4. Diseases of the Brain, Spinal Marrow, Nerves, and Senses ...	59	30	26	115	1153
5. Diseases of the Heart and Blood-vessels	7	26	16	49	318
6. Diseases of the Lungs and of the other Organs of Respiration ...	108	46	45	199	1365
7. Diseases of the Stomach, Liver, and other Organs of Digestion...	30	25	15	70	603
8. Diseases of the Kidneys, etc. ...	...	10	6	16	92
9. Childbirth, Diseases of the Uterus	...	7	...	7	86
10. Rheumatism, Diseases of the Bones, Joints, etc.	1	6	3	10	74
11. Diseases of the Skin, Cellular Tissue, etc.	...	...	...	...	12
12. Malformations	2	...	...	2	30
13. Premature Birth and Debility ...	30	2	...	32	225
14. Atrophy	34	...	9	43	160
15. Age	...	...	37	37	478
16. Sudden	...	...	...	...	101
17. Violence, Privation, Cold, and Intemperance	9	10	3	23	317
Causes not Specified	3	1	...	4	56

BOOKS RECEIVED.

The Harmonies of Physical Science in Relation to the Higher Sentiments: with Observations on the Study of Medical Science, and the Moral and Scientific Relations of Medical Life. By William Hinds, M.D., etc. London: Churchill. 1853.

Change of Climate considered as a Remedy in Dyspeptic, Pulmonary, and other Chronic Affections. With an Account of the Most Eligible Places of Residence for Invalids in Spain, Portugal, Algeria, etc. etc. By D. J. T. Francis, M.D., etc. London: Churchill. 1853.

Observations on the Nature and the Treatment of the Asiatic Cholera. By William Stevens, M.D., D.C.L. Oxon. London: Baillière. 1853.

A Pathological and Practical Treatise on Epidemic Cholera; its History Causes, Various Forms, and Treatment. By O. B. Mahony, L.F.P., etc. London: Churchill. 1853.

TO CORRESPONDENTS.

Case of Spurious Hermaphroditism.

[To the Editor of the Medical Times and Gazette.]

Sir,—The following case came under my observation a few days ago: and if you consider it worthy being put on record, perhaps you will allow me a space in your Journal for this letter:—

Mary ——, æt. 15, is a patient at a medical institution of this City, and was admitted for some suspected venereal affection; has led an irregular, dissolute life; is of fair complexion; in stature, about 5 feet; has never menstruated. The countenance is of a feminine character, but the shape of the head is more masculine; there is a slight development of hair on the sides of the face and on the upper lip; there is no development of the mammæ; there are a few hairs about the nipples; the limbs do not present the rotundity commonly found in the female; there is nothing remarkable in the voice. The external organs of generation present the following appearance:—There is scarcely any development of the mons veneris; the perinæum is divided into what has the appearance of the two labia majora, and, on separating these, a structure is seen resembling the labia minora. At the situation of the clitoris is a body which projects between the labia, and has the following characters:—It is about 2 to 2½ inches in length, and is covered at its extremity by a distinct prepuce, on retracting which a small "glans" is found; this glans is imperforate, and has a groove on its under surface. The orifice of the meatus urinarius is not seen in its usual place. In the ordinary position of the external opening of the vagina is an aperture into which a finger can be passed, leading upwards and backwards for about 1½ to 2 inches, and then terminating in a cul-de-sac. Into the lower and anterior part of this is the opening of the urethra. Situated on either side of the divided perinæum (in either labium) is a body (firm, oblong, and moveable), having a structure at its upper part with all the characters of an epididymis, and leading from it is a cord which gives to the fingers the sensation of a spermatic cord. No pain is felt when these bodies are pressed; they can be passed upwards as far as the external abdominal ring, but not into the abdomen.

This patient, I think, presents us with a case of what is called "spurious hermaphroditism." That the bodies situated in the labia are true testicles I have no doubt. An arrest of development has taken place in fœtal life; the two sides of the perinæum have not been united; and the penis has been checked in its growth. From the fact that the urethra opens into the "vaginal pouch," and does not run to the extremity of the penis, it seems scarcely possible that the individual, who has always been considered a female, and is now in the female ward of the institution in which she is placed, will ever be able to perform the ordinary functions of the male.

I am, &c.

Manchester. A. T. Houghton Waters, M.R.C.S.

Erratum.—In the Report from the Royal Berkshire Hospital, in our last, at page 499, col. I, line 34 from bottom, *for* "the reason of their cartilaginous degeneration," *read* "by reason," etc.

H. B. Harvey, Esq.—The Margate Sea-Bathing Infirmary was re-opened for the season on the 18th instant.

Our correspondent *J. S. S., Derby*, may be reminded, that in cases where Cod-liver oil is digested with difficulty, M. Trousseau substitutes for it, with advantage, a compound made of the following materials:—Four ounces of fresh butter; half a drachm of common salt; a grain of iodide of potassium; and three grains of bromide of potassium. This butter is to be eaten during the day, on very thin slices of bread. We ought to say that we mention this on the authority of M. Trousseau, not having tried it ourselves.

Mr. Robert Ellis's kind offer is declined. We do not consider it necessary to give a drawing of the cautery.

A Subscriber.—No such work as that asked for is published.

We do not think that *M.R.C.S.E.* and *L.A.C.*, can seriously mean what he says. As a rule we are convinced, that men who can only obtain a degree by purchase without an examination, are not at all worthy of being dubbed Doctors. The examinations for the degree of M.D. can hardly be too severe.

We have received a pamphlet from *Mr. Robert Wood*, showing the treatment he received, in common with some other practitioners, at a mesmeric *séance*. The whole proceeding was so contemptible, that we almost regret Mr. Wood condescended to notice it.

M. B. Londinensis, will find the answer to his question in our "Medical News" column.

A. Thom Thomson, Esq., Cheadle, Cheshire.—The error in the *Critic* as to the tendency of Dr. Simpson's work on Homœopathy is said to have occurred by the printer mistaking the word *opponent* in the manuscript, for convert, and then, to make the sentence intelligible, altering the last word.

A Young Surgeon wishes to know how he is to procure a commission in the Prussian army, and inquires, what sort of a medical service it is? We regret, that we could as easily inform "A Young Surgeon" as to the openings for practice at Timbuctoo, as answer his present questions.

Student.—The only method of ascertaining the specific heat of ice, is by adding equal quantities of heat to ice and other solid bodies, and noting the different results obtained. The specific heat of ice is ·7200, that of water being 1·0000.

Alpha has not put his case as clearly as we could wish, and we therefore are unwilling to give him a positive answer; but as far as we can understand his case, we believe he must attend hospital practice for another year, before presenting himself for examination at the College of Surgeons.

Dr. Beamish's "private" communication is so exceedingly ridiculous and offensive, that unless it is withdrawn and some excuse offered for it, we must decline any further correspondence with him.

Mr. Henry Sibbins.—The pupil in question may pass the old examination in Celsus and Gregory.

Misericordia acted quite correctly in not giving up his patient—the burglar—to the police.

A Poor Student.—The College of Surgeons and the Society of Apothecaries will allow certificates of attendance on Parisian hospitals and lectures.

COMMUNICATIONS have been received from—

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ORIGINAL LECTURES.

CLINICAL LECTURE
ON
CASES IN WHICH PUS IS FOUND IN THE URINE,
AND
GOUT AS IT AFFECTS THE BLADDER.(a)

DELIVERED AT

King's College Hospital.

(July 15, 1851.)

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Physician to the Hospital.

Gentlemen,—In my last lecture, I began to call your attention to some of those cases in which pus makes its appearance in the urine. I then pointed out to you, that there are many sources from whence the pus may be derived. The case of Charles Rickman, in the Sutherland ward, afforded us an instance of an affection of the bladder, giving rise to the formation of a large quantity of pus; and I then told you, that I considered this secretion of pus was due to inflammation of the bladder of a gouty character.

From this man's history, we find that he has suffered from several attacks of gout, which alone might lead us to suspect, that the bladder affection was of this particular origin; but he also exhibits other marks of the gouty diathesis. The mode of accession of the acute symptoms, as well of the bladder as of the joints, was peculiarly characteristic of gouty affections; inasmuch as the bladder attack was sudden, and also without warning, and the articular affection exhibited an erratic character. You have had an opportunity of watching this case for some time, and you are, no doubt, most of you aware, that the patient was suffering from a stricture at the anterior orifice of the urethra. This stricture prevented the free exit of the urine, and so kept up the irritation of the bladder. On this account, the disease remains still uncured; but, in the main, our treatment has been eminently successful. The stricture, in consequence of preventing the free passage of the urine, keeps up an irritable state of the bladder, so that this viscus refuses to retain even a small quantity of urine, and the necessity for very frequent micturition results. The urine is, however, now acid, having been, as you know, for a considerable time, highly alkaline,—so alkaline indeed, as to produce that characteristic reaction on the pus-globules, which I before explained to you as the result of the action of all alkalies on this substance, consisting in the transformation of the purulent deposit into a thick and glairy jelly-like mass, the so-called glairy mucus. Under the long-continued use of the dilute nitric acid brought up to large doses,—sometimes given with decoction of pareira, sometimes with infusion of buchu, and the exhibition of opium by enema, and otherwise,—the irritability of the bladder has greatly diminished, and the gouty symptoms have been subdued; and I doubt not, that the patient will, ere long, leave the hospital quite well.

This case leads me to make some remarks on the occurrence of gout in the bladder, and to describe to you some of the various forms in which it affects this organ. These remarks apply especially to what I have myself observed in cases which from time to time have been brought under my notice. Gout appears to me to manifest itself in the bladder in four different ways.

1st. It manifests itself as a distinct and very obvious inflammatory affection; so that I imagine, in these cases, the mucous membrane of the bladder would be found red and inflamed, presenting, indeed, the ordinary appearance of a mucous membrane in a state of inflammation. This condition must, however, be distinguished from inflammation of the bladder, occurring from other causes, and unconnected with any specific inflammation. Gouty inflammation of the bladder is an analogous affection to gouty inflammation of the lungs, gouty bronchitis, or gouty pneumonia and gouty inflammation of the stomach. In cases of this kind there is a great tendency to the secretion of pus by the mucous membrane of the bladder. If there be any difficulty in the free evacuation of the pus, the urine becomes alkaline, from the retention of a small quantity of the secretion, and the subsequent decomposition of the urea; the highly alkaline urine, in its turn, keeps up the irritability of the bladder, and promotes the secretion of more pus. In this way, either a weak or paralytic state of bladder, or an enlarged prostate, or a stricture in the urethra may stand in the way of the complete restoration of this organ to its healthy functions.

2ndly. Gouty inflammation attacks the bladder in a different manner to that last described, so as to produce incontinence of urine. A gouty man becomes troubled with incontinence of urine, and we find that this incontinence depends upon a highly irritable state of the mucous membrane of the bladder, and a consequent inability of that organ to retain the urine, and not upon a paralytic state of the sphincter vesicæ muscle. In this form, the sensibility of the mucous membrane is very much exalted, and the bladder becomes intolerant of the presence of the smallest quantity of urine, so that the evacuation of its contents is constantly taking place at short intervals. The prominent symptom, then, in such cases, is frequent micturition of small quantities of urine, the urine being pale, acid, devoid of mucus or pus; sometimes, it may be, albuminous, owing to the existence of gouty disease of the kidneys.

It is difficult to define the exact pathological condition of the mucous membrane of the bladder in this affection. It is an irritable rather than an inflammatory state,—a condition in which the sensibility of the mucous membrane of the bladder is greatly exalted, owing to the influence of the gouty poison, which seems capable of irritating the bladder as cantharidine does. The cases in which it is apt to occur are generally in elderly persons, whose systems seem thoroughly imbued with gout, and in whom deposits exist in the joints, or the tendinous sheaths, or in the arteries. It occurs in old persons, and often accompanies enlargement of the prostate gland. Sir Benjamin Brodie describes cases which, I suspect, are of this nature, the primary cause of the symptoms being gout. He says, "An elderly man complains of frequent attacks of giddiness. Sometimes, in walking, his head turns round, so that he is in danger of falling; and this symptom, probably, arises from an altered structure of the arteries of the brain, causing an imperfect state of the cerebral circulation. This state of things is sometimes attended with an irritable condition of the bladder, and, although the urine is of a healthy quality, and the bladder itself is free from disease, the patient is tormented with a constant micturition, voiding his urine without pain, but at short intervals, and in small quantity."(a)

3rdly. A third class of cases exhibits a condition opposite to that which I have just described, in which, instead of the patient being unable to retain even a small quantity of urine in his bladder, he is suddenly or rapidly affected with an inability to pass water, and the bladder becomes distended in consequence, causing great pain and suffering. The essential difference between these two conditions, consists in this, that in the former case the mucous membrane is rendered highly irritable by the gouty poison, and kept so by some irritating quality of the urine; but in the latter case the muscular coat is the seat of the affection. There is ample evidence to show, that muscles may be attacked by the rheumatic or by the gouty poison. Thus, in subjects of gouty diathesis, it is not uncommon to meet with sudden and severe affections of external muscles, accompanied with con-

(a) Lecture XXXVII. Reported by Dr. BEALE.

(a) Lectures on the Diseases of the Urinary Organs, p. 94.

stitutional disturbance similar to that of acute gout. I am just now attending a nobleman in whom very decided constitutional disturbance, accompanied by distressing intermission of the heart's action, preceded for some time the sudden appearance of a very painful inflammatory affection of the same portion of the gastrocnemius muscle on each side, which came on in the sudden way in which gout is apt to do. Lumbago is an instance of gouty affection of muscles. The intercostal muscles are often similarly attacked, giving rise to a most painful affection, which occasionally ends in pleurisy, or even pleuro-pneumony. Just in the same way gout may attack the muscular fibres of the bladder, stomach, or colon; and in the cases of retention of urine such as I am describing, it affects the muscular coat of the bladder so as to paralyse it, in a manner analogous to that in which the active principle of belladonna may affect the muscular fibres of the iris, and cause a dilated, immovable pupil.

I will relate to you a case in illustration of this form of gout in the bladder. A barrister of great eminence in his profession, was obliged to return to town from his circuit, where he was largely employed, and, indeed, overworked. He had been seized with severe muscular pains in the thighs and loins, which I regarded as gouty. The patient was of a gouty family, generated lithic acid freely, and had passed a considerable quantity of lithic acid gravel. On a former occasion, I had attended him for one of those attacks of sudden affection of the intercostal muscles, (gouty pleurodyne, as I would call it,) passing on to dry pleurisy. For these reasons, I was justified, I think, in regarding and treating these pains as gouty in their character. After he had been three or four days under treatment for this affection, he found, one morning, on attempting to empty his bladder, that it refused to discharge its contents. A complete paralysis of the bladder had taken place, and evidently not from too great distension, as the patient did not suffer much inconvenience, and the quantity of water which had accumulated was not considerable. Under a soothing treatment, with slight counter-irritation over the region of the bladder, this paralytic state gave way within four-and-twenty hours, but it was several days before the full power and tone of the bladder were restored.

4thly. Gout attacks the bladder, in some cases, as follows, (and I take my remarks on this head from a case which actually came under my notice:)—A gouty man indulges more freely in the delicacies of the table than he is usually wont to do; perhaps he is guilty of some indiscretion in what he partakes, eating cheese or some other indigestible matter which disagrees with him, and, before he goes to bed, he is suddenly seized with violent pain in the region of the bladder, which in some cases lasts an hour, but in others continues to torment the patient for two or three hours, preventing him from sleeping, and often producing great distress. This condition is usually relieved by free counter-irritation and the administration of alkalies.

If, then, you find a man labouring under any of the four conditions that I have described, and at the same time you are enabled to discover from his history symptoms characteristic of a gouty diathesis, and you are convinced of the absence of calculus, you may feel satisfied that the symptoms are dependent upon a gouty inflammation of the bladder, and your treatment will be influenced accordingly. It must, however, be borne in mind, that a stone will cause the development of very similar symptoms, and it will, therefore, sometimes be necessary to sound the patient carefully, in order to determine the presence or absence of stone. The sudden invasion, the existence of the gouty diathesis, and the absence of other causes to account for the symptoms present, mark the peculiar nature of the affection, and concur in making us suppose the disease to be of gouty nature. Being decided as to the diagnosis, what means are we to adopt to relieve the symptoms? The treatment in these cases is obvious and simple. First and most important, then, is free counter-irritation; but you must apply your counter-irritation carefully, and consider what form of counter-irritant will be best suited to the case. Blisters would be improper, because cantharidine, which is the active principle of the blister, is a direct irritant to the mucous membrane of the bladder, and would tend, therefore, rather to increase the distress. Turpentine must not be employed either, because it irritates the kidneys, and the irritation is liable to be propagated to the bladder. Mustard is the most effectual counter-irritant which we can use in these cases, and has not the disadvantages of the former remedies. Strong ammonia may likewise be used as a counter-irritant. Our next consideration must be to relieve pain, which in many cases is a most urgent symptom, and we should endeavour to effect this in the speediest and safest manner possible. If the affection be of the first form, where pus is generated, the best course to pursue is to give opium in some way or other. This may be done by the endermic method, by rubbing in a strong opiate liniment over the region of the bladder. Or, what is much better and more certain in its action, the opium may be given in the form of an enema injected into the rectum. About half a drachm of laudanum, mixed with a small quantity of decoction of starch, of which not more than an ounce and a-half, or two ounces, should be employed, may be gently injected into the rectum, and you will find that it acts as a sort of warm poultice, containing opium, to the bladder; and in this way all kinds of irritability of this organ may be relieved. The irritable state of the bladder caused by cantharidine (strangury) is effectually relieved in the same way, and gouty inflammation is benefited in like manner. The action of cantharidine, indeed, forms a pretty illustration of the manner in which we may suppose the gouty poison to cause the vesical irritability, and they may both be relieved in a similar manner. If the patient is not quite relieved after the administration of the first enema, you need not be afraid to give a second, provided that you are sure he exhibits no peculiar idiosyncracy with respect to opium. In many cases of this kind you may give opium also with advantage by the mouth, and especially in combination with sudorifics.

With reference to the treatment of all cases of gout, where the disease is apt to attack internal organs, I may give you this practical hint, and I strongly advise you to bear it in mind whenever you may be called upon to treat gout of this nature. It is this, that these cases are of an asthenic character, and do not bear depletory measures; so that if you find a patient labouring under gout of the stomach, or gout affecting the bladder, you must not think of applying leeches, and employing the treatment which would be applicable to other forms of inflammation of these organs; for the abstraction even of so small a quantity of blood as would be taken by the application of a few leeches might do the patient serious mischief, and cause prostration from which he might never rally. On this point Sir Benjamin Brodie has expressed a similar opinion; for he lays it down, that antiphlogistic treatment is inapplicable to that particular form of inflammation of the bladder which is of a gouty origin. With regard to the exhibition of colchicum, I am of opinion, that, in many cases, it is inadmissible, and, in all, it should be given with great caution and circumspection; for this so-called specific is certainly very depressing in its influence, and therefore unsuitable to cases which partake of the asthenic character.

The treatment which, in my experience, has been most beneficial for gout, when it attacks any of the hollow viscera, consists in employing free counter-irritation,—keeping up a moderate action of the bowels,—paying attention to the functions of the skin, and promoting the action of this great secreting surface by the exhibition of sudorifics. Provided the urine be not alkaline, the administration of alkalies will be found of service, and opium is employed with great advantage for allaying the irritability of the affected organ, which is often productive of great distress to the patient.

As I have before hinted, there is much resemblance between the gouty affections of the bladder and those of the stomach. In the latter organ, gout shows itself by the sudden development of violent pain referred to the stomach. This is often attended with the generation of gas in immense quantities, which distends the organ. Another form is, when the stomach is impatient of the smallest quantity of food, as the bladder is of urine. Incessant vomiting is the characteristic symptom of this form of the complaint. Sometimes these symptoms exist together, as you have lately witnessed in the case of Pyne, in the Sutherland Ward. In other cases, the muscular coat becomes greatly weakened, and the food is pushed on only very slowly into the bowel. It accumulates in and distends the stomach, which becomes dilated and large, and by reason of the atonic state of the organ remains so. In all the forms of the complaint, but in none more than in this last form, the tendency to the generation of gas is a very prominent feature.

And, now, to return from this long digression, into which I have been tempted by the interest of the subject, to the cases in which pus appears in the urine.

Our second case is particularly interesting, by reason of the large quantity of pus in the urine. The patient is in Lonsdale Ward; her name is Mary Anne Jenkins; she is unmarried, and only twenty-five years of age. We have good notes of the case made by my clinical clerk, Mr. J. H. Sylvester.

This patient has been for a very long time passing large quantities of pus in her urine. She was herself able to detect the pus in the urine so long ago as twelve months before her admission into the hospital; but it is probable it may have existed long before she detected it; and she informs us, that, ever since, she has passed a considerable quantity each day without intermission.

All the history that can be obtained is this:—For the last five years she has suffered constant pain in the loins, referred especially to the region of the left kidney. This pain varied in intensity; it was generally slight and dull, but now and then severe. It does not appear, however, that at any time she suffered so much as to oblige her to desist from her usual daily occupation as a household servant. She never had any symptoms of an acute attack, no rigors, no vomiting. She never passed blood in her urine to her knowledge, nor did she ever pass gravel or a calculus. She never suffered from severe pain in the direction of the ureter. We could not trace any evidence of local injury. She does not remember ever to have had any severe blow in the loins.

Rather more than twelve months before her admission she was attacked suddenly with retention of urine, which lasted twenty-four hours; and immediately after its cessation she first began to notice in the urine a sediment, which presented the same characters, as that which is now constantly deposited. The attack of retention of urine was preceded by slight rigors, but the constitutional disturbance was altogether of so slight a character, as not at all to lay her up. There is no evidence that she ever passed blood or gravel, nor can we distinctly trace the history of any inflammatory attack affecting the kidneys itself, nor is there any sign denoting the existence of any peculiar diathesis.

On her admission we found that the urine deposited a large quantity of pus, which was measured daily by pouring a certain quantity of the urine into a graduated measure, and allowing the pus to subside. In this way we found as much as two, three, and even four ounces of pus deposited from the urine of twenty-four hours. It is very remarkable that all this secretion of pus produced so little constitutional disturbance, that she was, from its first appearance, never even once prevented from continuing her duties as a domestic servant. So trifling were the constitutional symptoms, that she did not seek for medical assistance until she observed a large quantity of pus in the urine, when she consulted her master, a medical man, who soon afterwards sent her to see me.

Upon carefully examining her, I found a very large tumour situated in the region of the left kidney, and forming a considerable projection beneath the abdominal wall. This tumour, which was three times the ordinary bulk of the kidney, was elastic and yielding to the touch, and communicated the feel of a soft elastic swelling filled with fluid, rather than that of a solid mass. There was dulness on percussion all over the surface of the tumour; the dulness, however, did not extend over the left hypochondriac region, neither in front nor behind in the vicinity of the spleen. The surface of the tumour was smooth and round, and free from any knots or projections.

The diagnosis of a tumour, such as I have described, is, perhaps, less complicated when it is found on the right, than if it occur, as in this case, on the left side. In this latter situation it is liable to be confounded with an enlarged spleen, which is by far the most common tumour found here. How, then, are we to distinguish the one tumour from the other? A splenic tumour enlarges first upwards, so as to occupy the whole of the left hypochondrium, the posterior and lateral portions of which would yield a dull sound on percussion, the stomach being pushed by it to the right side. It then pushes downwards and somewhat forwards, presenting its anterior border forwards and towards the right side, which, in thin persons and children, may be readily felt and even grasped, and in which frequently may be felt one or more notches, which are very characteristic of splenic tumour. A kidney will not enlarge in the upward direction so as to possess itself of the left hypochondrium; it extends chiefly downwards and outwards, and presents to the hand behind the abdominal wall, a broad convex surface, and it causes more or less bulging of the loin behind. When the subject is thin, you may seize the tumour by placing your hand on the loin, and your thumb on the anterior wall of the belly, and you may thus lift it, and form some idea of its weight.

The splenic tumour is firm and solid, smooth and convex on its outer and anterior surface, with its anterior border thick, prominent, and notched, as I have already said. No such edge can be felt in the renal tumour; and in character it may be solid or elastic, or even fluctuating, according to the nature and cause of the enlargement.

Then it is hardly necessary to point out to you that you must call to your aid in the diagnosis certain concomitant symptoms, such as the peculiar sallow complexion—it may be some history of ague—in splenic cases, and the presence of renal symptoms when the kidney is the affected organ.

The tumour, in the present case, was not painful; the patient could bear it to be handled without pain, unless when very hard pressure was used, when she complained of a dull pain. Her most urgent symptom was an occasional cutting pain referred to the neck of the bladder, sometimes accompanied by slight difficulty of micturition. She says that she sometimes has a sensation of fulness in the left side, which afterwards goes off rapidly, as if something had burst, and then there very soon follows an increased flow of pus in the urine. There is good reason to believe that pus itself may irritate the mucous membrane of the bladder when it passes over it, and it was probably on this account that our patient always complained of a cutting pain in the region of the bladder whenever she passed an increased quantity of pus.

The pulse, in this case, never rose above 96. Now and then our patient perspired slightly, but never profusely; and, as I said before, there has been much less constitutional disturbance than we might fairly expect to be present, when we consider the amount of lesion that must exist to account for the enormous quantity of pus that this patient passes.

The largest quantity of pus that we have found in a pint of urine is four ounces and a-half, and in no instance have we obtained less than an ounce and three-quarters from the same quantity; so that if the patient passed two pints of urine, the enormous quantity of eight ounces of pus would have been often excreted in the twenty-four hours. Generally, however, the quantity of urine passed fell below the normal amount, and often did not exceed twelve ounces. Such, then, is the history of this very remarkable case, which is especially interesting clinically from the co-existence of the tumour with the daily passing of so much pus in the urine.

Assuming, for the reasons which I have already specified, that the tumour is due to an enlargement of the kidney, we must next determine the source of this large quantity of pus. Did it come from the bladder, or did it result from irritation of the mucous membrane of the pelvis of the kidney or ureter, by the presence of a calculus, or from any other cause? It evidently did not come from the bladder, for so large a quantity of pus could scarcely be secreted from the mucous membrane of this viscus, without extensive disease of the bladder itself; in which case, we should have expected to find a greater disturbance of the general health, and more decided symptoms referable to the bladder. Another circumstance which, to a certain extent, may be considered to negative this presumption, is the absence of triple phosphate. I told you in my last lecture, that in those cases in which we met with pus in the urine, resulting from inflammation of the mucous membrane of the bladder, we usually found a great quantity of the crystals of the triple phosphate present. In the present case, the urine has been frequently carefully examined at short intervals, but we have never been able to detect any crystals of the triple phosphate.

Did it come from the ureter? I think not, because symptoms are wanting to denote irritation of that duct, and chiefly because the ureter does not afford a sufficient extent of surface to secrete so large a quantity of pus. The diagnosis, then, becomes limited either to abscess of the kidney, or to that condition of the mucous membrane of the pelvis of the kidney, to which the term "pyelitis" has been applied by Rayer. *Primâ facie*, it seems difficult to conceive how the latter affection could create a large tumour in the region of the kidney; but I think this admits of explanation.

I shall now proceed, by simply stating my view of the case, to account for the presence of the pus in the urine, and to explain the nature of the tumour in the side. From some cause or other—probably from inflammation of the ureter—a certain amount of contraction of that duct occurred some time ago, the seat of the constriction being, probably, very near the bladder. Let us suppose a stricture formed in this situation, and consider what phenomena this would give rise to. Fluid would, of course, accumulate above the point of stricture; and as the quantity of urine increased, it would exert a backward pressure up the ureter towards the kidney, the effect of which would be, first, to dilate the ureter; next, the pelvis of the kidney would suffer; and, lastly, the kidney itself would gradually become expanded into a large cyst, with a thick wall, in which all the elements of the secreting structure would be retained. Of such a change we had a good instance, in its early stage, in the case of Steventon, in Sutherland Ward, (Vol. XXXIV., p. 13,) in whom we diagnosed, during life, the existence of a calculus in the ureter; and you will remember, that at the examination of the body a calculus of the size of a good large nut was found impacted in the lower part of the left ureter. In that case, you saw a marked dilatation of the ureter above the impacted calculus. The pelvis was much dilated, and the calices or infundibula which embrace the papillæ were also much enlarged. These papillæ themselves were flattened and compressed, and the substance of the kidney spread out so as to give an apparent enlargement of the gland, to the extent of nearly a fourth of its normal size.

Now, although, in Jenkins' case, we have no evidence of the impaction of a calculus in the ureter, there may be some obstruction in the ureter; and the same series of changes which I have described in Steventon's case, have been taking place probably over a much longer space of time, and to a much greater extent. The kidney has become expanded into an immense thick-walled sac, became much dilated, and ultimately attained the size which it now possesses, occupying the space between the last ribs and the crest of the ileum. In this way we get an immense surface, capable of generating a vast quantity of pus; it becomes, in fact, a pus-secreting surface. This is the way in which I think the presence of the pus in the urine, and the existence of the large tumour in the side, may be accounted for. The stricture causes a backward pressure on the kidney, which becomes sacculated in consequence, and the healthy function of the mucous membrane becomes impaired, and at length changed into a pus-forming surface.

Many years ago I had an opportunity of examining the body of a patient who died from the long continuance of disease of the kidney of this kind. There was an enormous tumour of the right kidney which resulted from the expansion of the organ in the manner I have described, into a large sac filled chiefly with pus. Imperfect septa projected into the sac, corresponding to the dilated infundibula. The ureter was nearly as large as a portion of the small intestine, and there was a stricture of it about a couple of inches above its entrance into the bladder, caused by a thickening of the walls of the duct.

Some eight or nine years ago, I had an opportunity of seeing another case which I have no doubt was of a similar nature to this. I was requested to see a gentleman, a young man, who was suffering from a large and painful tumour in the left side. He had seen several physicians, and there was some difference of opinion as to the nature of the tumour. Upon a careful examination, I came to the conclusion, that the tumour was due to a sacculated condition of the kidney. I was very much aided in this conclusion, from having examined *post mortem* the last case I mentioned. With this view of the case, and believing that the pain arose from the pus being pent up in the huge sac of the kidney, I recommended that the patient should get up, and be kept moving about as much as his strength would permit, assuming that gravitation would favour the descent of the contents of the sac; and this plan was apparently successful, for, very soon after he commenced walking about, much glairy matter appeared in the urine, and, in a few hours more, he passed a large quantity of pus. This gentleman ultimately got quite well, and the tumour in the side gradually subsided. In this particular case, the cause of the tumour appeared to be this:—The patient had formed a great notion of the powers of nitre in the treatment of colds, and he was in the habit of taking it in very large quantities. These large doses of nitre at last irritated the kidneys very much; and, inasmuch as there had been probably a stricture of the left ureter, the increased secretion of urine was prevented from flowing freely into the badder; hence a backward pressure was exerted; distention of the ureter, and ultimately of the pelvis of the kidney occurred, leading to the formation of pus, as I just now described.

In support of this view of the case, I may state, that although this patient got quite well from the present attack, I was informed, that he was imprudent enough to have recourse to nitre again some time afterwards, and that his doing so was followed by the same train of symptoms as before, by the formation of a tumour, which disappeared in the same manner as on the first occasion.

Would not abscess of the kidney explain the phenomena occurring in our patient Jenkins? The existence of abscess implies the occurrence of suppurative inflammation of the kidney, followed by the process of sloughing, and the formation of more or less of pus in the cavity left by the evacuation of the slough. Such changes as these could hardly take place to such an extent as to give rise to the secretion of so large a quantity of pus, without causing considerable constitutional disturbance, much more than has existed in the case of Jenkins.

It is true, that the amount of constitutional disturbance in cases of this nature varies with the extent to which the gland is affected. A very small abscess may exist without much fever; but this cannot be the case where the abscess is large, or, as frequently happens, where there are several abscesses.

Not long ago, we had in the hospital a patient who exhibited the symptoms of renal abscess in their most aggravated form. Many of you may remember the case of Walter Denny, aged 34, (Vol. XXXI., p. 25,) in Sutherland. The notes were kept by Dr. Edward Simpson. This patient had been suffering for seven years before his admission, with frequent attacks of severe pain, accompanied by vomiting, and hiccough, and irritability of the bladder. The first attack was ushered in by sudden and severe pain in the right lumbar region, attended by severe and intractable vomiting. This was followed by several attacks of the same kind, for which he was treated in one of the London hospitals. In the last of these illnesses, the urine, as far as one may judge from his description, became purulent. The attacks, which he was told, and not unreasonably, were due to the irritation of a calculus, subsided on his going into the country, and he remained well for four years.

At the end of this time, the attacks came on again with great severity; he had frequent rigors, and the pain was so severe, that chloroform was administered to him on more than one occasion. Under this illness he was for eighteen weeks in a hospital in London. On leaving the hospital, he had a remission of his sufferings for some months, from May, 1849, to July, 1850; the right loin, however, remaining tender. He came into this hospital on the 9th of August, with a fresh attack. He was suffering from severe pain, referred to the right loin; constant vomiting and hiccough. The urine at times contained pus in considerable quantity; but at other times was free. Under the microscope, in addition to pus globules, numerous crystals of oxalate of lime were seen. No calculi were passed now, or at any other time. During his stay in the hospital, he would suffer from paroxysms of pain, vomiting, hiccough, which were always accompanied by a free discharge of pus. Then the purulent discharge would cease; and then would come a remission of the symptoms, to be followed by a fresh discharge, and renewed pain, vomiting, and hiccough.

This alternate discharge and cessation of pus in the urine, coinciding with the development and disappearance of the symptoms, led me to think that there was an abscess of the kidney, which, on becoming full, excited great pain and constitutional disturbance, until it had freely discharged itself, or that a new process of sloughing was taking place, and a new abscess being formed. Whether at the root of all this mischief there was a calculus, one could not positively say. It was somewhat against this view that no blood had been passed, and that no small calculi had ever been discovered in his urine; but, on the other hand, it was greatly favoured by the excessive pain, the sickness, vomiting, and hiccough.

This patient died exhausted by his sufferings, and we found in the right kidney several small abscesses, with an inflammatory state of the ureter, the mucous membrane of

which was covered by thick lymph in its whole tract. The bladder was healthy.

Take another case, that of Sarah Furnace, aged 29, (Vol. XXXI. B), a married woman, who was some weeks in the hospital, which will exemplify the milder form of abscess in the kidney,—that is, when the constitutional symptoms are less severe.

The symptoms, in this case, began two years before her admission, with pain in the left side of a sharp kind, loss of appetite, and fever. Soon after this, she states, that she felt a tumour in that side, and then she observed blood and matter in it. From this time she has found the tumour enlarge from time to time, and become painful; she has then had the sensation as if it burst, and the discharge passed off in the urine.

And during her stay in the hospital, this was what seemed to take place. On her admission, we could detect a decided enlargement of the left kidney; then she had the sensation of bursting, and with it relief to the pain and a free discharge of pus. Then the pus would disappear from the urine, until a fresh accumulation took place; the kidney would enlarge and become painful, and empty itself as before. While the kidney was thus full and painful, the febrile symptoms would be at their height, and they would subside as the pus flowed away.

This patient did not remain more than a fortnight in the hospital; but, even in that short time, under rest, good diet, and a little quinine, her general health improved very much.

To return to the case of Jenkins; we tried various plans of treatment, chiefly with a view to improve her general health. She took, for some time, bark and mineral acids. We tried, likewise, gallic acid, hoping it might affect the quantity of pus; but, although her general health improved, no material diminution of the pus took place, nor did any change occur in her symptoms.

The prognosis in the case of Jenkins need not be unfavourable; the disposition to form pus may cease, and the sacculated kidney shrivel up; the long-continued pressure on the vessels and tubes of the kidney enclosed in the wall of the sac may destroy the secreting power of the organ; the other kidney taking on itself the work of both. The pus being evacuated, and no fresh pus secreted, both the sac and the ureter shrink up. This, as Sir B. Brodie has suggested, is the probable explanation of the shrivelled kidney and ureter, which is sometimes met with; the other one being large and plump. This young woman's constitution being good, and there being a free exit for the pus, we may hope that she will yet do well, as in the case I have already related.(a)

But were this a case of abscess in the substance of the kidney, our prognosis would be very different. These cases are in general fatal after a longer or shorter time, according to the severity of the symptoms and the natural power of the patient. In dealing with such cases, you must be above all things careful to uphold the patient's strength, and to caution him against everything that can weaken or exhaust it. There is quite sufficient reason to suppose that a small abscess may get well, or remain quiescent for many years. I am sure I know persons now living and enjoying good health who have, or have had a cyst in the kidney, from which pus has been secreted.

I have now directed your attention to the cases most likely to come before you, in which a large quantity of pus appears in the urine. They may be classified thus:—

1. Cases of affection of the bladder in which the pus is secreted from the mucous membrane of the organ.

2. Cases in which the pus is secreted from the mucous membrane of the pelvis of the kidney,—cases of pyelitis.

3. Cases in which the pus comes from the substance of the kidney itself, in consequence of the existence of abscess. To these may be added, cases in which pus comes from the ureter; but this is an affection seldom isolated from pyelitis, or from inflammation of the mucous membrane of the bladder.

(a) While this lecture was passing through the press, this patient presented herself at the hospital, more than eighteen months since she had left it. On quitting the hospital, she had gone to Brighton, and there had improved in health very much, and the purulent discharge gradually diminished. On a careful examination of the side, there was no trace of the tumour. A few pus-globules were seen in the only specimen of the urine which was examined; but whether these came from the kidney, or merely from the vagina, could not be decided.

A COURSE OF LECTURES ON ORGANIC CHEMISTRY,

DELIVERED IN THE

Laboratory of the Royal Institution of Great Britain.

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Lecture VIII.

In the last lecture, you became acquainted with the chemical character, and with some of the applications of ferrocyanide of potassium. The relation of this substance to cyanide of potassium, and the manner in which it may be derived from the latter compound were likewise mentioned. It remains now to describe to you the process by means of which this important salt, which is the starting-point for the preparation of all cyanogen-compounds, is manufactured upon a large scale, and to add a few remarks upon the formation of cyanogen generally.

The ordinary method of manufacturing yellow prussiate of potassa consists in fusing animal charcoal with carbonate of potassa. Not every kind of animal charcoal is equally applicable. Generally, dried flesh, horns, hoofs, and hides are carbonised for this purpose; while the animal charcoal obtained by the carbonisation of bones,—the bone black of commerce,—is reserved for the operations of the sugar-refiner. A considerable quantity of the animal charcoal for making prussiate of potassa, is produced by carbonising old shoes and boots. And so it is that substances, discarded every year in such enormous quantity, that every one must wonder what becomes of the accumulation, are made to re-appear on the dresses of our ladies, after having passed through a series of chemical changes.

Animal charcoal, which is very rich in nitrogen, is fused in large iron vessels with its own weight of carbonate of potassa, until effervescence has entirely ceased, the fused mass being continually stirred during the whole operation. Two stages may be distinguished in this process. In the first place the carbon reduces the potassium of the carbonate of potassa exactly as it does in the preparation of potassium, which, as you know, is obtained by fusing carbonate of potassa with wood charcoal. The free potassium, however, instead of being disengaged, as in the latter operation, meets with carbon and nitrogen, with which it combines in the proportion in which these substances form cyanogen. The result is cyanide of potassium, which is, however, still contaminated with a great variety of impurities. The mass, when treated with water, acts upon the iron of the vessels, or upon the iron originally contained in the nitrogenous substances employed: these it dissolves. The iron in this reaction replaces the potassium of one equivalent of the cyanide; the cyanide of iron, formed in this manner, combines with two additional equivalents of cyanide of potassium to form ferrocyanide. The potassium, of course, becomes oxidised, either by the oxygen of the atmosphere or by that of the water whose hydrogen is evolved.

The solution of the ferrocyanide is now evaporated when the salt crystallises. One or two crystallisations render it perfectly pure. It is remarkable, that the ordinary mode of manufacturing ferrocyanide of potassium is entirely dependent upon the co-operation of processes of vitality, inasmuch, as animal substances are involved in the reaction. It is, however, possible also to obtain cyanides by uniting carbon directly with the nitrogen of the atmosphere. The experiments of Bunsen and Fownes have proved, that if charcoal, perfectly free from nitrogen—sugar charcoal was employed for this purpose—be thoroughly mixed with carbonate of potassa, and exposed at a very high temperature to a current of nitrogen, a certain quantity of cyanide of potassium is produced. This process has been actually adopted for the production of ferrocyanide of potassium upon a large scale, and considerable quantities of the salt are said to be produced in this manner. The mixture is heated, for this purpose, in vertical flues of brickwork, through which a current of atmospheric air is forced by mechanical means, the air having been previously deprived of its oxygen by passing through a column of ignited coke. After ten or twelve hours, the mass is raked out of the flue, exhausted with water, and the solution of cyanide converted into ferrocyanide by digestion with finely divided spathic iron.

The direct formation of cyanogen presents considerable interest, inasmuch as this body belongs to those substances in the generation of which, but a few years ago, the action of forces was assumed differing from those concerned in the production of ordinary chemical compounds. For this reason I should have desired to have demonstrated this formation of cyanogen before you. Unfortunately, however, I am precluded from the actual experiment, in consequence of the high temperature, as well as the length of time which it would require. But I have arranged an apparatus which will allow us to construct cyanogen, if not from its elements, at all events from some of their simplest compounds, the direct formation of which is beyond all doubt. This gas-holder contains carbonic oxide; it is in connexion with a flask containing a strong solution of ammonia, from which, especially if the flask be gently heated while the gas is passing, a considerable quantity is carried over with the carbonic oxide. The mixed gases are deprived of part of their water by passing through a system of tubes containing lime; and they ultimately arrive in a tube containing spongy platinum, which is heated in a gas furnace. On the other side of the furnace, a delivery tube dips into water. At this high temperature, and in contact with the spongy platinum, which is a remarkable promoter of chemical combination, the oxygen of the carbonic oxide and the hydrogen of the ammonia combine to form water, while carbon and nitrogen unite to form cyanogen, which is disengaged from the delivery tube in the form of cyanide of ammonium. Two equivalents of carbonic oxide and two equivalents of ammonia contain the elements of two equivalents of water and one equivalent of cyanide of ammonium.

$$2\ CO + 2\ NH_3 = 2\ HO + NH_4\ C_2\ N$$

To prove the presence of this compound, we avail ourselves of the process with which we became acquainted in the last lecture. By the addition of a solution of protoxide of iron, we convert the cyanide into a ferrocyanide. This, when mixed with sesquichloride of iron, and a small quantity of hydrochloric acid, to dissolve the precipitated oxide, will readily cause the fine colour of Prussian blue to appear.

There is another formation of cyanogen, which may be more easily exhibited experimentally, and which, from reasons which you will appreciate by-and-by, presents even more interest. In common oxalate of ammonia, carbon and nitrogen are present in the proportions in which they form cyanogen, while hydrogen and oxygen exist in the same proportions as in water. In fact, when merely looking at the formula, you may view oxalate of ammonia as a combination of cyanogen with water.

$$C_2\ O_3,\ NH_4\ O = C_2\ N + 4\ HO$$

Now, experiment shows that cyanogen is produced from oxalate of ammonia, under the influence of substances which have a powerful attraction for water. When dry oxalate of ammonia is heated with anhydrous phosphoric acid; there is a considerable quantity of cyanogen evolved, which, although it is not perfectly pure, nevertheless burns with the characteristic violet flame exhibited by this gas when obtained from cyanide of mercury.

The experiments which I showed to you in the last lecture sufficiently prove the tendency of cyanogen to assimilate other elements or compounds. When associated with these, it constitutes new molecular groups, endowed with different properties. Thus we saw, that when iron is absorbed into its constituents, the mono-basic radical cyanogen became converted successively into the bibasic ferrocyanogen, and, lastly, into ferricyanogen, which is capable of uniting with three equivalents of metals. It is true, that none of these secondary radicals have hitherto been isolated; but, in most cases, the compounds were long known before the radicals themselves were obtained in the separate state.

A similar set of secondary radicals, which have not yet been isolated, are assumed by chemists to exist in a series of compounds which I have now to bring under your notice.

A solution of cyanide of potassium, when digested for some time with finely divided sulphur, dissolves a considerable quantity, and the filtered liquid now contains a new substance. It is sufficient for this purpose to pour a boiling solution of cyanide of potassium through a filter, upon which flowers of sulphur are spread. This new substance is formed in larger quantity when cyanide of potassium is fused with sulphur; and, likewise, when ferryocyanide of potassium, or, better still, when a mixture of this salt and carbonate of potassa is treated in the same manner. The new salt thus produced, which has received the name of sulpho-cyanide of potassium, differs entirely from the original compound. Cyanide of potassium, when perfectly pure, has scarcely any action upon a solution of sesquichloride of iron. Sulpho-cyanide of potassium strikes a beautiful deep blood-red colour with the salts of sesquioxide of iron. While cyanide of potassium crystallises in cubes or octahedrons, the sulpho-cyanide shoots into magnificent slender white needles, frequently traversing the liquid from one side of the vessel to the other. It crystallises particularly well from alcohol, in which it is less soluble than in water. If the composition of this salt be compared with that of cyanide of potassium, it is found that it contains the elements of the latter + 2 equivalents of sulphur. Its formula is

$$K\ Cy\ S_2 = K\ Csy.$$

It may be considered as a combination of potassium with a compound radical, to which the name of sulphocyanogen has been given, and which contains the elements of cyanogen and 2 equivalents of sulphur. Many efforts have been made to separate this radical, and chemists, at one period, believed that they had succeeded. If a concentrated solution of the potassium-salt be submitted to the action of chlorine, a beautiful sulphur-yellow powder is separated. This was long considered as the radical, and described under the name of sulphocyanogen. Later researches, however, proved that the two substances in question differed in their composition, the latter containing a certain amount of hydrogen.

Sulphocyanide of potassium produces insoluble precipitates in solutions of most metals. The salts thus formed correspond in their composition with the potassium-salt. The lead- and silver-salts are white precipitates, yielding, on being treated with sulphuretted hydrogen, free hydrosulphocyanic acid.

K Csy	sulphocyanide of potassium	
Pb Csy	,,	of lead
Ag Csy	,,	of silver
H Csy	,,	of hydrogen (free acid.)

Hydrosulphocyanic acid is an acid, colourless liquid, which is readily decomposed, forming hydrocyanic acid, and several other products. It cannot be obtained by the action of stronger acids, such as hydrochloric or sulphuric acid, upon sulphocyanides. On adding concentrated hydrochloric acid to a saturated solution of sulphocyanide of potassium, a yellow crystalline precipitate takes place. This substance, however, is a product of the decomposition of hydrosulphocyanic acid. It contains a large quantity of sulphur, and is called persulphocyanic acid.

Sulphocyanide of potassium is an exceedingly valuable re-agent for salts of sesquioxide of iron, affording a ready means of distinguishing them from the salts of the protoxide which are not affected by it. On account of the great facility with which cyanides pass into sulphocyanides, the characteristic re-action of the latter with sesquichloride of iron may also be used to trace the presence of cyanides in minute quantities. This test is particularly useful, if the cyanide exist under circumstances under which the application of the ordinary tests becomes inconvenient, as in cases where it is mixed with organic substances and other salts. The experiment may be made conveniently in the following manner:—Two watch-glasses are selected which exactly fit each other. The salt to be tested is placed in the lower one, with a small quantity of sulphuric acid, and then covered with the other watch-glass, the inner surface of which is moistened with a few drops of yellow sulphide of ammonium, which, combining with the liberated hydrocyanic acid, is partly converted into sulphocyanide of ammonium. On gently heating the upper watch-glass, the sulphide of ammonium is volatilised, while the sulphocyanide remains, which may now be tested in the usual manner.

Cyanide of potassium, when submitted to the action of oxygen, exhibits a perfectly analogous deportment. When heated in contact with the air, this salt absorbs 2 equivalents of oxygen, and is converted into a new salt, corresponding to sulphocyanide of potassium.

$$K\ Cy\ S_2$$
$$K\ Cy\ O_2$$

According to this formula, it might be called, "oxycyanide of potassium," but it is better known by the laboratory term, "cyanate of potassa." For the preparation of this

compound on a larger scale, the oxygen is more frequently employed in a state of combination than in its free condition. Protoxide of lead or minium is often used for the purpose. The minium is gradually introduced into cyanide of potassium fused in a Hessian crucible, where it is instantaneously deprived of its oxygen. On account of the facility with which cyanide of potassium is oxidised under these circumstances, this salt constitutes one of the most valuable reducing agents of the laboratory. Nor is it absolutely necessary to use cyanide of potassium; ferrocyanide of potassium may be likewise employed. An interesting mode of forming this compound consists in heating a mixture of two parts of dry ferrocyanide of potassium with one part of finely-divided binoxide of manganese in contact with the atmosphere. A tinder-like combustion ensues, as is evident from the change of colour and the continuation of the evolution of heat, even after the gas has been turned off. The crude mass resulting from either of these processes is extracted by hot dilute spirit, which, on cooling, deposits the potassium-salt: water cannot be used for this purpose. The new salt dissolves with the greatest facility in this liquid; but, on attempting to obtain crystals by evaporation, we soon find that a perfect decomposition has taken place,—torrents of ammonia are evolved, and the salt which is ultimately left consists entirely of carbonate of potassa. This change is brought about by the action of the water, the elements of which are appropriated by the constituents of the salt. One equivalent of cyanate of potassa contains 2 equivalents of carbon, 1 equivalent of nitrogen, 1 equivalent of potassium, and 2 equivalents of oxygen; add to these the oxygen of 3 equivalents of water, and you have enough oxygen to convert the whole of the carbon into carbonic acid, and the potassium into potassa, while the nitrogen combines with the liberated hydrogen to form ammonia.

K	C_2	N	O_2			
			O_3	H_3	=	3 water.
K	C_2	N	O_5	H_3		
	C_2		O_4		=	2 carbonic acid.
K		N	O	H_3		
K			O		=	1 potassa.
		N		H_3	=	1 ammonia.

From the potassium compound a series of metallic salts may be prepared by double decomposition; thus, on adding solutions of silver or lead, white precipitates are produced, in which the potassium is replaced by the two metals mentioned.

K Cy O_2
Ag Cy O_2
Pb Cy O_2

But all attempts to replace these metals by hydrogen, *i. e.*, to produce the acid of the series by the methods generally adopted for that purpose, have hitherto failed. I have alluded to the facility with which the hydrosulpho-cyanic acid is decomposed,—the corresponding oxygen acid is even far more readily altered. On adding hydrochloric or dilute sulphuric acid to the potassium compound, a penetrating odour is perceived, reminding you of sulphurous or acetic acid, which evidently belongs to the cyanic acid liberated; but, after a few seconds, a powerful effervescence of carbonic acid ensues, and the liquid, which was previously free from ammonia, now contains the ammonia salt of the acid, which was employed, and which may be readily shown by the addition of caustic lime when the ammonia will be liberated. It is evident that the acid, when set free, undergoes the same decomposition which was observed on evaporating the potassium-compound.

Cyanic acid has nevertheless been obtained, and, indeed, under circumstances so interesting and so instructive, that I cannot refrain from entering into some details respecting its formation. In order that you may understand the train of experiments which has led to this result, I must remind you of the deportment exhibited by many mineral chlorides; when coming into contact with water, a decomposition of the latter ensues, we obtain hydrochloric acid, and an oxide of the element with which the chlorine was combined. I perform the experiment with terchloride of antimony; the action of water produces instantaneously a precipitate of white teroxide of antimony. If a compound of chlorine with cyanogen could be obtained, it would not be impossible that the action of water upon this substance would produce the acid in question.

$$S_6\ Cl_2 + 3\ HO = S_6\ O_3 + 3\ H\ Cl$$
$$Cy\ Cl + HO = Cy\ O + H\ Cl$$

Now, chlorine combines very readily with cyanogen. It is only necessary to bring together in a suitable vessel cyanide of mercury and chlorine, when on the one hand chloride of mercury, and on the other chloride of cyanogen is produced. This body is a gas at the common temperature, but may be liquefied by exposure to a frigorific mixture. In this state it may be preserved when sealed in strong glass tubes. The deportment of this substance, however, greatly differed from what chemists had anticipated. It was found that water had no effect whatever upon this chloride. Indeed its formation is greatly facilitated by the presence of water; and I hold in my hand a solution of this gas in water, which was prepared some weeks ago. The penetrating odour, and the expulsion of an inflammable body upon application of heat, at once betray the presence of this compound. If the chloride of cyanogen gas be passed into a solution of potassa, decomposition ensues, chloride of potassium and cyanate of potassa are formed, but the latter undergoes almost instantaneously the decomposition which has been repeatedly mentioned; it is converted into carbonate, with evolution of ammonia. The liquid chloride of cyanogen which is preserved in sealed tubes, passes, however, rapidly into a new modification, which exhibits a perfectly different deportment with potassa. After a few days, long, slender crystals begin to appear in the liquid; these gradually augment, and, after the lapse of a week or two, the whole liquid has solidified into a crystalline mass. On opening the tube, we find there is no longer the slightest odour perceptible. The compound which previously boiled below the freezing point of water is now converted into a substance difficultly fusing and boiling at a temperature not much lower than the fusing point of tin. The analysis of this substance has led to the remarkable result, that it has exactly the same composition as the gaseous chloride of cyanogen. Now, what explanation can be given of this difference of properties exhibited by two substances of exactly the same composition? This explanation has been furnished by the examination of the density of the two substances when in the state of vapour. And here you have an example of the valuable aid which the chemist derives from the important process which I had an opportunity of describing to you in one of the former lectures. This examination shows that the vapour-density of the solid chloride of cyanogen is three times that of the chloride of cyanogen gas; in other words, that in the passage of the gas into the solid, the molecules have been approximated in such a manner that the same volume of gas, after the change has taken place, contains three times the weight of matter which was originally present in it. We accordingly represent the composition of the gaseous chloride by the formula

Cy Cl

and that of the solid compound by the expression,

$Cy_3\ Cl_3$

Substances related to each other, like the gaseous and solid chlorides of cyanogen are called isomeric or polymeric substances. The cyanogen-series is particularly rich in examples of this description.

Solid chloride of cyanogen is not affected by water, but is readily attacked by a boiling solution of potassa. The products are perfectly different from those which are observed in the decomposition of the gaseous chloride. No carbonic acid, no ammonia is produced. We obtain the potassa-salt of an extremely stable acid, which may be boiled with potassa without undergoing decomposition. Neither have acids any action upon it. On adding concentrated hydrochloric acid to the solution of the potassa-salt, a white crystalline precipitate takes place, which, when re-dissolved in boiling water, furnishes long slender prisms of the acid. This substance, remarkably enough, has exactly the composition of the acid which formed the starting point of this discussion, namely of cyanic acid, its formula being in fact

H Cy O_2

The deportment of this acid, however, shows at once that it is not really cyanic acid. Both the acid and its salts belong to the stablest compounds of organic chemistry; while, as I showed you, the cyanates are very ephemeral. This different

deportment, together with the origin of the acid from the solid chloride of cyanogen, rendered it very probable that the crystalline acid might bear to the acid in the cyanates exactly the same relation which the solid and gaseous chloride of cyanogen have to each other; and that the new acid was formed by the coalescence, as it were, of three atoms of cyanic acid into one atom of a more complex acid, having the same composition, which in this case would be expressed by the formula,

$$H_3\ Cy_3\ O_6$$

This view has been borne out most beautifully by a close examination of the salts of this acid. It has been established, that the new acid, which is called cyanuric acid, is unquestionably a tri-basic acid, *i. e.*, that it contains, like phosphoric acid, three atoms of hydrogen, which are replaceable by metals. Consequently, it produces three series of salts, which are represented by the formulæ, M expressing one equivalent of a metal,

$$M_3\ Cy_3\ O_6 : \left.\begin{matrix} M_2 \\ H \end{matrix}\right\} Cy_3\ O_6 : \left.\begin{matrix} M \\ H_2 \end{matrix}\right\} Cy_3\ O_6$$

The white precipitate produced by the addition of nitrate of silver to a solution of the potassium-salt belongs to the first series; it contains

$$Ag_3\ Cy_3\ O_6$$

and has, consequently, the same percentage-composition as the cyanate, which, as you saw, contains

$$Ag\ Cy\ O_2,$$

from which it differs, however, in its deportment. With potassium, two salts

$$\left.\begin{matrix} K_2 \\ H \end{matrix}\right\} Cy_3\ O_6 \text{ and}$$

$$\left.\begin{matrix} K \\ H_2 \end{matrix}\right\} Cy_3\ O_6$$

may be prepared, which sufficiently distinguish cyanuric from cyanic acid, salts of this composition being impossible with a monobasic acid.

The most beautiful result, however, obtained in these researches was the decomposition observed by Professor Wöhler, in submitting cyanuric acid to the action of heat. When distilled in a small retort, cyanuric acid is entirely volatilised, and there is collected in the receiver, which, for this purpose, has to be cooled with ice, a clear, colourless, transparent liquid, having a powerful pungent odour, similar to that of acetic or sulphurous acid. This substance has exactly the same percentage-composition as cyanuric acid, with which, however, it has scarcely any other property in common. The character of this compound proves that the substance obtained by this peculiar roundabout method is indeed the very cyanic acid which we vainly endeavoured to produce by the ordinary processes employed for the separation of acids from their saline compounds. When coming in contact with water, this pungent liquid yields at once carbonic acid and ammonia, a decomposition to which I have frequently adverted, and which alone would be sufficient to characterise it as cyanic acid. It is evident, then, that by the action of heat, one equivalent of cyanuric acid splits into three equivalents of cyanic acid.

$$H_3\ Cy_3\ O_6 = 3\ H\ Cy\ O_2,$$

and that in this process exactly the reverse occurs of what happens in the formation of the solid chloride of cyanogen. Cyanic acid, as obtained by this method, has a very transient existence. A few minutes after its preparation it enters into a sort of ebullition, and then suddenly solidifies into a white porcelain-like solid, perfectly insoluble in water, and which has again the same percentage-composition as cyanic and cyanuric acid, from both of which it differs. It is another polymeric modification of the same molecular group, and is called *cyamelide*, or insoluble cyanuric acid. In what manner, however, the molecules are arranged in this compound, it would be difficult to say, inasmuch as cyamelide is a most indifferent substance, producing no kind of combination, and yielding, as the sole products of decomposition, cyanic or cyanuric acid.

But the list of polymeric compounds is not completed by cyamelide. There is still another, perhaps the most interesting of all, to which I have to call your attention for a few moments, and which, as you will see directly, is produced by a perfectly different process. Under the name of Howard's and Brugnatelli's fulminating compounds, two salts have long been known, which are produced by the action of nitrous acid upon alcohol in the presence of mercury or of silver. These substances, as indicated by their name, are explosive in the extreme. Their composition was utterly unknown when, now about five-and-twenty years ago, Liebig, at that time still under the guidance of Gay Lussac, embarked in their investigation. The result of the celebrated inquiry of these two philosophers, in which Liebig's name appeared for the first time before the scientific world, was, that these substances are closely related to the cyanates and cyanurates, that, in fact, the fulminating silver has exactly the same percentage-composition as cyanate and cyanurate of silver. But let us first see how this substance is produced. This beaker contains a saturated solution of nitrate of silver in alcohol, into this solution I pass the vapour of nitrous acid as it is disengaged by the action of nitric acid upon arsenious acid. You observe, that it becomes turbid almost instantaneously. The white crystalline powder which separates is fulminate of silver. The re-action is easily intelligible. Let us add together the elements of one equivalent of alcohol, two of nitrous acid, and two of protoxide of silver; then, by subtracting six equivalents of water, we arrive at a formula which, when divided by two, coincides with that of cyanate of silver.

1 eq. of alcohol	C_4	H_6		O_2	
2 ,, of nitrous acid			N_2	O_6	
2 ,, of oxide of silver				O_2	Ag_2
	C_4	H_6	N_2	O_{10}	Ag_2
6 ,, of water		H_6		O_6	
	C_4		N_2	O_4	Ag_2 =
	$= 2\ C_2$		N	O_2	Ag $= 2\ Ag\ Cy\ O_2$

The experiment which I have shown you well illustrates the formation of this compound. In practice, however, both the silver- and mercury-salts are obtained in a somewhat different manner. In this case the nitrous acid is furnished by the action of the nitric acid upon a portion of the alcohol itself. Fulminate of mercury, for instance, is made by dissolving one part of mercury in twelve parts of nitric acid, (of spec. gr. 1·36,) and adding this solution in a retort to eleven parts of spirits of wine, (of 80 per cent.) The heat of a water-bath is sufficient to cause a most violent re-action, the details of which you will better understand after I have treated of alcohol. Suffice it to say, that a portion of the alcohol is more or less oxidised, a variety of volatile products being formed, which are collected in the receiver. The nitric acid, reduced to the state of nitrous, acts upon the remainder of the alcohol, and thus produces the salt.

Both fulminate of silver, and of mercury, but especially the latter, are used in the manufacture of percussion-caps. The preparation of these salts has to be performed with the greatest precautions. The fearful catastrophe at Apothecaries Hall, which caused the untimely end of Mr. Hennell, is still fresh in the memory of many.

On account of the rapidity with which the explosion of the fulminates takes place, they are not employed for charging fire-arms. A remarkable composition, containing fulminate of mercury, and collodion, (gun cotton dissolved in ether,) together with several other explosive compounds, has, however, been of late prepared for this purpose by Messrs. Gersheim and Winiwarter, of Vienna, which deserves the attention of those who take an interest in matters of this kind. This mixture does not explode unless submitted to powerful percussion; it may be handled with perfect safety. The explosion, although extremely powerful, is sufficiently slow for the propulsion of the bullet. Lastly, the presence of collodion protects the other constituents from the action of moisture.

The identity of composition of the fulminates with the cyanates and cyanurates, substances from which their properties so essentially differ, has naturally attracted the attention of chemical inquirers. They have endeavoured to account for this remarkable difference in a manner similar to the mode of explanation suggested for the different deportment of cyanic and cyanuric acids. A closer examination of the several fulminic salts has also, in this case, elucidated the question.

On adding potassa to a solution of fulminate of silver, a brown precipitate of protoxide of silver is produced. It is found, however, that by no means the whole amount of silver is thus precipitated; half of it remains in solution,

which, on evaporation, furnishes a crystalline salt, containing both silver and potassium. The simplest expression into which the analysis of this compound can be translated is the formula—

$$Ag\ K\ C_4\ N_2\ O_4 = Ag\ K\ Cy_2\ O_4$$

Analogous compounds are formed by treating fulminate of silver by soda or baryta, the existence of which naturally leads to the assumption, that fulminic acid is a bibasic acid, and that the composition of fulminate of silver itself must be represented by the formula—

$$Ag_2\ Cy_2\ O_4$$

Chemists have not yet succeeded in preparing the hydrogen compound corresponding to the silver salt,—that is, free fulminic acid. If the fulminate of potassium and silver, which I have just now mentioned, be treated with nitric acid, the potassium is eliminated in the form of nitrate, and replaced by hydrogen, an acid silver salt of the formula—

$$Ag\ H\ Cy_2\ O_4$$

being produced. The last equivalent of silver, however, cannot be removed without entirely destroying the compound, which splits into hydrocyanic acid, and a variety of products not yet sufficiently examined. If fulminic acid could be separated—and its isolation, after what has been experienced in the case of cyanic acid, appears by no means improbable—it would have the composition $H_2\ Cy_2\ O_4$. This formula places fulminic acid between cyanic and cyanuric acids, as shown in the following table, and satisfactorily accounts for the dissimilarity of properties exhibited by the salts of the three isomeric acids:—

Cyanic acid	$H\ Cy\ O_2$	(monabasic).
Fulminic acid	$N_2\ Cy_2\ O_4$	(bibasic).
Cyanuric acid	$N_3\ Cy_3\ O_6$	(tribasic).

The fact that the fulminates are produced by processes so essentially different from those used in preparing the cyanates and cyanurates has induced some chemists to doubt the actual existence of so close a relation between these several acids. It is true, neither cyanates nor cyanurates have hitherto been converted into fulminates; but experiments performed not long ago by Dr. Gladstone have proved that the decomposition of fulminates invariably gives rise to the formation of members of the cyanic series, among which sulpho-cyanide of ammonium and urea may be specially mentioned. The latter, one of the most interesting compounds of cyanic acid, will claim our particular attention in the next lecture.

HISTOLOGICAL ANATOMY
AND
MICROSCOPICAL MANIPULATION.

By Dr. BOON HAYES,

Physician to the Northern Dispensary; Lecturer upon Pathology and Morbid Anatomy at the Hunterian School; formerly Lecturer on Anatomy, Physiology, and Pathology, at the Sydenham College, Birmingham.

Lecture VIII.

Summary: Bone.—70. Mode of making Sections—71. General Appearance of a Transverse Section—72. Lacunæ—73. Laminæ and Canaliculi—74. Oblique and Longitudinal Sections—75 The Haversian Canal—76. The Concentric Laminæ—77. The Canaliculi—78. The Lacunæ—79. The Circulation in Bone—80. Imitation of it—81. The Inter-Haversian Stroma—82. The Essential Parts of Bony Tissue.

BONE.

70. Take any one of the long bones—say the humerus—fix it in a vice firmly; saw it in two, as in performing an ordinary amputation, and then from the end of the portion still held in the vice, saw off a segment about as thick as a shilling, or thinner if possible. Fix this in a port wine or similar cork, and hold it against the smooth surface of a common grindstone. Grind it down until it is tolerably thin, then upon a common slate, using a bit of linen rag as a rubber, and clean water to prevent too great friction. Rub it until it is as fine as a piece of tissue paper. If you have cut it thin enough in the first instance, the whole of this rubbing operation will take you about an hour. Next wash the specimen in water. Afterwards steep it in ether, to dissolve any fatty matter. Then upon placing it on a stage glass, and examining it with a power of about 200 diameters, you will observe a collection of Haversian systems, like the accompanying diagram:—

Minute structure of bone, magnified 300 diameters. 1. One of the Haversian canals, surrounded by its concentric lamellæ. The corpuscles are seen between the lamellæ; but the calcigerous tubuli (canaliculi) are omitted. 2. An Haversian canal with its concentric lamellæ; Purkinjean's corpuscles and tubuli. 3. The area of one of the canals. 4. 4. Inter-Haversian stroma.

71. The Haversian system consists of a central canal running parallel with the medullary cavity of the bone. This is surrounded by a series of nearly concentric laminæ or plates of bony tissue, each *system* containing from about eight to twelve of such laminæ. Between one lamina and another, there appears a dark irregularly oblong spot, which is a cavity filled up with the debris of bone produced in the sawing, grinding, and rubbing processes. This was formerly thought to be a solid body; and as it, with the canaliculi, are the only constant and essential elements in bony tissue, as to microscopic appearance, it was called the Purkinjean corpuscle, after Purkinje, the Dutch philosopher, who first observed it, and imagined that it constituted the element of bone matter.

72. This, however, was a mistake. This so-called corpuscle is *no* corpuscle, but a hollow space, now called a *lacuna*. This can be demonstrated thus,—first, by thoroughly washing the specimen under investigation, so as to take away the debris; secondly, by dropping some coloured fluid upon the specimen, which immediately colours similarly the lacuna or its contents, if any remain.

73. Between the lacunæ of one set of laminæ and those of the other, small branching canals perforate the bony structure; they are very minute, and are hence called "canaliculi." These radiate more or less from the concentric axis, or the Haversian canal, like the medullary rays in an exogenous plant.

74. An oblique or longitudinal section of one of the long bones will give all these parts, and, of course, different views of them. These sections may be made in a similar manner to that adopted in preparing transverse sections, but *they require more care in the rubbing down*, being more friable. Let us now examine the individual parts mentioned more minutely; viz., the Haversian canal, the concentric laminæ, the lacunæ, and the canaliculi.

75. The Haversian canal runs parallel with the long axis of the bone. It is always large enough to admit a blood-vessel; and the largest of them—for they differ in size—may contain marrow. Its office is doubtless to form a secure casement for the delicate blood-vessels which, through these passages, permeate the whole bony mass. Now, these canals, while they resemble the medullary cavity of the bone in direction and function,—being, in short, the medullary cavity of a single Haversian system,—differ from it in not running from one end of the bone to the other; they turn off, so to speak, from above downwards, and open more or less obliquely into the sides of other Haversian canals, the blood-vessels contained in them also opening into one another by capillary anastomosis.

76. The CONCENTRIC LAMINÆ, eight, ten, twelve, or fifteen, in number, in each system, are the true bone; they surround the Haversian canals like so many rings; in all probability they are complete rings, though they seldom appear so; but most likely they have become broken or distorted in the grinding process; and when we speak of them being concentric, we do not mean literally so, for, while this is probably their normal condition, they are turned out of the centric axis of the system by rubbing, &c., or, it may be, by forces in the growing process, that is, during their development, just as the cellular structure of plants may be altered in form from pressure, and various other causes, while growing. Now, these laminæ are as distinctly *extra-vascular* as the epidermis; no blood-vessels permeate them, and their nearest proximity to blood-vessels is in the capillary system of the Haversian canals; their nourishment is from a circulation of the liquor sanguinis through the canaliculi.

77. The CANALICULI run at right angles to the Haversian canal, through the lamellæ of bony matter, passing from, or into, the lacunæ; they are not permeated by blood-vessels, being, in fact, smaller than the capillaries. They are destined to be media for nourishing the bone, as capillaries are of other structures.

78. The LACUNÆ are lakes, or interspaces between one lamina of bone and another, where they form small reservoirs for retaining the *liquor sanguinis*. They are of various sizes, and their long diameter corresponds with the long axis of the bone, or the axis of the Haversian system. Their short diameter is that which you observe in the transverse section. Their average long diameter is about the $\frac{1}{1000}$ of an inch.

Lacunæ and canaliculi magnified 500 diameters, viewed with transmitted light. The three dark bodies are the cavities; *b b* are the canaliculi.

79. The CIRCULATION IN BONE, then, is thus managed. The liquor sanguinis or plasma, after transuding through the coats of the capillaries contained in an Haversian canal, passes through the open mouths of the canaliculi, which make their exit upon its walls,—namely, those contained in the first concentric ring of bone; it thus finds its way into the first set of lacunæ, which, becoming full, immediately begin to empty their contents into the canaliculi, which open upon their opposite wall, and communicate through the next lamina of bone, with the second set of lacunæ, and so forth through the whole rings in the Haversian system.

80. Now all this may be demonstrated by dropping upon either the centre or circumference of the specimen some coloured fluid (as red ink), and watching its progress through these various passages. It will not take long to permeate the whole bony channels of the specimen, demonstrating, at the same time, that the lacunæ are not "corpuscles," but cavities.

81. Now examine the specimen with a single achromatic lens, magnifying about eighty diameters: you will observe many of these Haversian systems rolled up, or bound together by what might be called an "inter-Haversian stroma." This is, in short, a lamina of bony matter, in which the various Haversian systems are wrapped up into a complex resisting mass. This has in it simply lacunæ and canaliculi, no Haversian canals. It is seen well near (1) in section 70.

82. It may be remarked, in passing, that the arrangement into Haversian systems is not *essential* to the structure of bony tissue, and is connected principally with its appearance in the form of long bones. In the laminæ of the cancelli, as also in the sphenoidal spongy bones, and laminæ of the ethmoid, etc., lacunæ and canaliculi only are found, and these seem to be the only essential channels of the simplest form of bony tissue.

We will not take up the processes of "ossification" until we have examined cartilage. I have given you the simplest view of bony tissue, as you may demonstrate it for yourselves. The conversion of cartilage into bone will be better understood when we have examined cartilage itself; and the minute structure of the lamellæ will also then be better appreciated.

ORIGINAL COMMUNICATIONS.

CASE OF SEVERE CHOREA.

By Dr. BARCLAY,
Medical Registrar to St. George's Hospital.

A very severe case of this disease has just been brought to a successful termination, some few particulars of which may be found worthy a place in the *Medical Times and Gazette*. For some days the issue in life or in death was exceedingly doubtful; and the means employed, with beneficial results, being somewhat unusual in the treatment of this disease, available suggestions may be derived from their detail to guide others in the management of similar instances.

The two principal remedies used at the time when the disease took a favourable turn, and to which we are, therefore, disposed to look as those by which its progress was checked, were the inhalation of chloroform and the employment of large suppositories of quinine. The former agent now holds the first place in temporarily allaying nervous irritability and suspending muscular action; but its effects are also not merely temporary; sleep commonly follows on recovery from the immediate stupefaction; and in how many instances may not the physician say, "if he sleep he shall do well!" But it is not the troubled dream of narcotism or *quasi*-intoxication that fulfils the function of "Nature's soft nurse." If natural sleep does not follow on the cessation of the artificial dose,—if the drug, whatever it may be, does not serve merely as the first provocative of a "balmy sleep," which is prolonged without artificial aid, the object of the physician will be frustrated, and the patient will awake unrefreshed by his slumbers, and, perhaps, not uninjured by the congestion of the brain which always attends in greater or less degree the action of narcotics. On this circumstance depends the very varying success which has attended the use of chloroform in states of extreme nervous irritability—mania, delirium tremens, and chorea; in each of which it has been employed at times with apparent advantage, while at others its effect has been null, or even, perhaps, pernicious. It is true, that, as its effects are more transient, at the same time that they are more decided than those of any other narcotic, it may be ventured on in those doubtful cases bordering on inflammation, where, in all probability, a certain degree of congestion already exists, and where we should not feel justified in giving opium or even morphia experimentally, and, therefore, there is less limit to the cases in which its effects may be tried; yet while we know that we can for the time allay pain, annul consciousness, and calm irritability, we cannot be certain that we shall succeed in obtaining a natural sleep, and, therefore, can be by no means certain, even when no congestion exists, that its action will be curative.

Along with the calm of the narcotic, and, in fact, to give full force to its action, it was necessary to support the system, and restore its exhausted energies, by the administration of a tonic. Large doses of quinine have of late been so frequently given, with alleged benefit in some instances, and apparently without prejudice in all, that nothing need be said except with reference to the mode of administration, which was here in the form of suppository: tonics and sedatives, taken into the stomach, had failed of quieting, and restoring disordered function; and, in such cases, it always demands consideration, whether perverted assimilation may not prevent their entering the circulation in such a manner as to produce their normal effects on the system. Dr. Wilson is constantly in the habit of noticing this circumstance in the depraved states of stomach of habitual drunkards, and attempting to reach the nervous system by another channel, which may not offer the same obstruction to its absorption. With this view, opium, in the form of suppository, is frequently ordered in delirium tremens with the best effects.

The consideration, too, of the absence of the menstrual flux, the evidence of periodical congestion of the generative organs, was not without its importance in determining this application of the remedy. The catamenia had been regular up to that time, and the decided exacerbation of the symptoms occurred just when their return was expected. Two or three days had passed without any appearance of the sort,

and the symptoms were gradually increasing in severity when this remedy was employed. It may be remarked, however, that, up to the period of her convalescence, the function was not restored.

Susan H—, aged 16, was admitted into St. George's Hospital, under the care of Dr. Wilson, on February 23, 1853. She had been in service, and had been much worried by illness in the house, and over-work. No other cause was known for the occurrence of the symptoms of chorea, which had been gradually supervening during a fortnight or three weeks before her admission. She had had no rheumatism, and the heart was healthy. When received into the hospital, the spasmodic movements were not by any means violent, nor very constant; but there was great distortion of feature, especially when she attempted to speak. She was ordered a strong purgative, and then directed to have six minims of Fowler's solution in pimento water, three times a day. The bowels were rather loaded, and much inclined to be costive, and the purgative was repeated on two or three occasions. She continued taking the arsenical solution until the 11th of March, and seemed, under its influence, to be gradually becoming quieter and steadier. She was rather out of sorts that day, and the arsenic was left off for a day or two.

The spasmodic movements now began to be more frequent and severe, and she was obliged to lie in bed. The sesquioxide of iron was given in doses of two scruples three times a day without benefit. Her nights became disturbed, and she used to scream out a good deal during the day. Seclusion had rather a calming effect upon her; and the bed was screened off from the rest of the ward, during which she used to have occasional short slumbers; but, for the most part, she was very restless; the expression of her face was rather wild, and the spasmodic movements constant and severe.

On the 17th, the bowels having been well purged, she was ordered to have a third of a grain of tartar emetic every three hours, and half a grain of acetate of morphia at night. This produced no sickness, and seemed partially to calm her; it was continued a second day, at intervals of four hours. She had had no sleep that night, and was evidently no better; without being very violently tossed about, there was excessive restlessness and desire of movement; her face was much distorted, and the expression wild, and almost maniacal; and, as she sat upon her bed, with her legs drawn up under her, and her hair in wild confusion about her face, she looked much more like a proper inmate for Bedlam, than a person suffering simply from chorea, and the more so, because of her constant cries; but the nurse satisfied herself that she was free from delirium, and perfectly conscious on all occasions.

She had now passed the catamenial period, with no return of the menstrual flux. Her nights were sleepless, and a quarter of a grain of morphia was given every three hours to six times, but without benefit. She seemed to be gradually becoming exhausted by the constant jactitation and want of sleep. Wine had been given; yet the tongue was becoming dry and brown, the lips covered with sordes, and the pulse quick and feeble. Her aspect was distressed, and she was tossed about very violently by the spasmodic movements of the disorder.

On the 21st she was directed to inhale chloroform, and to have a suppository, with two grains of opium at once, and a draught with four grains of camphor, and some chloric ether every two hours. The first inhalation quieted her, but she awoke almost immediately after the first effects had passed off; it was not repeated till night, and, in the mean time, eight grains of quinine in suppository were ordered every hour for six times. She had some sleep after the second inhalation, and it was repeated the following forenoon. She was decidedly quieter, and the draughts and the suppositories, which had not been all given with perfect exactness, although very frequently during the night, were continued at intervals of four hours. The chloroform inhalation was again repeated on the evening of the 22nd. She slept pretty well after it through the night, and fell asleep naturally next morning, waking up to have her dinner, and almost immediately going to sleep again, and continuing to dose all day. From this time she continued to improve rapidly. She was still a little odd-looking in face, and restless jactitations lasted for some time; but she gradually became steadier. On the 4th April she was ordered Griffith's mixture, and on the 15th was discharged recovered.

OUGHT THE *ENLARGED* TONSILS OR THE *ELONGATED* UVULA TO BE EXCISED IN THE TREATMENT OF DEAFNESS?

By JAMES YEARSLEY, Esq.,

Member of the Royal College of Surgeons; Surgeon to the Metropolitan Ear Infirmary, Sackville-street, and to the Royal Society of Musicians, etc., etc.

Such a multiplicity of facts crowd upon my mind in refutation of statements adverse to the first of the above questions advanced by Mr. Toynbee, in the *Medical Times and Gazette* of May 14, that I am at a loss to know how and where to begin; and, indeed, I enter upon the discussion with reluctance, foreseeing the difficulty of proving the affirmative to the satisfaction of that gentleman; remembering, too, the Hudibrastic couplet,—

> "A man convinced against his will,
> Is of the same opinion still."

I had scarcely concluded the perusal of the article in question, when my services were required in two cases closely bearing upon the subject. The first, a public singer of great eminence, who, for years past, has suffered frequent deterioration of his health and voice from the condition of the mucous membrane of the throat; and, as this unhealthy condition is complicated with enlargement of the tonsil-glands, the question naturally arises, how far the malady is dependent on this enlargement. So sure am I of the fact, that I have not hesitated to advise the removal of all the diseased growth which projects beyond the margin of the arches of the palate; for, although I have patched up my patient's strength temporarily by tonics, and fitted him for the resumption of his avocations, I can safely predict the return of his throat affection within a very brief period. Ultimately, my patient will submit to the operation, when his susceptibility to cold and sore throat will be removed, and the clearness of his vocalization will be permanently established. His case is the counterpart of the lady by whose recommendation he consulted me. I am at liberty to mention her name, for she has always evinced a laudable anxiety that others should experience the same benefit as herself.

In 1849, Miss Louisa Pyne came to me in great distress of mind from the loss of her voice, arising from the condition of her throat, which, for a year or two, had troubled her, and which then appeared so hopeless of remedy, that she had resolved on relinquishing her profession. The tonsil on one side was enlarged. From large experience in similar cases, I could at once charge the diseased gland with much of the annoyance to which my young patient had been so long subject. All thickening was removed by the knife, and from that day she improved in health; the throat assumed a healthy appearance, the voice regained its power and improved in quality—in the latter respect, to such a degree, that its equal has not been met with, in the opinion of many first-rate judges, including the renowned Miss Stephens (now the Countess of Essex), since the heyday of that excellent lady. But not only Miss Louisa Pyne, but many other vocalists of the present day, will tell Mr. Toynbee, that they owe the recovery and unwavering stability of their voices to my operations on the throat. I am aware, that I am travelling rather out of my way, or, rather, anticipating my subject by here combating the absurdities quoted by Mr. Toynbee in relation to the voice. Of those anon.

The second case which occurred so opportunely, was that of a young officer, whose regiment is just ordered out to Ceylon, and, before going, he was anxious to consult me respecting a deafness which has troubled him, to a greater or less extent, for the last three years. On examination of the outer passages, everything was found healthy; but, on inspection of the throat, the condition which I have so frequently described as productive of deafness was discovered. Dr. Daniell, of Grosvenor-street, happened to be in waiting at the time to see me in the adjoining room; and, on my mentioning to my patient that I wished to illustrate an important fact in medical science, by reference to his case, he politely consented to my inviting that gentleman to be present at the consultation. On taking the admeasurement of the hearing distance of my patient, it was found that he heard my watch about a foot from the right ear, and at least a yard and a-half from the left ear. The outer passages, as I have said, were perfectly healthy; but in the throat we

found both tonsils enlarged, with congestion of the surrounding mucous membrane, and while the tonsil on the left, the hearing side, was projecting prominently into the area of the throat, the tonsil on the right, the deaf side, could not be seen at all, though a slight fulness of the anterior arch indicated to the practised eye what existed beneath it. On introducing the finger, the tonsil was found stealing upwards towards the vicinity of the guttural opening of the Eustachian tube on that side, irritating, by its presence, the surrounding mucous membrane, interposing a barrier to the free descent of mucus from the posterior nares, interfering with the action of the tensor and levator palati muscles—the muscles which, by stretching or raising the palate, necessarily open the guttural extremity of the Eustachian tube (a), and thus, in a variety of ways, obstructing the free admission of air to the tympanum, to the detriment of the hearing; in proof of which, I directed my patient to inflate the tympanum by stopping the nose and mouth. The experiment immediately enabled him to hear my watch at more than double the distance. On the left side, where no more deafness existed than might be fairly accounted for by the condition of the mucous membrane of the throat generally, I drew the attention of Dr. Daniell to the greatly enlarged tonsil, freely encroaching on the area of the fauces, while the sulcus formed by the arches of the palate was only filled up by the tonsil in its lower half, leaving quite a hollow, in which the end of the finger could be buried in its upper half. And now as to the treatment of this gentleman. It does not follow, that because a patient comes to me with enlarged tonsils, attended by deafness, that the operation of excising them necessarily follows, as Mr. Toynbee would have it believed. No; I did not excise these tonsils, because I believed their enlargement was of comparatively recent formation, and therefore very possibly admitting of relief by a judicious alterative treatment. In the event of failure, I shall then excise these morbid growths with a reasonable expectation of success, and a positive certainty that the operation cannot possibly be productive of harm.

Mr. Toynbee having alleged that I had not adduced satisfactory evidence in favour of my position, that the Eustachian tubes are pressed upon by enlarged tonsils, I could not refrain from introducing a case which appeared to me confirmatory of my views, and which came under my observation so *àpropos*, at the same time, affording me an opportunity of showing it to a gentleman so well known in the Profession as Dr. Daniell. So convinced was that gentleman of the truth of my position, that he could not help exclaiming, "Why do you not publish this important and conclusive fact to the Profession?" On my assuring him I had done so in a series of papers in the *Medical Gazette*, so far back as 1841, he expressed his astonishment that it was not more generally known.

With these prefatory remarks, I proceed to the contents of Mr. Toynbee's paper, and I regret that it will be my duty to expose much unfair criticism and false quotation, arising, I fear, from an anxiety to put down a mode of treatment which he evidently misunderstands. Such conduct is totally inconsistent with the honourable sentiments expressed in his exordium. Notwithstanding the denunciations of Mr. Toynbee, the truth upon the subject of enlarged tonsils will ultimately prevail, even if it does not already; nor will his talk about "calamitous results," "uselessness," "injurious effects," "aggravation of the deafness," "voices completely ruined," "derangement of the general health," all of which have an existence only in the imagination of this gentleman, interfere with a practice which is now known to thousands and thousands of the friends of patients who have derived advantages the very opposite of those which have been so erroneously ascribed to these operations.

It is desirable that the question should be opened and discussed, for if a tithe part of the injury which is imputed to these operations could be substantiated, it is high time they should be discontinued. But I am prepared to prove that the very opposite effects have been produced, and the truth of the following positions:—

1. The tonsils, when enlarged, are occasionally productive of deafness, are damaging to the sonorous vibration of the voice, by blocking up the nasal passages; interfere with deglutition, impede respiration, obstruct the mucous secretion, which is constantly flowing from the membrane of the nasal cavities; are a source of irritation to this same mucous membrane; and are the frequent cause of cough, more especially when the uvula participates in the local derangement of the parts.

2. The tonsils, when not enlarged, can neither be seen nor felt; therefore it is unfair to ask, "ought the tonsils to be excised in the treatment of deafness?" When in the natural state they cannot be cut away; therefore the phraseology should be, ought the enlarged tonsil, &c. The same remark, as regards excision, applies to the uvula. No surgeon can excise the tonsil unless enlarged. No surgeon would remove or touch the uvula, unless elongated or otherwise diseased.

3. The effect of the excision of enlarged tonsils is frequently to remove existing deafness, to clear the muffled or nasal voice, to disembarrass the muscles of the throat engaged in deglutition and respiration; but, above all, to restore the general health, which is so frequently deranged by their presence.

I shall first show how unfairly Mr. Toynbee has quoted from my pamphlet on Throat Deafness, and then point out the contradictions of which he has been guilty. He says, "Mr. Yearsley advocates the excision of the tonsils, uvula, or portions of the palate, in four distinct classes of cases, which I will examine separately. The first class consists of those cases where the tonsils '*press on the mouths of the tubes, so as to cause obstruction or occlusion.*'" ("Yearsley on Throat Deafness," page 4.) Now, reader, I will quote the passage entire, at page 5, not 4, wherein these words occur; and then, I will ask you whether Mr. Toynbee might not have been more candid in his quotation, and cautious in his phraseology?

"The tonsils are placed in the vicinity of the Eustachian canals, and, when considerably enlarged (the enlargement extending in an upward direction,) they *press upon the mouths of the tubes so as to cause obstruction or occlusion.* The fact has probably escaped the notice of others, in consequence of the enlarged tonsil not being seen on an examination of the throat. In point of fact, it must be felt for to be detected. The inflammatory action attendant on the enlargement of the tonsil-gland produces adhesion to the arches of the palate between which it is placed, and these adhesions prevent its advancing into the area of the throat, and thus it escapes detection; were it otherwise, defective voice and speech might be the result, but not deafness. If the enlargement encroach still more on the area of the fauces, then deglutition and respiration may become affected; and with these, of course, the general health suffers deterioration, so that the tonsil glands, in a state of enlargement, give rise to a variety of derangements, dependent upon the position they take up in the throat."

Had Mr. Toynbee quoted this passage entire, instead of the half-dozen words which he found in the midst of it, he would not have ventured the observation, that excising an enlarged tonsil "is opposed to every rational and scientific principle which should guide a surgeon in the performance of an operation." It is quite clear to me, that Mr. Toynbee has a most erroneous notion of the circumstances under which excision of the enlarged tonsil in deafness is resorted to; he has, I fear, overlooked the grand fact which the above passage discloses. I can assure him, that when he acts upon it he will find it to be a material adjunct to his aural manipulations and therapeutics.

But, asks Mr. Toynbee, if Mr. Yearsley believes that occlusion of the Eustachian tube only "occasionally" takes place from the pressure of an enlarged tonsil, how has it happened that his experience in tonsil-cutting has exceeded three thousand operations? His words are:—"What Mr. Toynbee's experience may be in tonsil-cutting, I know not; but I may state, that my own has extended over many years, and has exceeded 3000 operations."—*Medical Times and Gazette*, April 23.

Upon what grounds does Mr. Toynbee infer that this large number of operations has been performed in cases of deafness? From the several quotations from my book, it is quite clear that Mr. Toynbee has read it attentively; and yet he has not had the liberality to quote the passage, (which I now do for him,) wherein it is shown that enlarged tonsils are excised in a variety of ailments besides deafness, in the proportion probably of ten to one.

At page 67 will be found:—"To assure my readers of the

(a) I cannot conceive what could have induced Mr. Toynbee to write a paper for the Royal Society, to prove that these muscles opened the guttural extremity of the Eustachian tube! Who ever doubted the fact?

perfect adaptation of the instruments, I need only remark, that I have now removed upwards of 3000 morbid growths from the throats of more than 2000 patients, variously afflicted with the ailments to which these enlargements mainly contribute or entirely give rise, such as imperfect, thick, and nasal speech, difficult deglutition, impeded respiration, throat cough, throat deafness, and, though last, not least, the imperfect development of health and strength in youth. I have performed this large number of operations with these instruments without one failure or accident. If surgeons generally were aware of the entire safety and simplicity of the operation, its more frequent performance would, I am sure, soon put an end to all debate on the description of instruments to be employed, and especially as to any difference of opinion of the curative results of the operation."—"Yearsley on Throat Deafness," pp. 67, 68.

But, not satisfied with misquoting me, Mr. Toynbee would wish it to appear that I had taken credit to myself for the dissection of 120 ears, which, in point of fact, had been made by him; but the context shows the very reverse, for I quoted the fact as "corroborative," by their results, of views previously enunciated by me. Indeed, I should be sorry to be thought by my professional brethren to have wasted so much valuable time as Mr. Toynbee has done in dissection of ears, the *cui bono* of which I have yet to learn, for it may fairly be asked, what new or useful fact has Mr. Toynbee yet brought forward in the treatment of deafness? With the microscope on the one hand, with the dissecting-knife on the other, supported by great apparent zeal in the cause, much was expected of Mr. Toynbee; but it is not too much to say, that the Profession are disappointed. And now, by repudiating the treatment of deafness through the throat, he will still further inflict injury on his professional judgment. He is quite wrong in supposing that "the intelligent members of the Profession agree with him;" for almost all the patients upon whom I have operated have been sent to me by my professional brethren; and, as to authorities, every work except the one he has quoted is against him.

Every one who will take the trouble to read the observations of Itard, will be quite satisfied of the occasional obstruction of the Eustachian tube from the presence of enlarged tonsils. ("Traité des Maladies de l'Oreille," pp. 170 to 180, Vol. II.) In Deleau's work, I find a remarkable confirmation of my own views. He concludes the relation of a case in which the enlarged tonsils projected into the throat by remarking:—"Ce malheureux entendait aussi bien que moi;" and then goes on to say, "C'est plutôt lorsque ces glandes sont sujettes à passer à l'etat d'inflammation aigüe, ou quand elles sont environnées d'un cercle rouge et tuméfié qui envahit les parois latérales du pharynx qu'on s'aperçoit de l'affaiblissement de l'ouïe, ou de la naissance d'un bruit d'oreille que les malades comparent à un bouillonnement d'eau ou au bruit du feuillage agité par les vents. Une disposition plus grave encore que prennent ces corps glandulaires, c'est leur developpement d'avant en arrière, de manière à écarter les piliers du voile du palais. La dureté d'oreille accompagne presque toujours les glandes aplaties qui tendent plutôt à s'enfoncer dans les chairs qu' à faire saillie dans l'arrière-bouche. Difficiles à atteindre avec le bistouri, elles se dérobent encore plus aux nombreux instruments inventés pour faciliter les manœuvres des chirurgiens inexperimentés. J'ai eu occasion de voir beaucoup de personnes qui en portent de semblables; leur surdité, presque toujours rebelle aux traitements ordinaires, ne guerit qu' après l'opération par laquelle je débute toujours quand elles y consentent.—"Recherches Pratiques sur les Maladies de l'Orielle," p. 70-71.

From the earliest writers to the present time the fact has been noticed. Wathen mentions enlarged tonsils as one of the sources of deafness most certain to be removed "by chirurgical assistance." Valsalva relates a case of ulcerated tonsil, in which the presence of a tent blocked up the Eustachian tube, and occasioned deafness. In short, it is a fact which cannot escape the notice of any intelligent or careful observer, and no theoretical speculations of Mr. Toynbee about the natural condition of the Eustachian tube can controvert it.

But, were it the case, that the tonsils, in a state of enlargement, never press upon or occlude the openings of the Eustachian tubes, I should still advocate the removal of the disease, knowing, as I do, how fruitful a source of annoyance to the patient is the presence of enlargement of these glands. The various ailments to which they give rise are almost invariably removed by their excision. So generally is this the case, that I have no hesitation in saying, that no operative proceeding, in the whole range of surgery, is so uniformly beneficial, as excision of morbid growths of the tonsils; neither is there any operation so safe, or more free from subsequent injury to the patient, always assuming that it is done by an operator who is an adept at his work.

Of what do these morbid growths consist, the removal of which is to produce such "calamitous results," &c., &c. They consist of deposits of fibrin arising from chronic inflammation of the tonsil-glands; the deposition gradually becomes organised, and, in the course of time, indurated or hypertrophied,—a condition which no local application can possibly correct. I will not insult the understanding of my readers by arguing the point, as to how the extirpation of such morbid growths (for, be it remembered, the tonsil gland itself is never removed) can possibly have any "intimate relation with other organs, especially in woman," —how their removal can produce "a general debility, with its various accompaniments,"—how the two young ladies, after "*extirpation of the tonsils*," (mark, reader, the phraseology) lost their health and their mammæ, and complained of great disturbance in the other functions. I commend the following anecdote to the consideration of Mr. Toynbee; for it appears to me, that he does not duly estimate the influence of the disease with which these young ladies' throats may have been affected, in producing such disastrous results. Three or four years ago, I operated on a young lady from Leeds with great success. *Twelve months afterwards* I received a letter, begging to know whether an ophthalmia, which had recently come on, was likely to have been the consequence of my operation!

But how are we to reconcile the conflicting statements of Mr. Toynbee? At the bottom of the second column of his paper he says, "My own opinion, however, is, that this excision may generally be dispensed with except in extreme cases,—that it should be resorted to only where *the health evidently suffers from the enlargement, and where the tonsils interfere with the functions of respiration or deglutition.*" At the top of the last column but one we find the following passage: "A second way in which the excision of the tonsils acts injuriously, is *by deranging the general health.* I have seen numerous instances in which *the patients* have dated the origin of a general debility, with the various accompaniments, to the extirpation of their tonsils. But I will not suppose that Mr. Toynbee participated with his patients in the same sage opinion, and therefore cannot conceive why he should have quoted their crude notions. After all, it would seem, that we are pretty nearly agreed upon the subject, for, in a foot-note, I find Mr. Toynbee saying, "I have no doubt that, in the very small number of cases of deafness benefited by the excision of their tonsils, the temporary relief that has been afforded has arisen from the diminution of the congestion of the mucous membrane of the tube." Undoubtedly; who has denied that this is the fair explanation of the fact? But, having admitted the "very small number," I have hopes that when Mr. Toynbee has had larger experience upon the subject, he will see reason to admit, that a *very large number* are relieved, not *temporarily*, but *permanently*, by the operation. Such is the result of my own experience.

Dr. Horace Green, of New York, a great authority on the subject, and an accomplished operator, says:—

"When hypertrophy (of the tonsils) is accompanied by induration, excision of the enlarged gland is almost the only method of treatment by which permanent and effectual relief can be obtained. This fact ought to be better understood by the Profession than it seems to be; for the practice of painting these morbid growths with the tincture of iodine, or of cauterising them with the solid nitrate, is still continued, and patients are daily being subjected to this annoying and useless practice, often month after month, with the apparent expectation, on the part of their attendants, that enlarged and indurated tonsils may be discussed by these applications."

"When the disease is recent, and the enlargement is soft, this treatment may prove serviceable in some cases; but more frequently, even under these circumstances, the effect of the applications has been, in my experience, to increase rather than to diminish the morbid growths; consequently, for a number of years, I have been accustomed to practise excision in the treatment of enlarged and indurated tonsils,

whenever this operation could with propriety be performed."—*Green on Bronchitis, etc.*, pp. 210, 211.

The faith which some surgeons appear to have in local applications, in the face of their evident inefficiency, is most remarkable. Some time ago, a young lady was brought to me from Reading, by the surgeon of the family, who wished to have my sanction to his continuance of the local remedy of painting the enlargement with the nitrate of silver for some months longer. He had then applied it for three months. My opinion was, that he had better discontinue the practice. The patient dreaded an operation, and the application, therefore, went on daily for another month, after which the mother and daughter came again. The ailments were thick speech, nasal obstruction, occasional deafness, susceptibility to cold, and general debility. The operation was performed, and my patient declared that it gave her no pain, and caused less inconvenience than the treatment to which she had been daily subjected for months. So successful was the case, that within a month from that time, I was required to operate on another daughter, on her way to school in the neighbourhood of London.

To continue authorities, what says Mr. Fergusson?

"The amygdalæ occasionally are permanently enlarged: the condition gives rise to difficulty of swallowing, sometimes even of breathing, change of voice, hoarseness, *deafness*, and other ailments; and, in the event of constitutional remedies and local applications having proved of no service, either as regards the state of the mucous membrane or tonsils, then a portion of one or both glands should be removed."—*Fergusson's Practical Surgery*, page 602.

Corresponding remarks are made in regard to the elongated uvula; but not only by Fergusson are the operations advocated, but by every other modern writer on surgery. What says Mr. Liston?

"The uvula, when affected by chronic enlargement, which has resisted judicious treatment, when altered in structure, may be safely and with propriety abridged. Constant irritation about the glottis, and troublesome cough and expectoration, are thus often got rid of at once."

In regard to enlarged tonsils, he says, "The enlargement is but an opening out, or simple hypertrophy, of the gland; the surface heals kindly, and there is no reproduction of the tumour. Were the growth not an adventitious one, the practice could not be defended, and it would not answer the purpose permanently. The prominent part of the swelling may safely be removed from one or both sides." In another place, he speaks of the inconveniences they produce, and says, "Sudden death from enlarged tonsils has been known to happen."—*Liston's Surgery*, p. 295.

What says Mr. Syme?—

"Enlargement of the tonsils occurs very frequently at an early period of life, impeding respiration, especially during sleep, rendering the voice husky, causing a disposition to sore throat, and occasionally producing a degree of *deafness*. . . . The operation, when properly performed in circumstances really requiring it, affords, with perfect safety, such an amount of speedy and permanent relief, as justly to merit the title of a substantia improvement in the practice of surgery."—*Syme on the Improvements Introduced into the Practice of Surgery during the last Thirty Years.*

That my neighbour, Sir Benjamin Brodie, approves of these operations, may be gathered from the following fact:—His friend, Admiral S——, had made an appointment with me to excise enlarged tonsils in the case of his daughter. On his way to my house he had occasion to call upon Sir Benjamin, to consult him in regard to another member of his family, and happened to say, "I am going next door to have my daughter's throat cut." "Oh, sit down, I will do it for her!" "No," said the Admiral, "I must keep my appointment; besides, whilst I should come to you for any other surgical operation, I should go to Yearsley for any matter connected with the throat; practice makes perfect."

The limited space which I can fairly claim to repel the attack which has been made upon my practice by Mr. Toynbee, precludes the possibility of my showing how unfairly my opinions have been quoted; and I can, therefore, only say, that it will give me much pleasure to send the pamphlet on Throat Deafness to any gentleman who may be sufficiently interested in the question to read it. But I cannot conclude my paper without calling the attention of the Profession to a most important fact in connexion with enlarged tonsils. The presence of these tumours retards the growth of children. I have observed the fact in numerous instances, and it is probably to be accounted for by the enlargement exerting more or less pressure on the carotid artery, thus impeding the ready flow of blood to the brain. I now merely mention the fact, that the observation of others may be directed to the subject. Many a time and oft has a parent brought a child to me with enlarged tonsils; and, on my asking if any other child were similarly affected, the answer has been, "Oh, no; my next child (one, two, three, and even four years younger,) is a fine healthy child, taller and stouter than this one, who is always delicate."

15, Savile-row.

THE LONDON
PRACTICE OF MEDICINE AND SURGERY.

KING'S COLLEGE HOSPITAL.

ACUTE RENAL DROPSY.—COMPLETE RECOVERY.

[Under the care of Dr. BUDD.]

Case 1.—Mary Callan, aged 26, a stout and florid Irish woman, who had lived for the last fourteen months as a domestic servant in London, was admitted on April 23, 1853. She was then suffering from general dropsy; there was great œdema of the legs and thighs, puffiness of the face and hands, and a slight degree of ascites. She complained of great pain and aching in the loins; was very thirsty, and had but little appetite. Her tongue was dryish, and covered with a white fur. The urine was pale in colour, and had the peculiar smoky tint so diagnostic of an albuminous condition of that fluid. When heated, or treated with nitric acid, it deposited albumen in moderate quantity. The pulse was slow, averaging only 52 beats in the minute. Skin harsh and dry. There were no abnormal sounds detected on auscultating the chest. She stated that her illness was of four days' duration, and had commenced by thirst and slight feverishness, which, after a-day or two, were followed by swelling of the legs, thighs, face, and shoulders. She had been living well, but had been in the course of her avocation much exposed to cold and wet. She had frequently experienced what she considered "rheumatic pains," but had never had either rheumatic or scarlet fever.

℞ Pulv. jalap. co. ʒj.; statim sumend, et rep. cras. primo mane.

℞ Liq. am. acet. ʒ ss.; mist. camph. ʒj. 4tis. horis. The patient is to be strictly confined to bed.

25th.—There is certainly some decrease in the degree of anasarca. The bowels have been very freely purged, and the skin is less harsh and dry. The urine still contains albumen, and by the aid of the microscope the desquamated casts of the uriniferous tubuli were detected.

C. C. lumbis ad. ʒ vj. Rep. pulv. o.m. sumend. Rep. mist.

26th.—She still complains of pain in the loins, more especially on the left side. The œdema is, however, fast subsiding. Free purgation is kept up.

Pt. medicamenta.

27th.—The urine contains but a very small quantity of albumen; it has a slightly acid reaction. She is very much better, and her legs are almost free from swelling.

29th.—The swelling of the extremities and face may now be said to have quite disappeared. Tongue clean; appetite good; urine in large quantity, nearly five pints being passed in the twenty-four hours; very slightly albuminous.

May 6th.—The urine does not now contain any trace of albumen. The patient is very feeble, but otherwise in a satisfactory condition.

℞ Ferri citrat. gr. iii. ex. aq. pur. ʒiss. ter. die post cibum sumend.

16th.—Since the last date, the patient has continued to improve, and may now be considered as quite well. The urine has been several times examined during the past week, and no albumen can be detected. She has for some days been dressed, and about the ward; and although she still complains of weakness, yet her aspect is florid and healthy. To be discharged.

ACUTE RENAL DROPSY.—COMPLETE RECOVERY.

[Under the care of Dr. BUDD.]

Case 2.—Andrew Cole, aged 40, a labourer, was admitted on April 30, on account of slight symptoms of dropsy. He stated,

that for two months past he had been troubled with a catarrh, which he could not shake off. The only disease from which he had ever suffered previously, had been an attack of ague, 20 years ago. Four days before admission, his catarrhal symptoms had become aggravated, and he observed for the first time a slight puffiness about his face, neck, and legs. The breathing was also much oppressed, and he passed a smaller quantity of urine than natural. There was no pain in the back. On examining the urine, at the time of admission, Mr. Cheadle, the physician's assistant, found that it contained a very considerable quantity of albumen. There was swelling of the legs, thighs, and face, but not to a great degree; and as the man did not feel himself very ill, it was difficult to persuade him that his complaint was of a sufficiently serious nature to necessitate his confinement to bed. Dr. Budd ordered him to take—pulv. jalap co. ℈ ij. om. mane; liq. am acet. ℥ss.; aq. pur. ℥iss.; 4tis. horis.

May 2nd.—The face is still swollen, but the dropsy has disappeared from other parts. Urine albuminous, slightly acid, sp. gr. 1,020. The man complains chiefly of cough, and difficulty of breathing. Sputa thin, frothy, and transparent. Pulse 56. Skin harsh and dry.

Rep. mist.; adde. sing. dos. vin. ipecac. ♏ xv.

4th.—Less cough; the puffiness of the face has quite subsided. Tongue furred, but appetitite moderately good. Urine neutral, containing a small quantity of albumen. Bowels very freely open. As the medicine has caused vomiting, it is to be repeated without the ipecacuanha wine.

6th.—There is now in the urine but the least possible trace of albumen, and no œdema of any part remains. The bronchitic symptoms are relieved, though the patient still complains of some sense of obstruction in the chest. Pulse 60. Skin moist.

℞ Ferri citrat. gr. iij.; aq. pur. ℥ iss. bis. die.

16th.—The man may now be considered as quite well; the urine contains no albumen, and is in full quantity. He is discharged.

In commenting on the above cases, Dr. Budd observed, that the main object to be kept in view in the treatment of acute renal dropsy is to relieve, as speedily as possible, the inflammatory or congested condition of the kidneys, and that the means by which this may best be accomplished are,

1. General bleeding or cupping on the loins; or, if the patient cannot well bear the loss of blood, large mustard-poultices applied daily to the loins, for the sake of drawing the blood to the surface.

2. Compound jalap powder, or some other purgative of like action, in full doses, so as to cause copious watery discharges. These not only relieve congestion of the kidney, but probably serve to eliminate through the bowels noxious matters in the blood, which must always exist when the action of the kidneys is very defective, and which, indeed, sometimes exist previously, and conspire, with the influence of cold and wet, to produce the inflammatory or congested condition of the kidney in which the disease consists. No purgative is more generally suited for such cases than the compound jalap powder, and it is best given in a single dose, sufficient for the object desired, in the morning before breakfast. It then, in addition to the drain it causes from the mucous membrane, only sweeps away the refuse of digestion in the bowels; whereas, if it be given during the course of the day, it sweeps away food which the stomach has had the trouble to digest, but the nutritious elements of which are not yet absorbed.

3. After the congestion of the kidneys has been somewhat relieved by these active measures, it may be further much lessened by promoting free perspiration. Suppressed action of the kidneys, by the influence of cold and wet, seems to be a frequent exciting cause of acute renal dropsy, and afflux of blood to the extended surface of the skin and free perspiration greatly relieve the congestion of the kidneys. Perspiration may be promoted by warmth; by the liquor ammoniæ acetatis, given alone, or in conjunction with ipecacuanha and camphor mixture; and, if need be, by an occasional hot-air bath.

4. A fourth means of relieving the kidneys is by keeping the patient strictly confined to bed. The warmth of bed promotes perspiration, and the horizontal posture tends to relieve congestion of the kidneys by facilitating the return of blood from them, and by lessening the rate of the pulse.

The active measures that are expedient, with the view of relieving, as speedily as possible, the congestion of the kidneys,—the continual escape of albumen in the urine, and the spare diet that must, of course, be enforced while feverish symptoms exist,—soon induce a state of anæmia, so that when the case, as happened in the preceding instances, terminates favourably, and albumen has ceased to pass off in the urine, small doses of the citrate, or some other preparation of iron, are generally useful.

ST. BARTHOLOMEW'S HOSPITAL.

MELANOSIS OF THE SKIN OF THE BACK.—EXCISION. RECOVERY.(a)

[Under the care of Mr. WORMALD.]

Edward Kent, aged 8, a fair-complexioned, florid, and healthy-looking boy, was admitted Feb. 20, 1852. Over the middle of the base of his left scapula was a pedunculated and somewhat pendulous tumour, much resembling, in size and shape, a common "puff-ball" fungus. Its top was flat, and measured two inches round, while its base was but an inch and a quarter, its thickness being about an inch. It was covered in all parts by a thin layer of cuticle, through which its deep blue, almost black, colour was easily visible. It was doughy-feeling, and not hard. Whether there had ever been a mole on the part or not, could not be satisfactorily ascertained, but it seemed probable that there had. The growth had been noticed for five years, and had slowly increased, without occasioning any pain, excepting when pressed.

Feb. 21.—Mr. Wormald excised the tumour, together with part of the surrounding skin. On examining the wound, three small, distinct black masses were discovered in the cellular tissue beneath, and, accordingly, were dissected out. The edges of the wound were then brought together.

The healing process was soon completed, without any unfavourable symptom, and the boy was then discharged.

A section of the removed tumour showed a solid, circumscribed homogeneous collection of black matter, over which the cuticle was entire, and beneath the base of which, in most parts, a layer of the true skin could be distinguished. Thus the deposit appeared to have been primarily located in the pigmentary layer, or rete mucosum:—

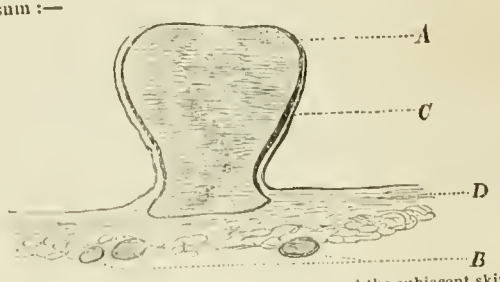

Diagram representing the section of the tumour and the subjacent skin:—A. Solid melanotic mass, of a dead black colour. B. Small isolated deposits of the same disease in the subcutaneous tissue. C. Cuticle reflected over the tumour, easily separable at the sides, but closely adherent on the upper surface. D. True skin.

Its microscopic characters were well marked, and precisely as already illustrated in one of the preceding cases.

May, 1853.—This little boy probably remains well, as he has not again applied for advice.

The first (Cherwood) of the five cases of cutaneous melanosis which we have now recorded affords an example of the return of the disease in the cicatrix left after its removal by ligature; but it must be remarked, that in none of them (excepting the case of E. Bentley) had the affection assumed any of those features which are popularly recognised as belonging to cancer. A small, black, solid-feeling lump in the skin, unattended by the slightest pain, showing but little disposition to ulcerate or bleed, and not accompanied by depraved general health,—such have been their apparently unimportant characters thus far. In each case, the wound made by the operation has healed, and the patient, in seemingly good health, has returned to the ordinary avocations of life. They are examples, however, of but the first stage of the complaint; and it is to be feared, that the excepted case (that of Bentley) affords but too good an illustration of what their future histories may be expected to show.

(a) From an error in the completion of the woodcut, we were prevented from giving this case in its proper position in the series of those illustrative of the same disease published in our last week's reports. The diagram now given is the one referred to in the case from the Royal Free Hospital.

GUY'S HOSPITAL.

REDUCTION OF A SCROTAL HERNIA WHICH HAD BEEN FOR NEARLY SIX MONTHS IRREDUCIBLE.

[Under the care of Mr. HILTON.]

On April 23, 1853, Alfred Kemp, aged 24, a farm labourer, was admitted on account of a large scrotal hernia, which had, for nearly six months, baffled the persevering attempts at reduction made by his medical attendants. He stated, that for two years he had been subject to a small swelling in the groin, but, that it had never occasioned any trouble, until about six months ago, when, during an effort at lifting, it suddenly increased in size, and passed down into the scrotum. Immediately afterwards he suffered severe pain with sense of dragging in the abdomen and back, but no symptoms of strangulated bowel manifested themselves either then, or since. The inconvenience which it had occasioned him had, however, quite prevented him from attempting to resume his work. The treatment pursued in the country had consisted in the exhibition of purgatives, and of mercurials, with partial confinement to bed. Cold had also been applied to the tumour. On examination, there was found in the left scrotum a large, movable, irregularly nodulated mass (omentum), which was soft, flaccid, and free from tenderness. Nothing like intestine could be felt. The neck of the tumour at the external abdominal ring appeared to be tightly constricted. The bowels were ascertained to have acted regularly each day. Having made careful and persevering, but ineffectual attempts to effect the reduction of the tumour, Mr. Hilton directed—1st, That the man should observe an undeviatingly recumbent posture. 2ndly, That he should have solid food, with not more than half a pint of fluid in twenty-four hours. 3rdly, That a bladder of ice should be kept constantly applied to the scrotum, the latter being elevated on a cushion placed between the thighs. 4thly, That a draught, containing sulphate of magnesia and colchicum wine should be administered three times daily. Mr. Hilton remarked, to those present, that to a young man who had to earn his livelihood by hard labour, it was a matter of very great importance to be relieved, if possible, of such an affection as the present, which, apart from the inconvenience necessarily attendant on its bulk, would perpetuate a liability to the occurrence of strangulation. He pointed out, that the important obstacle to reduction was probably offered by the loaded condition of the bloodvessels of the protruded part, and that, consequently, the indications for treatment were—1st, To decrease the quantity of the circulating medium generally, as far as might be done without unduly depressing the vital powers; and, 2ndly, by local means to constringe and unload the congested vessels of the incarcerated omentum. The one was to be accomplished by purgation, diuresis, and abstinence from fluids; the other, by the recumbent posture and the application of pressure and of cold. With respect to the last-mentioned agent, Mr. Hilton further remarked, that, in the case of tumours within the scrotum, the use of cold, by exciting constant and powerful contraction of the dartos, insured the application of the best and most uniform kind of pressure which could possibly be exerted. The effect of purgation was also extremely valuable, since not only did it unload the vascular system generally, but that part of it especially involved in the existing lesion, the omental veins being, with those of the intestines, tributary to the vena porta. It was just possible, also, that, by keeping the stomach and transverse colon comparatively empty, the contractions of those organs, to both of which the omentum is attached, might exert some little influence in tending to drag upwards into the abdominal cavity the displaced portion of omentum. To return to our case. After the afore-mentioned treatment had been rigidly pursued for a few days, it was noticed, that the man's belly had lost its rounded contour, and become pinched in and narrow; the tumour, also, had diminished in size, and felt soft and loose, having lost its plump and definite form. The bowels had been very freely purged.

On the 28th, Mr. Hilton again examined the tumour, and, with very slight pressure, succeeded in passing it up into the abdomen.

On the 30th, the man was discharged, quite free from all the inconveniences of his complaint; and, wearing an efficient truss, the hernia had not again protruded.

THE LONDON HOSPITAL.

ULCERATION OF THE DUODENUM OCCURRING AFTER A SEVERE BURN.

[Under the care of Mr. CURLING.]

In a paper in the twenty-fifth volume of the "Medico-Chirurgical Transactions," Mr. Curling called the attention of the profession to the fact of the frequent occurrence of ulceration of the mucous membrane of the duodenum, in patients suffering from the effects of severe burns. In this communication, the particulars of twelve cases are given, in which that lesion was limited to the duodenal portion of the intestinal tract. In more than one, it constituted the direct cause of death, a large artery having been laid open, and uncontrollable hæmatemesis, with bloody stools, having resulted. The ages of the patients varied from 24 to that of infancy, the greater part of them being young children. The glands of Brunner being the only structures peculiar to the duodenum, Mr. Curling has selected these as being probably the parts in which the inflammatory affection originates; his theory being that increased action, with congestion, is set up in the intestinal mucous membrane, in consequence of the destruction of a large portion of the cutaneous surface of the body. The reason why, out of the whole mucous tract, the duodenum, or the glands of Brunner, should be selected, is, however, not yet known. The pathological fact remains, notwithstanding, an undoubted and extremely interesting one; and we have great pleasure in strengthening it by the narration of the following case:—

J. M., a feeble child, aged 2 years, was admitted on April 3, 1853, suffering from the effects of a very severe burn, which had involved the neck, face, and both arms. The exposed surfaces were dressed in the usual way, and during the first few days the child was in a condition of great prostration. After this a slight diarrhœa came on, and it was noticed that deep pressure over the right hypochondriac region appeared to occasion pain. The motions were of a dark colour, but no pure blood was noticed. Mr. Curling prescribed small doses of the pulv. cret. co. c. opio, under the influence of which the relaxation was checked, and the stools became of a greenish colour. At the end of the first fortnight the child appeared to be better, and in a tolerably hopeful condition. The superficial sloughing was, however, extensive, and induced great exhaustion; the child took food badly, gradually lost flesh, and died at the end of the third week after the injury.

At the *post-mortem* there were found in the duodenum four patches of ulceration, the largest of which, the size of a shilling, was situated exactly over the head of the pancreas, and, having extended through the coats of the intestine, had exposed the cellular capsule of that gland. The parts were, however, closely adherent, and no extravasation into the peritoneal cavity had resulted. The other ulcers were two of them each as large as a sixpence, and the remaining one about the size of a split pea. The ulcerated surfaces of the whole were free from slough, and looked as if in a healthy healing condition. Their edges were in some parts abrupt, and in others bevelled off gradually, in several parts the healing process having evidently commenced. The mucous membrane generally was of a pinkish colour.

We must not omit to mention, that in one of Mr. Curling's cases, a young woman, aged 24, who died of exhaustion eight weeks after the accident, the ulcers were found to be *perfectly cicatrised*. Respecting the treatment of those cases in which the symptoms of this complication are well marked, we extract the following from the paper before alluded to:—"The plan I should be disposed to adopt, when I had good reason to suspect that inflammation or ulceration was going on in the duodenum, would be the application of leeches to the skin of the corresponding part of the abdomen, if not implicated in the burn; the exhibition, at intervals, of a few grains of hydr. c. cretâ, combined with opium, to allay pain; allowing nothing but fluid nutriment of the blandest description."

A MODEL PATIENT.—A patient was recently admitted into the Infirmary at Durham, who, sometime previously, and elsewhere, had had one of his legs amputated between the ancle and knee in so unsatisfactory a manner as to require a further operation. He said he was sure they could cut his leg at the Infirmary just as it should be, for, as it was, "it dangled about, and quite bothered him;" but he thought, if a few inches were taken off, he would be all right. While his wishes were being complied with, be very coolly told the surgeons to mind and cut it high enough; and, after the operation was completed, said it was a pity, when they were at work, not to make a good job of it, and he would gladly have had them take off a few inches more. He is now doing well, and is perfectly satisfied with the result.—*Durham Chronicle.*

LIST OF SCIENTIFIC MEETINGS.

This Evening,	May 28.	ROYAL INSTITUTION.—*Subject* :—"On Air and Water." By Dr. JOHN TYNDALL. Three o'Clock.
——	——	MEDICAL SOCIETY OF LONDON.—*Subject*.—"On the Physiological Uses of the Ganglionic Nervous System." By Dr. DAVEY. Eight o'Clock.
Tuesday,	May 31.	ROYAL INSTITUTION. — *Subject* : — "On the Electric Telegraph." By W. CARPMAEL, Esq., C.E. Three o'Clock.
Wednesday,	June 1.	GEOLOGICAL SOCIETY. — Half-past Eight o'Clock.
Thursday,	June 2.	ROYAL INSTITUTION.—*Subject* :—"On Technological Chemistry." By Dr. E. FRANKLAND. Three o'Clock.
Friday,	June 3.	ROYAL INSTITUTION. — *Subject* :—"On Some of the Eruptive Phenomena of Iceland." By Dr. J. TYNDALL. Half-past Eight o'Clock.
Saturday,	June 4.	ROYAL INSTITUTION. — *Subject* :—"On Air and Water." By Dr. J. TYNDALL. Three o'Clock.
——	——	MEDICAL SOCIETY OF LONDON.—Eight o'Clock.

Medical Times & Gazette.

SATURDAY, MAY 28.

OUT-PATIENTS IN THE LONDON HOSPITALS.

IN a former article, we ventured to express wonderment at the fact, that a quarter of a million of "suffering poor" apply for out-door relief yearly at six only of the hospitals established in London. Our object being simply the attainment of truth, we feel obliged to any one who kindly supplies us with authentic information; and our thanks are therefore due to Mr. William J. Nixon, Secretary to the London Hospital, for a clear and well-expressed account of the management of the out-patient department of the Institution to which he is attached. He confesses, that he is astonished at the vast disproportion between the total numbers of out-patients relieved at the first three, and those relieved at the last three, of the hospitals that we mentioned. St. Bartholomew's, 85,000; St. Thomas's, 57,200; and Guy's, 40,000! and then London, 16,403; Westminster, 14,000; and the Middlesex, 12,000. "When I consider," says Mr. Nixon, "the amount of labour and trouble involved in the reception and treatment of the comparatively small proportion of cases placed to the account of the London Hospital, my surprise with reference to the larger numbers is, to say the least, in no degree diminished.

We may add, too, Nor is our surprise diminished; for the Medical and Surgical Staff of the London Hospital, which finds its duties quite sufficiently onerous, equals that of any of those institutions where, according to the statements of "the authorities," between four and five times as many cases are relieved.

It appears, that our "quarter of a million" was under the mark. In the London Hospital 1,500 more out-patients were treated in 1852 than in 1850, from the return of which latter year our calculation was made; and these returns do not include the unregistered casualty cases.

And, now, respecting the 18,000 registered cases—their reception and management is no slight matter; they require, as Mr. Nixon observes, waiting halls, most convenient and commodious, and the daily attendance for several hours of 1 physician, 1 surgeon, 3 dressers, 2 dispensers, 1 clerk, 2 porters, and 2 nurses, and the visit of an obstetric physician one day every week. A separate staff, according to the same authority, composed of 1 house-surgeon, 2 dressers, 1 surgery beadle, and 2 nurses, is formed, at the London Hospital, to attend to the non-registered out-patients. We believe this account to be, in every respect, true; and the number of the cases, 18,000 out of a poor population of 500,000, is, perhaps, not disproportionately large. We will, moreover, add, that no hospital is conducted with so little ostentation, or with more ability; and, considering how the work is done, astonishment ceases at the London Hospital contributing so small a number to that astounding total which gave rise to our critical remarks. The staff enumerated by Mr. Nixon, if worked hard, might manage to perform the duties which the members composing it profess to perform; but we deny that three Assistant-Physicians and three Assistant-Surgeons can do more than superintend, in a somewhat hurried way, the cure of 18,000 patients annually during the few daily hours which can be snatched from the anxieties of private practice. What, then, must become of the 182,000 patients seen yearly in the three larger hospitals? Say that each case requires to be seen six times, (many require much more attendance,) that makes 1,092,000 visits. Perhaps the officiating officer may manage to spare three minutes to each case, (not too much for listening to the patient's account of the progress of the complaint, forming his opinion, giving his advice, and writing the prescription,)—that makes a total of 3,276,000 minutes, or 54,600 hours, equalling 2,275 days—not working-days, but 24 hours to the day—amounting to absolutely between 6 and 7 years'-worth of time!!

How the "suffering poor" are seen and tended, it needs no prophet to tell. Each of the three larger hospitals contributes its mite of recognised Medical officers,—three Assistant-Surgeons, three Assistant-Physicians. We beg pardon; that eminent man, the Treasurer of St. Thomas's, has diminished the staff of Assistant Medical officers one-third, concurring in opinion, we presume, with that Governor who said "Anything would do for an out-patient."

O for the pen of a Dickens, to describe the Professional advice thrown at the unfortunates! Those nursed in the lap of luxury, and accustomed to the soothing voice of sympathy in every pain and ailment, know but little of the scenes which take place in the crowded rooms provided for the casualty patient. "What is your name?" "Mary Jones." "What's the matter?" "A swelling of the breast." Surgeon writes, "H. aper. co. ter heb.," and adds, "Take this every other day." "Next patient." "What is your name?" "John Brown." What's the matter?" "The bad disorder." Surgeon writes, "Pil. hyd. ter die. Lot. nig. Take this as directed, go to bed, and don't drink." "Next patient," and so on in wearying, unproductive monotony. Do we say this to blame the Medical Officers; by no means. They have not the time to do more. Unpaid, or insufficiently paid, and overworked, they portion out the minutes devoted to public service, so that the greatest possible amount of relief may be given in the time. But the official staff requires addition in every hospital, instead of diminution; and if the astounding statistical returns to which we have called attention, be really the expression of facts, the strength of the staffs of the hospitals referred to should be doubled, if not tripled.

BETHLEM HOSPITAL.

IT is worthy of remark, that specialties which, so long as they are isolated from the collateral branches of the Profession, savour strongly of empiricism, nevertheless acquire, in their proper position, as branches of the great science of medicine, an elevated tone and an extended sphere of

utility. Ophthalmic surgery, when a monopoly of the quacks, was obscured in a thick cloud of hard and unmeaning names; the anatomical descriptions given of the eye were bad; the views held as to its functions worse. Its diseases were multiplied into such a list as to horrify the reader; while, to a never-ending repetition of the same set of symptoms, were appended methods of treatment both inefficient and puerile. Aural surgery is, at this present moment, in the full enjoyment of a questionable reputation, in spite of the efforts of men of great respectability to bring it within the pale of legitimate surgery. The treatment of the insane approaches a new era. The high, dull brick walls, and the barred windows of the old lunatic asylums, have given way to pleasant gardens, and light and cheerful rooms. The suffering inmates—the patients as they are now properly called—are treated upon scientific principles by men of education and talent; the *post-mortem* appearances are recorded by competent officers; and lectures are given for the instruction of students and of the junior members of the Profession.

In the year of Our Lord, 1815, the Right Hon. George Rose was Chairman of a Committee of the House of Commons, *to consider of provisions being made for the better regulation of madhouses in England*, and the following *morceau* appears in the evidence. An eminent Physician, when asked whether there were any seasons of the year in which particular medicines were administered to the patients in the large hospital of which he was the head, replied:—

"In the months of May, June, July, August, and September . . . we apply generally bleeding, purging, and vomits.

"Q. The treatment is done twice a year, is it not?

"A. The bleeding is.

"Q. What are the months in which the bleeding takes place?

"A. About the month of May and the month of June.

"Q. A periodical bleeding takes place?

"A. Yes, at about a month or six weeks' distance.

"Q. Twice every patient, male and female?

"A. Yes.

"Q. Are you aware that Mr. —— has in his book expressed an opinion, that the practice of vomiting is generally unfavourable?

"A. Yes; . . . people may differ in opinion. I vomit my patients freely."

Were such a record not a sad and humiliating exhibition, it would almost excite the reader to laughter.

Glysteriam donare, deinde saignare, postea purgare,

Molière drew with no exaggeration, in portraying the most absurd scenes in his comedies.

The lapse of twenty-seven years has effected no slight change in our knowledge of the pathology and treatment of mental disease; and we hail as an omen of future good, the establishment of a Course of Lectures in the Royal Hospital of Bethlem. On Thursday, March 12, Dr. Hood delivered an Introductory Address before the Treasurer and a most attentive audience. In it he gave an interesting historical account of the foundation of the Hospital, and of the revolutions which it has undergone, and concluded by a simple and comprehensive classification of the different forms of insanity. He expressed an opinion, that monomania seldom depends upon the aberration of a *single faculty only*, and illustrated his statement by reference to a patient who fancied himself the Saviour. Here (justly observed Dr. Hood,) was not a lesion of the imagination only; there was also a lesion of the judgment and reasoning faculty.

In this opinion we concur, and believe that the view here expressed will help to simplify questions of forensic interest that may arise. Dr. Hood's second lecture took place on the 26th inst.

It would be unjust to the authorities of the Hospital not to mention, that examinations of the bodies of those who die in the Institution are conducted by Mr. Lawrence, and that a record is preserved of each case, and of the appearance found after death.

We venture to suggest the invaluable good that would ultimately ensue from the formation of a Pathological Museum. There would shortly be formed in that museum the richest collection of morbid brains in London, and illustrations of disease in other organs, which would have long before worn out those alive to bodily suffering; an impetus quite new would thus be given to this department of the Profession, now rising into an importance which cannot be over estimated.

CANCER HOSPITALS AND THEIR ADVERTISEMENTS.

There are two Institutions in this Metropolis especially devoted to the treatment of Cancer, both of which enjoy many *privileges* in common. Thus, they are both equally respectable and equally useful; they are both poor; they both endeavour to mitigate this evil, by advertising their respective merits with a zeal, ardour, and disregard of expense, worthy of the best of causes; and they are both presided over by gentlemen who are Surgeons, members of the same College, and so on. The Cancer Hospitals differ merely in the style of their newspaper appeals to the public. The Institution established by Sir Charles Aldis is not very young, though it still remains small, having, it is to be feared, been stunted in its growth. It is to be found in the neighbourhood of Clifford-street; but, unless carefully sought for, will probably—owing to its apparent insignificance—be overlooked. It appears, externally, a kind of doll's-house affair; and taking, as Hood says, "a retrospective review," reminds us of the days when we played at doctors and hospital practice. But, if the establishment be diminutive, the Advertisements sent from it are numerous and important. Here is the commencement of the last gem of this nature with which the world has been favoured:—

"For the Cure of Cancer and Cancerous Diseases.—An Institution, established in 1820, founded by Sir Charles Aldis, M.R.C.S.E., Accoucheur, wherein the use of the knife and mercury are laid aside, having been proved, in some thousand instances, to aggravate, rather than assist, the cure, by increasing the general debility of the system, when it returns with tenfold severity, besides the excessive pain of the operation by the knife is avoided, and in almost every instance a permanent cure is effected."—*Times*, May 23, 1853.

Now, we can assure the concoctor of this wretched, puerile trash, that we would not for one moment deign to honour it with our notice, did we not really feel that, happily, we may prevent some poor, confiding sufferer, the victim of malignant disease, from placing any reliance upon it. To such a person we would say, that the cure of cancer, as a rule, is, unfortunately, a mockery—a delusion. To suppose that the removal of malignant tumours by powerful caustics can be of the least avail in cases where the knife fails to give permanent relief, argues a disposition to credulity, and a degree of mental imbecility bordering upon insanity. In these days of chloroform, moreover, the surgeon gives no pain,—the terrors of the knife are removed; but the prolonged suffering—indeed the extreme agony lasting for hours—which is produced by the escharotics employed by "cancer-curers," can only be imagined by those who have experienced it. The general treatment

of cancerous diseases, also, is best understood by those who are known to be good practitioners in the other maladies to which the human body is liable: for, since there is no specific treatment for cancer,—since every case must be treated according to the general scientific rules which, on most occasions, guide our practice; so "cancer-curers," from being often ignorant of these rules, generally do much harm, and never can do any good beyond that which would be done by every trustworthy practitioner. A man may *see* thousands of cases of a particular disease, and yet remain more ignorant of its nature, and the treatment necessary for it, than he who *observes* one case in a right manner. These remarks, of course, apply equally to the Cancer Hospital,—the hospital, *par excellence*, founded by Dr. Marsden, which endeavours to cajole the public by touching its sympathies and feelings. Just as Mr. Puff obtained a very comfortable living for two years or more, by appeals "*to the charitable and humane*,"—and "*to those whom Providence hath blessed with affluence*,"—so this establishment daily urges its claims by pathetically remarking, "There are few families who have not with grief witnessed the anguish, and sustained the loss, of a relative or friend from that dire disease—cancer; a disease for which the knowledge and science of medicine have hitherto done so little." Our readers have doubtless not forgotten the way in which this charity attracted our attention just twelve months since. The public were then congratulated —in the Cancer Hospital advertisements—on possessing an institution "exclusively devoted to the treatment of this *hitherto*-considered incurable disease;" and it was at the same time stated, that "*several incipient cases*" had been discharged from its wards "*completely cured.*" We need add nothing to the remarks we then made when commenting upon these statements. Suffice it to say, they are as applicable now as they were then. Still, if the public will support this Institution, well and good, we cannot help it. We do trust, however, that it will receive no countenance or aid from the members of our Profession. We have some doubts as to the utility of special hospitals in general; but, of all special hospitals, that for the treatment of cancer borders the most closely upon quackery, and is, consequently, the most to be reprobated.

BOONS TO MEDICAL MEN IN THE PUBLIC SERVICE.

When the Naval Assistant-Surgeons complained, that they were not put on an equality with the other Officers in the service, by having cabins devoted to their use, after much importunity, and many remonstrances in our columns, the principle was acceded to, and the Naval Assistant-Surgeon was declared entitled to a cabin, but with this condition,—"*where practicable.*" In practice, it has been shewn, that though cabins could be found for ladies' maids and others, and even for the valet to Lord Ellesmere, yet that, to find a cabin for the Naval Assistant-Surgeon, is altogether an impracticability. This is boon No. 1. Boon No. 2 has just come to hand. By a notification of March 11, from the Hon. East India Company, which we extract from the *Bombay Times*, "the Most Noble the Governor-General, in Council is pleased to notify, for general information, that, under orders of the Honorable Court of Directors, Medical Officers in Civil employ are henceforth to be held entitled to leave of absence for one month in each year, upon the same terms as privilege-leave is granted to Military Officers in Civil employ."

Now, no doubt, such a privilege would be most gratefully received by the officers whom it concerns; but a little insight into the present condition of the Service in India will, we think, put this alleged boon into the same category with that granted to the Naval Assistant-Surgeons, and both parties may say, in the emptiness of their hearts, "Thank you for nothing." It is all very well to say, "Mr. So-and-so, you are entitled to a month's furlough this year." But, when Mr. So-and-so applies for his leave of absence, from the very circumstances of the case he will be liable to be told, "Very true, you are entitled to it; but, from the want of substitutes to carry on the duties of the Zillah during your absence, it is quite impracticable." This is no imaginary case; it is what must happen. The *Bombay Times* shows, that there are not twelve Civil Surgeoncies in each Presidency whereat such leave could be obtained by the incumbents. In one division of the army there are seven Civil Surgeons at least who could not, by any possibility, avail themselves of the above order, since, in the whole division, there is not a medical officer to spare. The Civil Surgeon is almost invariably the only medical man at the station; so that he cannot, like the military officer in civil employ, transfer his charge to an assistant for a month's recreation. For years past, no supernumerary medical officer has been on the roster; indeed, the whole medical department, in consequence of our enlarging territorial possessions, is numerically inadequate. In none of the divisions are there unattached medical officers for any emergency that might occur; and in some cases, two, three, and even four charges are held by the same individual; while there are many Civil Surgeons who have not, save from emergent calls on duty, stirred from their stations for years, and are not likely to do so even now, Boon No. 2 notwithstanding. We think it would have been more graceful on the part of the authorities, first to have cured an evil which turns their "boon" into a Tantalus cup, or at least to have deigned to specify how that boon could be made available by the parties concerned.

THE NEW MEDICAL REFORM BILL, AND THE NATIONAL INSTITUTE OF MEDICINE, SURGERY, AND MIDWIFERY.

We have been requested to state, that on the 7th of October last year, a Deputation of the Provincial Association waited upon the Committee of Council of the National Institute, (the interview having been requested by the former body,) to confer upon the Bill which is now before the Profession. After much discussion, it appeared that the views and objects of the Association were so entirely different from those for which the National Association and National Institute had been for several years contending, that it was quite impossible for the latter to concur in the provisions of the intended Bill, and the following Resolution was unanimously passed, and a copy furnished to the Deputation. It was stated, however, at the same time, that the National Institute would not obstruct the progress of the Bill.

"Resolved,—That the Bill prepared by the Provincial Medical Association, although it is calculated somewhat to improve the condition and status of the General Practitioners, yet, in the opinion of this meeting, it will not afford that protection, nor secure that efficient education of future members of the Profession for which the National Association and the National Institute have always contended; nor will it secure that independence of the control of the Colleges of Physicians and Surgeons which the General Practitioners throughout the Kingdom have a right to demand."

REVIEWS.

The Treatment of Obstinate Ulcers and Cutaneous Eruptions on the Leg, without Confinement. By Henry T. Chapman, F.R.C.S. Second Edition. Pp. 156. London: Churchill.

In preparing a second edition of his work, Mr. Chapman has not only carefully revised the old subject-matter, but he has also improved and amplified it in several particulars. We can strongly recommend this, as one of the best treatises on the subject to which it relates. The remarks are thoroughly practical; but the author has shown himself well-acquainted with the literature of this branch of surgery, and his treatment is based upon sound views of pathology. The chief feature in Mr. Chapman's treatment consists in the application of bandages, as recommended by Mr. Baynton; but, as the strapping process enjoined by that gentleman often gives rise to great irritation, Mr. Chapman recommends the use of lint dipped in cold water, or in some astringent or alterative lotion, over which the limb is to be strapped with wet bands of linen or calico. Our own opinion, drawn from a very considerable experience, is in favour of the use of warm water, and a superposed layer of oiled silk, and the maintenance of absolute repose in the horizontal position for some weeks, according to the size and the character of the ulcer. But, as it is truly observed by Mr. Chapman, many poor persons are unable to gain admission into hospitals where such a plan can be adopted; and in such cases the treatment recommended in the work now before us is extremely efficacious.

On the Application and Effect of Electricity and Galvanism in the Treatment of Cancerous, Nervous, Rheumatic, and other Affections. By Richard Moore Lawrance, M.A., M.D. Pp. 101. London: Renshaw. 1853.

The connexion of electricity with animal life has often been traced, and the recent researches of Matteucci have proved the existence of this agent in animal muscles; nor has the application of electricity in various forms to the treatment of disease been neglected by the Medical Profession. But partly in consequence of insufficient acquaintance with the *modus operandi* of the electric fluid in disease, partly owing to the time and trouble necessarily involved in its practical application, and partly to the exaggerated pretensions put forward by enthusiastic or interested partizans, the treatment of diseases by electricity has been by no means universally adopted or very generally recommended. We are inclined to believe, however, that this agent, if fairly tested, would be found a very efficacious remedy in many morbid conditions of the human system; and we think the work of Dr. Lawrance calculated to promote its general adoption by the Profession.

We cannot, indeed, affirm with truth, that the author has removed all the difficulties of the subject, nor can we expect, in the moderate space which this *brochure* occupies, any very elaborate treatise upon so wide and extensive a subject as the connexion of electricity with life, health, and disease. Nor can we say, that either the matter or the manner of the book is marked by much philosophic acumen; we agree in the author's premises, and we are bound to believe his facts; but, undoubtedly, we fail, in many cases, to find that he has drawn any very striking conclusions. Thus, for instance, in the first two chapters, we find a very fair account of the different methods in which electricity is developed in animate and inanimate bodies; and, in the the third and fourth chapters, the author plunges at once *in medias res*, and treats of electricity as a remedial agent. In this part of the subject, Dr. Lawrance divides diseases into those, "1st, in which the free electricity circulating in the nerves should be increased; 2nd, those in which the free electricity circulating in the nerves should be decreased; and, 3rd, those in which electro-chemical decomposition should be produced." Now, admitting that diseases *may* be so classified, Dr. Lawrance gives no arguments to show *why* he so arranges them; and we do not precisely see that, because a current of electricity passed through the human body decomposes iodide of potassium, *therefore* the same current ought to dissipate a rheumatic effusion into the joints. The recent experiments of Dr. Bence Jones, however, quoted by Dr. Lawrance, upon the decomposition of calculi in the bladder by the agency of electricity, are more to the point; and if this method of removing calculi should eventually be found successful, an inestimable benefit will be conferred upon mankind.

Another defect in the book is, the absence of any precise details as to the method of employing the electric agency, a circumstance of immense importance in recommending its general adoption; for, as we before mentioned, one great obstacle to the extensive employment of electricity in disease is the want of some easy and expeditious mode of applying it; and what with the electrical machine, the galvanic battery, Pulvermacher's chain, the galvanic rings, &c., some of undoubted efficacy, others of very dubious value or of no value at all, the Profession really requires to be informed of the best form of administering electricity to the human subject.

The work of Dr. Lawrance must be considered as a series of suggestions rather than as a complete performance; but, as we believe that the subject to which it refers is one of intense interest, although only in its infancy, we recommend it to the notice of the Profession, hoping that, in progress of time, such improvements may be made by Dr. Lawrance and others in the application of electricity to the treatment of disease, as may rescue a very powerful agent of cure from the hands of quacks, and secure its lasting reception within the legitimate domain of medicine.

A Clinical Phrase-book, in English and German, Containing the Unsual Questions and Answers employed in Examining and Prescribing for Patients; Questions in Asking for and Buying Medicines, &c.; with an English-German and German-English Pronouncing Lexicon. By Montgomery Johns, M.D. Philadelphia: Lindsay and Blakiston. 1853.

This is an exceedingly useful little work, originally designed for our transatlantic brethren, and rendered necessary to them from the great amount of emigration from Germany to the United States, and the consequent obligation imposed upon them to learn the language of the new-comers. It is intended for the use of the Medical Profession, and contains a copious list of words and phrases which are likely to be required by the physician in attendance on German patients. There is a list of the materia medica in English and German; a succinct account of the accidence of the German language; and a list of the irregular verbs. There is also a Lexicon, in English and German, and in German and English, in which are to be found all the words likely to be wanted by the medical practitioner; and the book concludes with a few brief remarks upon German penmanship, a subject of great importance to all who speak and write the language. We can strongly recommend this book as likely to supply a want which must have been often felt by many members of our Profession.

The Medication of the Larynx and Trachea. By S. Scott Alison, M.D. Pp. 49. London: Churchill. 1853.

In consequence of the successful application of the nitrate of silver in solution to the interior surface of the larynx and trachea, Dr. Alison has been led to investigate the effects of other substances locally applied to the same parts. He has employed, with success, as soothing agents, olive-oil, glycerine, cod-liver oil, and common mucilage, but gives the preference to olive-oil; as sedatives, he has used morphia, atropine, and conia; but gives due cautions as to the employment of these active and dangerous medicines; and, as an astringent, he prefers the direct application of tannin to any other drug. The instrument recommended by Dr. Alison for introduction into the larynx is made of whalebone, curved at its extremity like a male catheter, and furnished at its extremity with a small sponge, of the size of a horse-bean for an adult subject, but smaller in proportion for a child. The suggestions contained in Dr. Alison's little book deserve attention.

Mesmerism.—Good News for the Rheumatic.—Archbishop Whately, at a recent meeting of the Dublia Mesmeric Association, over which he presided, stated that he had been cured, by a week's mesmerising, of an inveterate rheumatism, that had baffled the doctors. This beats hollow Pulvermacher and his electric chains, "wherewith we are darkly bound." By the way, the Archbishop should have mentioned, that the doctors under whose care he had been, were homœopaths.

GENERAL CORRESPONDENCE.

MR. SYME AND THE PERINÆAL SECTION.

[To the Editor of the Medical Times and Gazette.]

Sir,—A communication was read, April 26, before the Royal Medical and Chirurgical Society, from Mr. Syme, on a new mode of treating stricture of the urethra. Mr. Syme's reputation, together with his late squabbles, gave a considerable interest to the paper in question, and the impression was general that this communication, and the discussion which was likely to arise out of it, would not fail, in the presence of the celebrated Edinburgh surgeon, to cast some light upon the question, and to be worthy of the distinguished Society which was thus favoured. Let us inquire how these hopes were realised.

Mr. Syme said, "There are certain forms of stricture which resist the hitherto established means of treatment, and seem to require some other remedy. In one form the stricture is distinguished by an extreme degree of irritability, resisting all attempts to effect dilatation." For my part, I was not prepared that Mr. Syme should take his position on such shallow ground. I had hoped to have heard him place his subject on the broad basis of pathological anatomy, and thus show in succession the different forms of stricture. At present I am ignorant whether it was intended to refer to such strictures as have been described by Swediaur, Morgagni, etc., or whether the strictures described by Hunter were referred to, or the cicatrix of ulceration of Dupuytren —whether it was intended that the operation should be applicable to valvular or to annular stricture. Science would have been indebted to Mr. Syme had he treated his subject philosophically, and the meeting would have presented no small interest, had the combatants broken a lance, armed *cap à pié*.

All inventors are enthusiastic in recommending their own. Some time ago M. Mayor, the well-known surgeon of Lausanne, proposed sudden and violent dilatation for the cure of stricture, and his reputation caused some attention to be paid to his recommendations. In listening to M. Mayor, or on reading his works, it might be supposed that he had never met with disappointment, but had always reaped success. Other surgeons, notwithstanding, had, in following his advice, met with the most tragic results, and a controversy of the most angry character followed between Mayor and the Parisian surgeons. His method is now almost, if not entirely, abandoned, but it is still remembered. Again, others have substituted for the six sizes of Mayor, metallic catheters of the greatest variety of diameter, and have thus attempted to effect dilatation slowly and gradually. And of all the modes of dilatation, none are so innocent, and in all respects excellent, as that which is effected slowly by means of metallic instruments. I would not by this mean to infer, that the same fate is reserved for Mr. Syme's proposal. This the future will determine.

The three forms of stricture mentioned by Mr. Syme have no pathological import; nor is it possible to distinguish them, as the signs of their existence were withheld. Nor was Mr. Syme more explicit with regard to his means of recognising the existence or the form of the stricture. There were many doubtless who would gladly have heard if he recognised the means employed by Ducamp, or those of Charles Bell, or whether he used the gutta percha bougie of Leroy d'Etiolles. In this epoch of scepticism and investigation, people will see, and hear, and touch. Every innovator must appear at the bar of public opinion,—the scalpel, the microscope, the stethoscope re-agents, etc., *à la main*,—and show not only his theory, but the value of his treatment. In his communication no mention was made by Mr. Syme of the after-consequences of the operation, in a physiological point of view; neither was the healing process alluded to. We were neither informed of the nature of the cicatrix which is subsequently formed, nor of the shape which the urethra affords after the operation. For my own part, I am inclined to receive implicitly Mr. Syme's dictum; yet, I could well have wished that he had been more explicit, and given more plausible reasons for his mode of treatment. Dilatation is spoken of, and bougies; but what is Mr. Syme's dilatation, and what are his bougies? Are they gutta percha and caoutchouc? If so, I agree with him. When the stricture is recent—when the submucous tissue is not hardened; when there is merely a soft valvular stricture formed, their use is exceedingly problematical, and I have long abandoned them, except in the commencement of the treatment. The metallic bougie is for two reasons the best: first, because it does not soften by heat, as do the other bougies; secondly, because their action is that of an alterative, as well as that of a dilator.

Stricture belongs to the same class as, and resembles, pathologically, a cicatrix of the skin. A cicatrix is the product of inflammation, or of chronic ulceration, and is the result of inflammatory action, as has been proved by M. Jules Guérin and others. Now, when we turn to orthopœdic surgery, and witness the effect of mechanical extension, as applied to the cicatrices of burns, it were to be desired that Mr. Syme could become acquainted, if he is not already with the mode of treatment now adopted at the Royal Orthopædic Hospital. He could there see cases treated by the surgeons to this Institution, Messrs. Tamplin, Lonsdale, Brodhurst, and Adams, that would convince him of the truth of my assertion. And as the same elements form cicatrix of skin and deposit in the submucous tissue, the treatment of the one may be the treatment of the other. Mr. Syme asserts, that the grooved staff can always be passed through the stricture with time and patience. *Time and patience verba sunt.* Why did not the Professor develope the secret of his manipulations, that others might follow him in cases of tight stricture. All that is known of stricture, is in contradiction of that stated by Mr. Syme. Amusat, previously to Mr. Syme, stated that, in stricture, there was never complete obliteration of the canal. Chopart has shown, however, the truth in reference to this point—Vol. II., p. 32: his evidence agrees with that offered by Delmas, of the *post-mortem* examination of Juniot, who died at the Hôtel Dieu, Paris, of an extensive infiltration of urine.

Distinguished specialists, as Mercier, Leroy, D'Etiolles, &c., have laid down certain rules in difficult cases of stricture; perhaps the learned surgeon of Edinburgh can give us others. I trust Mr. Syme will excuse me, if I ask him why he leaves the catheter in the bladder two days only, and blames others who leave it five or six weeks? The instruments used by Mr. Syme are very simple; and I cannot but admire his skill, that he is able to use so small an instrument, and avoid false passages. Yet, I think, simple as is Mr. Syme's method, it may yet be rendered more simple by the subcutaneous incision. It is now some months since I first used this method of treatment. At another time I will refer to it again, at greater length; for the present, I will merely touch upon it.

A young Italian was under my care for a stricture in the membranous portion of the urethra. I explored the canal, and examined the form of the stricture after the method of Ducamp; I then passed a caoutchouc catheter, with its stylet, No. 1, and succeed in passing it through the stricture; but my patient had not the opportunity of remaining long enough in England to enable me to cure his stricture by this slow method, and, having heard of Mr. Syme's operation, was anxious it should be performed: I yielded in part to his wish. Having placed my patient in the position as for lithotomy, and, having passed a grooved sound through the stricture with a scalpel, I divided the skin, making a very small opening, and in the same manner the urethra. I then introduced into the opening of the urethra a small curved tenotome, and without further division of the integument, divided the stricture from before, backwards. Lastly, with the sound, I assured myself that the stricture was perfectly divided. This operation is readily imitated on the dead body. A curved needle and thread may be passed around the urethra, beneath the skin, the needle being brought out at the point of entrance. Thus, a loop will be formed, which, being tightened around a grooved staff, will perfectly represent a stricture. I term this operation subcutaneous, because it is in reality so. After the operation, the catheter was not left in the bladder, but passed when required to empty the bladder. After its use, warm water was injected. I preferred this mode of treatment for the following reasons:—When the catheter is left in the bladder, some drops of urine will dribble along it to irritate the wound. Those who have operated for laceration of the perinæum know that cicatrization is prevented, and ulceration produced by contact of the urine. Mr. Baker Brown places his patient on the knees and hands during the catheterization, to prevent the urine coming in contact with the wound. By the introduction of a catheter well adapted to the urethra, and by injection of water, I endeavour to prevent the contact of urine with the wound. The small external incision heals almost by the first intention. As to the interior wound, I would not hazard an opinion as to the time of its closure; after six weeks, however, my patient had neither pain nor difficulty in micturition; nor was there at this time sensible trace of the stricture on using the catheter. I therefore presume cicatrization to have been, then, complete. Future observation will prove which operation is the best, the subcutaneous incision or that of Mr. Syme. It will, perhaps, be objected, that, to pass a catheter daily, would cause irritation, and prevent cicatrization, or, perhaps, lacerate the urethral wound. I would reply, that the urine in passing through the urethra is a foreign agent, charged with its proper salts, which produce irritation, far different to that of a well adapted metal catheter.

Many just observations were made by Mr. Wade, who, among others, cited Mr. Fergusson. So we had Hippocrates affirming, but Galen denying. Which of the twain shall we believe? *In medio virtus*, I am entirely of Mr. Solly's opinion, that "each plan has its advantages in particular cases." But this is the point at which I desire to arrive, to know which are the cases in which Mr. Syme believes his operation to be applicable, and the best. Mr. Coulson, in taking a compendious review of the question, specified three classes of cases in which the operation of external incision might be resorted to. And, on the other hand, Mr. Gay asked pointedly that some indications should be given whereby Mr. Syme would abstain from operating. Now, it was to be hoped that Mr. Syme, in answering categorically the questions put to him, would have made some amends for omissions; but again those present were doomed to be disappointed.

In making these observations, I trust Mr. Syme will pardon me, and that he will feel assured that it is done in the cause of science, and in the hope of seeing truth predominant. The profession will owe another debt of gratitude to Mr. Syme, if he will, at his own time, armed with his great experience, treat of the subject in its pathological relations.

I am not inclined to dispute the originality of the operation. Even though it had been performed before it was practised by Mr. Syme, he, at least, has had the merit of again showing its practicability, and of rendering it common. His example has already been followed by foreign surgeons, as Sedillot, of Strasbourg. It is customary to dispute, with those who propose what is new, its novelty; as was the case with Stromeyer, when he proposed subcutaneous tenotomy.

I should much like to see a commission named, to examine this question in all its bearings; to report fully on the operation of Mr. Syme, and finally to settle the question. Thus would truth at length shine conspicuous.

In dubio prudenter, in verito fortiter.

HENRY DICK, M.D. Munich.

THE NEW VACCINATION ACT.

[To the Editor of the Medical Times and Gazette.]

SIR,—In the recent discussions concerning the Vaccination Extension Bill, Lord Ellenborough, the introducer of the original Act, observes, that "it has not produced all the good he had expected from it;" but does not proceed to account for this failure by pointing out any manifest defects. Lord Lyttelton states, that "with regard to the general subject of the remuneration given to the medical officers of unions, he could not wonder that the Poor-law Board, and the Government, felt very great difficulty in interfering on this subject, when they saw medical men, of the highest character, entering into these contracts, year after year, and duly carrying them out." These statements, attributing failure to the apathy of the public, and not to imperfections in the administrative department, indicate the remedy of a more compulsory Act. But, is Lord Lyttelton's account strictly correct? His Lordship is Chairman of the Board of Guardians of the Bromsgrove Union; his brother being also an active member. Some three or more years ago, I was informed, on very good authority, that the vaccination-fee, per case, in that union, was 1s. 6d.; that it had been originally 2s. 6d. (was reduced to 1s., and reluctantly raised to 1s. 6d.?),—that at the former price it was carried out (that the second was given up because it was altogether neglected?),—that at 1s. 6d. it was still incompletely performed; and that a remonstrance was met with an open avowal of an inability, with such inadequate remuneration, to permit it to interfere with other professional duties. The fact of the Board of Guardians of the Warwick Union having recently raised the fee to 3s. 6d., also testifies against His Lordship's statement. The original fee before the Poor-laws was 5s. Again, how is it that medical men, of the highest character, enter into these contracts? Is it not well-known that, from the very commencement of the present Poor-laws, the Guardians have offered the districts at low salaries to the medical men, holding forth as an alternative the bringing and introducing competitors? The Vaccination contract is separate, but generally accompanies; sometimes is used as an additional inducement to the medical man to take a district. Has it not recently happened that the Poor-law Commissioners have replied, at least to one Board of Guardians, that the salaries of the medical officers are already low enough, and peremptorily ordered them to be reinstated without reduction? That the statement is incorrect, is further evidenced by His Lordship's own opinions,—else why the need of such stringent, not to say oppressive, clauses relating to the Medical officers?

We will now look to the work done and expenses incurred by the vaccinator in carrying out his part of the contract. Lancets, points, stations, small gifts to children from whose arms the supply is taken, wear and tear of carriage and horse, and in country districts, turnpikes, etc., have to be paid for. On the part of the vaccinator only, there is an absolute necessity for punctuality, and often at great inconvenience, arriving at the appointed hour at the station, an inconvenience by no means lessened by the want of punctuality of the friends of the children, and the fixing the time so long previously, irrespective of other, then unknown, engagements. At least two inspections of each case are required; the one to perform the operation, the other to ascertain the result, and for each case of failure, (by no means the fault of the vaccinator,) another inspection is required. Moreover, to insure an inspection, the vaccinator is often obliged to follow individual cases to their own homes, and not unfrequently to a distance of two or three miles from the station, at which the patient's attendance is entirely voluntary. It is true that several cases are seen at the same place, but each one takes a certain amount of time and trouble, and, as a set-off against this, must be placed the visits, when two or three only are present, and sometimes even none at all. The work is not yet over; for each successful case a certificate is given; it is entered in a book when vaccinated, and again when inspected with full particulars, and a most complicated bill has to be made out. I enclose specimens of each form. The main objections as regards the medical men are, the unnecessary number and frequency of certificates, the injustice of Clause 7, and of the proposed alteration noticed in your Number for April 23.

Clause 7 is calculated to for ever immerse the Medical officer in law proceedings, at the option of any one who has a desire to worry or take revenge on him; and that because a child has had an illness which no human foresight could avert.

The vaccination from the arm of a healthy child, in presence of the parents, entails needless trouble, precludes the use of points, and assumes that the Board of Guardians and Poor-law Commissioners are bodies possessing great medical knowledge, and lays the surgeon open to insults and injuries on the spur of the moment. It also assumes, what is still doubtful, that there is no need of a recurrence to the animal for a supply of lymph; and so long as even a few eminent medical men entertain a different opinion on this point, it is, to say the least, unwise and impolitic.

Mr. Ceely has fully explained the drawbacks on the part of the public, and any one well acquainted with the feelings of the labouring classes will know that the universal pauperising tendency of the measure is an exceedingly great obstacle. Is it not more consistent with the principles of a free and tolerant nation, not to leave a stone unturned before resorting to force? is not the offering a bonus on vaccination a more preferable mode of forcing its efficiency? The proposed Bill leaves vaccination still under the control of the Boards of Guardians, an arrangement little calculated to aid the medical men in the efficient performance of their duties.

Before leaving the subject, I must allude to Lord Ellenborough's objection to the clause requiring notice to be given to the party registering a birth, on the ground, that a penalty would be inflicted on a person in nowise connected with the child.(a) Strange that a legislator quoting the law in his public position, should be so utterly ignorant of the important fact, that a birth can be registered by two persons only, the father and mother of the child.

I am, &c. D. E.

P.S. At the present time I am unable to vaccinate two children in a house where varicella has appeared, on account of a want of lymph,—another obstacle to be removed.

[We do not feel it necessary to print the blank forms sent by our Correspondent. Suffice it to say, they consist of a Certificate of A B having been vaccinated, to be given to the parents or friends; a Register of Cases Vaccinated during the Quarter, in which are 7 columns to be filled in; and also, a Quarterly Return of Fees due for successful Vaccination, stating the parish, the numbers vaccinated in each of 13 weeks, the total fees due, and the average per case.—ED.]

SLOUGHING OF THE SCROTUM.

[To the Editor of the Medical Times and Gazette.]

SIR,—The case of Mr. Dicken, which appeared in your publication of the 7th of May, reminds me of an analogous one that came under my observation about the middle of July last. The history

(a) *Association Journal*, April 22.

of the early portion of the case, as far as I have been able to ascertain it, is briefly as follows:—

About four months previously to the period just named, G. S., aged 38, had an attack of retention of urine from stricture of the urethra. Had frequently before been attacked in a similar manner, but on this occasion, rupture of the urethra, followed by the usual disastrous consequences, occurred. Having been reduced to poverty by his illness, he was turned over to me in July in my capacity of district medical officer of this Union. He had evidently suffered severely from constitutional irritation, conjointly with poverty, as he was in a state of great emaciation. The communication betwixt the urethra and perinæum still remained, and a catheter could be passed with the utmost facility into the bladder. With the view chiefly of securing for him an adequate supply of the necessaries of life, he was removed to the House of Recovery. Shortly after his removal there, inflammation of the scrotum occurred. In three days, nearly the whole of the tegumental coverings of the testicles sloughed off, leaving them exposed to view. Great constitutional disturbance was excited; but under the use of appropriate remedies it gradually subsided, the wound assumed a healthy appearance, and in about a month the scrotum was restored.

I have not thought it necessary to send you any details of the treatment, as these will necessarily be familiar to the minds of your readers. My object is simply to put on record another instance of the extraordinary powers of reparation which the tissues of the scrotum possess. I am, &c.

Preston. WM. CORLESS.

REPORTS OF SOCIETIES.

EPIDEMIOLOGICAL SOCIETY.

DR. BABINGTON, F.R.S., President, in the Chair.

A paper was read by Dr. Snow

ON THE COMPARATIVE MORTALITY OF LARGE TOWNS AND RURAL DISTRICTS, AND THE CAUSES BY WHICH IT IS INFLUENCED.

The following is an abstract:—"The shorter average duration of life in large towns, as compared with rural districts, depends on the greater mortality in early childhood, and the smaller number of adults who attain to old age. In Liverpool and Manchester half the children born die before they are five years of age, the numbers being 52 and 51 per cent. In Birmingham 48 per cent. of the deaths occur before this age, and in London rather more than 40 per cent., but in Wiltshire and Surrey only 31 per cent. The greatest number of deaths in any decennial period, after the age of five, takes place in Surrey,—from 65 to 75 in males, and from 75 to 85 in females. In Manchester, Liverpool, and Sheffield, the highest mortality after early childhood is from 35 to 45 in males, and from 25 to 35 in females, or 10 years earlier than in the same sex in London. In Leeds, Blackburn, Preston, Stockport, Macclesfield, and some other towns in which textile fabrics are manufactured, the greatest mortality in both sexes, after infancy is passed, occurs from 15 to 25; although in two registration districts, not more than 20 miles from Leeds, the highest mortality, in both sexes, is from 75 to 85, or 60 years later than in these towns. In London, however, the mortality, at the period immediately succeeding to puberty, is lower even than in the rural districts, more especially in the female sex. On comparing some of the worst districts of London, such as St. Giles's and Clerkenwell, with the more distant and rural parts of Surrey, the advantage of the town over the country, in the small number of deaths at this period of life, is more striking. In St. Giles's, the annual mortality in the seven years, 1838 to 1844, between the ages of 15 and 25, was 59 males and 68 females to 10,000 of each sex living at that period of life; while, in the Guildford district, the numbers were 77 males and 90 females. On examining the Tenth Annual Report of the Registrar-General, all the chief diseases of infancy are found to be more fatal in London than in the adjoining rural districts. Convulsions, hydrocephalus, and diarrhœa, probably owe their greater fatality to improper food and general treatment, while the constant presence of various infectious diseases in London increases the mortality, by affecting children at an earlier average age than in the country, where they pay only occasional visits, and thus enable many of the children to escape an attack till a later period, when certain of them, as hooping-cough and measles are hardly ever fatal. A proof of the frequently later attacks of these diseases in the country is the fact, that the deaths from scarlet fever in the South Midland district, from the age of 10 to 20, are much more numerous than in London, although, under 5 years, when the chief mortality occurs, it is greatest in London. The diseases which cause the mortality of the rural districts to exceed that of London, from 15 to 25 years of age, are phthisis and typhus, which are more fatal at this period of life in the country than in London. Typhus, indeed, is more fatal at all ages and in both sexes, and phthisis is much more fatal in the female sex, in whom it occurs also at an earlier period of life than in London. The probable cause of the great fatality of consumption among young females in the rural districts, is deficient nourishment, consequent on the difficulty of obtaining employment. Typhoid fever is probably less fatal in London than in the country, on account of the numbers who gain an immunity from it in after life by passing through it in childhood, when it is less fatal, and generally goes by the name of infantile remittent. It is chiefly to phthisis that the great mortality of both sexes between the ages of 15 and 25 in certain manufacturing towns is due. The above circumstances show that the high mortality which prevails in most large towns is occasioned more by the habits and occupations of the people, and some other causes, than by the mere influence of living in towns."

Dr. James Bird, Mr. Pilcher, Mr. Lord, Dr. Chowne, Mr. Hunt, Mr. Walsh, Dr. Camps, Dr. Burford Carlill, and the author, took part in the discussion.

MANCHESTER MEDICO-ETHICAL ASSOCIATION AND THE VACCINATION EXTENSION BILL.

MEMORIAL.

TO THE HONOURABLE THE COMMONS OF THE UNITED KINGDOM OF GREAT BRITAIN AND IRELAND, IN PARLIAMENT ASSEMBLED.

The Petition of the undersigned members of the Medical Profession, on behalf of a Society calling itself the Manchester Medico-Ethical Association,

Humbly showeth,

That the Vaccination Extension Bill now before your Honourable House is calculated to supply a desideratum for the further protection of the public, and that the principle of compulsory vaccination meets with their entire approbation.

That, nevertheless, some of the provisions of the said Bill are not only defective in themselves, but also bear with considerable hardship on the members of the Medical Profession.

That the appointment of stations, to be not more than one mile from the furthest limit of the districts, would demand from the medical officer, especially in thinly populated districts, a seriously increased consumption of time and labour.

That the desirable mode of vaccinating directly from the arm is already adopted whenever practicable, but to do so in all cases is entirely impossible; that to report every exceptional instance to overseers or guardians of the poor would answer no useful purpose; and that the exercise of the power to vacate the contract under such circumstances would be arbitrary and inexpedient.

That while the Bill enforces vaccination within a given time, and renders the parents or guardians of the child responsible for its omission, it does not enforce the obligation to return for inspection, and for supplying the medical officer with lymph; and it does not regard the certificate of successful vaccination as the only defence against the penalty.

That the onus of transmitting a duplicate of the said certificate to the Registrar of Births and Deaths would, to say the least, be unreasonable, seeing that the medical officer is shut out from all remuneration under the provisions of this Bill.

That to declare expressly, that no medical officer shall be entitled to any fee or remuneration for the additional duties and multiplied certificates imposed upon him by this Bill, is virtually to prohibit any increase of a payment already inadequate; and that a compulsory law will fail to accomplish the end proposed, the success of which is made to depend on the efficiency of ill-paid medical officers.

Your petitioners, therefore, humbly pray your Honourable House to make such alterations in, and amendments of, the Vaccination Extension Bill, as, in your wisdom, you may deem desirable.

And your petitioners will ever pray, etc.

J. L. BARDSLEY, President.
J. AIKENHEAD, M.D., } Hon. Secs.
W. C. WILLIAMSON, }

MEDICAL NEWS.

Oxford University.—On Wednesday, the Degree of Licentiate in Medicine was conferred on Mr. William Ogle, of Catherine Hall.

Dr. Paris, Dr. Todd, and Dr. Hawkins, had an interview with Viscount Palmerston, on Monday, at the Home Office.

Royal College of Surgeons.—The following gentlemen having undergone the necessary examinations for the diploma, were admitted Members of the College at the meeting of the Court of Examiners, on the 20th inst. :—

Evans, George, Harewood-square.
Evershed, Charles Lambert, Billinghurst, Sussex.
Hamilton, William, Tullick, County Tyrone.
Henderson, Andrew, Kirkaldy, Fifeshire.
Hopkins, William, Leamington, Warwickshire.
Johnston, Augustus, Dublin.
Moor, William Henry, Durham.
Pitthall, John, Hon East India Company's Service, Bengal.
Rains, John, Bonsall, Derbyshire.
Sinclair, Edward Malcolm, Manchester.
Wilson, Robert James, Westminster.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, May 19, 1853 :—

Atkinson, Edward, Little Woodhouse, Leeds.
Eve, Richard Wafford.
Hancox, Henry, Bilston, Staffordshire.
Jenkins, Robert Walker, Charing, Kent.
Richardson, Charles Schofield.
Tibbits, John, Warwick.
Wright, Peter, Wigan.

The Gresham Lectures.—These lectures, founded by Sir Thomas Gresham, will be read to the public, *gratis*, during this term, in the Theatre of Gresham College, Basinghall-street. Those on Physic will be delivered, as usual, by Dr. Southey, F.R.S., on Thursday, Friday, and Saturday, the 26th, 27th, and 28th inst., —in Latin at twelve o'clock, and in English at one o'clock.

APPOINTMENTS.

Westminster Hospital.—Dr. Radcliffe, Lecturer on Botany and Vegetable Physiology at the school attached to this hospital, was unanimously elected Assistant-Physician on the 20th inst.

St. Ann's Society Schools.—Dr. Griffith has been appointed Medical Examiner. The appointment is honorary.

Military.—Hospital Staff: Charles Augustus Shiell, gent., to be Assistant-Surgeon to the Forces, vice Fyffe, appointed to the 30th Foot.

Militia.—West Kent: Robert Vaile Skinner, gent., to be Assistant-Surgeon.—3rd, or Royal Westminster: Thomas William Nunn, gent., to be Assistant-Surgeon.—4th, or Royal South Middlesex : James George, gent., to be Surgeon. Shropshire : Samuel Wood, gent., to be Assistant-Surgeon. Royal South Lincoln : Charles Ferneley, gent., to be Assistant-Surgeon.

Naval. — Surgeon James Peters (1851) to the Vulcan steam frigate, at Portsmouth.

Bombay Army.—Senior Assistant-surgeon G. M. S. Seaward to be surgeon, vice Watkins, deceased.—Date of rank, 1st April, 1853.

Bengal Army.—Assistant-surgeon F. J. Mouat, M.D. and F.R.C.S., Professor of Medicine in the Medical College, to be *ex-officio* first Physician of the College Hospital. Assistant-surgeon E. Goodeve, M.D., Professor of Materia Medica in the Medical College, to be *ex-officio* second Physician of the College Hospital and Professor of Clinical Medicine. Assistant-surgeon R. O'Shaughnessy, F.R.C.S., Professor of Surgery in the Medical College, to be *ex-officio* first Surgeon of the College Hospital. Surgeon Allan Webb, Professor of Descriptive and Surgical Anatomy in the Medical College, to be *ex-officio* second Surgeon of the College Hospital and Professor of Clinical Surgery. Surgeon D. Stewart, M.D., Professor of Midwifery in the Medical College, to be *ex-officio* Obstetric Physician of the College Hospital. Assistant-surgeon E. D. Silver, M.D., late Civil Assistant-surgeon of Sylhet, having been permitted by the Government of Bengal to resign that appointment, his services are replaced at the disposal of His Excellency the Commander-in-Chief, from the 18th March, 1853. Surgeon William Pitt, who was promoted with rank from the 13th February, 1853, having become supernumerary by the restoration to the service of Surgeon D. Butter, announced in Government General Order, No. 140, of the 16th February, 1853, is brought on the strength of the establishment from the 1st March, 1853, vice senior Surgeon William Jackson, F.R.C.S., permitted to retire from the service. Assistant-surgeon Robert Bancroft Kinsey to be Surgeon, from the 15th March, 1853, vice Senior Surgeon Robert Brown, deceased.

India.—The undermentioned officers have passed the examination in Hindustanee prescribed for medical charge :—Assistant-Surgeons J. A. Cox, M.D., and M. D. Campbell, M.D., A.M., and B.A.

BEQUESTS.

Newcastle Infirmary and Dispensary.—The executors of the late Russell Blackbird, Esq., have paid over two legacies of 500*l.* each to those Institutions.

Newcastle Eye Infirmary.—The treasurer has received 300*l.* (less legacy duty!) from the executors of the late Russell Blackbird, Esq.

DEATHS.

Fox.—May 23, after a short illness, Samuel Fox, Esq., surgeon, of Shoreditch, in his 78th year, M.R.C.S. Eng. 1802 ; formerly Surgeon Royal Navy.

Grant.—March 27, Assistant-surgeon J. Grant, of spasmodic cholera, near Comillah, Bengal.

Mines.—May 14, at Diss, Norfolk, aged 77, William Mines, Esq.

Richardson.—May 20, at Ross House, Clarence-square, Cheltenham, Robert Richardson, Esq., surgeon, late of Harrogate, Yorkshire, aged 81.

Sidley.—Suddenly, May 15, at Southampton, Mr. Sidley, a surgeon in the Royal navy, from the effects, it is believed, of prussic acid. A coroner's inquest has been held on the body. Mr. Sidley was in the habit of taking opium and prussic acid medicinally, and it is conjectured that in an agony of pain he took too large a dose of the latter poison. Unfortunately, the glass from which it is believed he took the dose, was accidentally taken from the table where it was laid by Mr. Sidley, and washed out, and thus the strongest proof of the fact that the unfortunate gentleman took prussic acid, and also a means of ascertaining what quantity he did take, are wanting. It is believed that Mr. Sidley took 3½ drachms of Scheele's prussic acid, because that quantity is missing from the bottle in his room, and which he had only obtained possession of just before his death ; but there is great difficulty in conjecturing how he struggled from where the bottle and glass were left, to the bed where he was found dying.

Stocker.—May 12, At St. Austell, Cornwall, Mr. Henry Medland Stocker, surgeon, aged 21.

Watkins.—April 2, at Breach Candy, in the Bombay Presidency, Dr. Watkins, Civil Surgeon, and formerly Garrison Surgeon at the Presidency. Dr. Watkins was in extensive private practice, and intimately known to a very large number of the members of the community. He was a man of considerable ability and great good sense ; of large and varied acquirements, sterling uprightness, and much warmth of heart. The feeling of regard and esteem entertained for him by all who knew him deepened into love and affection among those whom he visited, and his removal in the prime of life, and in the midst of his usefulness, occasions a feeling of deep and general sorrow. He had been, for some weeks, suffering from dysentery, which, a fortnight since, took so alarming a turn as to prevent the possibility of his being removed from the Presidency ; and for the past ten days he had been dangerously ill. He has left four children being educated in England. Dr. Watkins served with the 3rd Troop Horse Artillery during the whole campaign in Scinde and Affghanistan, under Sir J. Keane, and was present at the storm and capture of Ghuznee ;—he received a Ghuznee medal.

Westall.—On board the Zemindar, aged 31, while returning from Australia to rejoin his regiment at Madras, William Westall, M.D., Assistant-surgeon of the 94th Regiment, son of Wm. Westall, Esq., of Bath.

Medical Reform.—On Monday, Mr. Hutt presented a Petition to the House of Commons, signed by Charles Sea, Medical Practitioner of Hull, complaining of the unsatisfactory and conflicting state of the law relating to the practice of medicine.

Western Dispensary for Diseases of the Skin, 21a, Charlotte-Street, Fitzroy-Square.—A meeting of the subscribers and friends of this charity was held on Tuesday, May 24, at the rooms of the Dispensary. The Rev. Canon Dale, the Pre-

sident of the Institution, in the chair. The Report stated, "that during the eighteen months' existence of the Dispensary, a large amount of good had been effected. Out of 442 patients admitted, 192 had already been discharged cured, 44 benefited, and "the remainder, with very few exceptions, advancing as rapidly towards recovery as is possible under the chronic character and protracted duration of the disease."

Finsbury Dispensary.—The Anniversary Dinner of this Institution was held on Wednesday last, at the Albion Tavern, the Lord Mayor presiding.

The Pharmaceutical Society held its *conversazione*, on Tuesday week, at the Chambers, Bloomsbury-square. The rooms were crowded.

The Torquay Infirmary is now opened for the reception of in-door patients.

Royal Sea-bathing Infirmary, Margate.—The wards of this excellent Institution were opened for the reception of patients on the 18th inst. From the Report which has been issued, we regret to find that the funds are in a very depressed state, and that, unless the friends of the suffering poor rally round the Margate Infirmary, its usefulness must be materially curtailed. Much credit is due to the Directors, inasmuch as they have, notwithstanding the low condition of the finances of the hospital, opened it upon their own responsibility. We sincerely trust, however, that the benevolent will come forward and give support to this charity, one of the most deserving and most useful that we possess. It is, of course, highly desirable that the hospital should be a free one; but hitherto, from want of funds, this has been impossible. The patients, therefore, are obliged to contribute towards the expenses of their board, which they do in payments varying from 4s. to 5s. and 6s. 6d. per week. Without further aid, these moderate payments will have to be increased. About 1,400*l.*, in addition to 600*l.* now in hand, is required, in order that the hospital may be kept open for the next six months.

A Hospital for Women and Children, in Leeds, is expected to be ready for the reception of patients about the first week in June.

Causes of Insanity.—Mr. Eccleston, the late Medical Superintendent of Rainhill Asylum, in his Annual Report, says:—"The two great causes of insanity, as observed in the admissions to this asylum, are drunkenness and perverted ideas on religion, the latter cause ranking only second in potency and frequency to drunkenness." With regard to perverted ideas on religion as a cause of mental disease, his report says—"The observations of Dr. Halloran, made in the Cork Lunatic Asylum, entirely coincide with my own experience. This physician remarked, that among his patients, although Catholics were in proportion to Protestants as ten to one, no instance occurred of mental derangement among the former from exalted religious opinions, while several instances of insanity thus induced took place among the Protestants. I desire to guard myself from being understood to express any opinion, either favourable or adverse, to the theological doctrines of the Calvinists; I venture to express no such opinion, but limit myself strictly to the medical question of the influence these peculiar doctrines exert in the production of insanity. According to my experience, all cases deserving the name of religious insanity are, with rare exceptions, the result of the Calvinistic theology. This opinion is fully supported by many authors of deservedly high reputation, and has recently received a strong confirmation from the statistical tables of Dr. Hubertz, on the condition of the insane in the kingdom of Denmark, published in the 'Annales Medico-Psychologiques.' Dr. Hubertz shows that in every 1000 of the general population, which is Lutheran, only 2·10 are insane, while in every 1000 professing the Calvinistic creed no fewer than 9·16 are insane. The wards of this institution have contained examples, far too numerous, of mind shipwrecked on the rocks of religious fatalism. The treatment of such cases demands the soundest judgment, and the most delicate discrimination. The religious teaching of the insane, conducted under the direction of persons thoroughly conversant with mental disease, is one of the greatest improvements introduced into the modern treatment of lunacy. As an example of this, I can with much pleasure and confidence refer to the ministrations of the amiable and zealous chaplain of this Institution. The amount of the Irish element in the population of Liverpool will account for the large number of Roman Catholics in this asylum. The numbers of this church form nearly one-fourth of the whole number of our inmates, and are nearly one-half as numerous as the inmates belonging to the Established Church."

Small-Pox has been very prevalent at Crediton, Devon.

The Cholera.—A letter from St. Petersburgh, of the 21st ult., announced, that the cholera, which was then raging with great violence at Moscow, had re-appeared, and several persons had died. Another letter, of more recent date, states that the disease has not made any further progress, and has been confined to isolated cases.

Hydrophobia.—In January last, a girl named Taylor, 12 years of age, was bitten in the hand by a mad dog. A surgeon not only cauterised the wound, but applied the cupping-glasses. Subsequently she took a quantity of medicine, supposed to be a certain preventive or cure. She remained in apparently good health until Sunday week. On the next day she was attacked by spasms and great thirst. She was perfectly sensible when free from the spasmodic attacks, but when they returned the paroxysms were distressing, and she ultimately died from their effects. The wound in the hand was small, and had healed.

Poisoning by Accident.—At the Glasgow Circuit Court of Justiciary, Edward Ferdinand Wheatley, student of medicine, was accused of culpable homicide, in so far as, though not authorised to practise or prescribe as a Physician, he prescribed for William Brown, jun., a dose containing tincture of belladonna and tincture of aconite, by which Brown became immediately ill, and died in a few hours from the effects thereof. The prisoner pleaded guilty to the charge; and the case being considered by the court to be simply one of ignorance, the parties having been on very friendly terms, he was sentenced to only fourteen day's imprisonment.

Administering Chloroform to Animals.—At Hitchin, on May 18, Mr. James, veterinary surgeon, administered chloroform to two hunters, previous to the operation of firing. The horses were entirely insensible to pain.

Noblemen's Valets and Assistant-Surgeons in the Navy.—When Lord Ellesmere was embarking on board the Leander, to proceed to New York, last week, His Lordship's valet discovered that no accommodation better than a hammock had been provided for him. "Jeames" made such a disturbance that the commander-in-chief was told of the matter, and the vessel was detained until a cabin was built for his valetship. Had an assistant-surgeon (says the *Civil Service Gazette*) made such a complaint, he would have been considered insane.

Board of Health.—The vote taken this year, in the Civil Service Estimates, for the Board of Health, is 11,996*l.*, being an increase of 1,251*l.* over 1852-53, and of 2,027*l.* over 1851-52. The vote taken for the funeral of the late Duke of Wellington was 80,000*l.*!

A Slight Shock of Earthquake was experienced in different parts of Washington, U.S., on the 3rd inst.

Rain in Ireland.—The quantity of rain which fell in Ireland during 1852 exceeded that of 1851 by more than 13 inches.

Adulteration.—A snuff manufacturer has been fined, by the Commissioners of Excise, for mixing chromate of lead with snuff, "to add brilliancy to the mixture."

Mortality Notabilia.—In the week that ended last Saturday, the deaths registered in London numbered 1098, being nearly the same amount as in the previous week. In the ten corresponding weeks of the years 1843-52, the average number was 900, which, if raised in proportion to increase of population during that period, and up to the present time, will give a mortality for last week of 990. Hence it appears that the actual number of deaths last week exceeds the estimated amount by 108. Fatal cases, arising from diseases of the respiratory organs, continue to decline, but they still exhibit an excess above those of corresponding weeks; for last week they were 174, while the corrected average is only 131. Phthisis destroyed 152 lives, hooping-cough 65. The weekly temperature rose ten degrees, and an increase in diarrhœa is the immediate result; this complaint was fatal in 18 and 28 cases in the last two weeks. Typhus in the same times declined from 71 to 58.

Typhus.—At 141, High Holborn, on May 13th, a spinster, teacher at the Field-lane Ragged-school, aged 31 years, died of "typhus (8 days)." Mr. Yardley, the Registrar, was informed, that "the deceased came home ill from the Ragged-school, where it is supposed she had caught the infection, as two or three of the children attending the school had died from typhus, and two of the missionaries visiting the refuge, which is under the school, had also died from it. There was also registered the death of a man, on the 11th of April, who died from typhus abdominalis in the Hahnemann Hospital, and who had been removed from the refuge."

Diarrhœa.—At 7, Sun-square, Bishopsgate, on May 20, the daughter of a deceased mariner, aged 16 months, died of diarrhœa. Mr. Spencer, the Registrar, adds:—"The mother and child were in the workhouse, Bishopsgate, on account of ill-health, but the former discharged herself and child for the purpose of getting fur-

ther advice from St. Bartholomew's Hospital, where she was reproved for bringing the child away in so dangerous a state. I am sorry to say, that such conduct is too often exhibited by the inmates of the workhouse towards the medical officer, whose kindness and skill are deserving of greater confidence."

Meteorology.—At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·760 in. The reading of the barometer decreased from 29·73 in. at the beginning of the week to 29·55 in. by 9h. p.m. on the 16th; increased to 29·85 in. by 9h. a.m. on the 19th; remained at this reading till 9h. p.m. on the 19th; increased to 29·94 in. by 9h. p.m. on the 20th; and decreased to 29·91 in. by the end of the week. The mean temperature of the week was 55·2°, which is 2° above the average temperature of the same week in thirty-eight years. The mean daily temperature rose from 50·4° on Sunday, when it was below the average, to 59·5° on Thursday, which is 6·1° above it; it again declined on the last two days to 53°. The highest temperature, which was 72°, occurred on Wednesday and Thursday; the lowest occurred on Saturday, and was 38·5°, showing a range of 33° in the week. The wind blew for the most part from the north-east. The greatest difference between the dew-point temperature and air temperature was 17·3° on Saturday; the least occurred on Monday, and was 1·8°; the mean of the week was 9·7°.

Miscellaneous.—At 21, Rosemary-lane, Aldgate, on 17th May, the son of a journeyman plasterer, aged one year and nine months, died of "fever—hydrophobia." In the Strand Union Workhouse, on 20th May, a carpenter, aged 65 years, died of "destitution and debility." In King's College Hospital, on the 13th May, a brass-dresser, aged 41 years, from 11, Bennett's-court, Drury-lane, died of "acute œdema of fauces, glottis (9 hours), tracheotomy, bronchitis, pneumonia; died 47 hours after operation." On 18th and 19th May respectively, at 13, Barclay-street, Somers Town, two daughters of a carman, both aged nine months, died of pneumonia, one after 7 days', the other after 14 days' illness. At 28, Surrey-square, Walworth, two sisters, aged 9 and 2 years, died on 13th and 17th May, of scarlatina, one after 14, the other 18, days' illness.

MORTALITY IN PUBLIC INSTITUTIONS for the week ending May 21:—

	Males.	Females.	Total.
Workhouses	72	43	115
Military and Naval Asylums	9	..	9
General Hospitals	50	21	71
Hospitals for Special Diseases	3	3	6
Lying-in Hospitals	..	..	..
Lunatic Asylums	3	3	6
Military and Naval Hospitals	9	1	10
Hospitals and Asylums for Foreigners	..	..	..
Prisons	..	..	..
	146	71	217

DEATHS *in the Metropolis for the week ending Saturday, May* 21, 1853.

CAUSES OF DEATH.	MAY 21. 0	15	60	All Ages.	Sum of Ten Weeks.
ALL CAUSES	504	383	195	1098	9001
SPECIFIED CAUSES	502	380	195	1077	8961
1. Zymotic (or Epidemic, Endemic, and Contagious) Diseases	177	50	12	239	1968
SPORADIC DISEASES:					
2. Dropsy, Cancer, and other Diseases of uncertain or variable seat	3	32	15	50	455
3. Tubercular Diseases	91	124	11	226	1825
4. Diseases of the Brain, Spinal Marrow, Nerves, and Senses	60	33	28	121	1162
5. Diseases of the Heart and Blood-vessels	2	21	11	34	311
6. Diseases of the Lungs and of the other Organs of Respiration	74	52	48	174	1187
7. Diseases of the Stomach, Liver, and other Organs of Digestion	28	26	17	71	577
8. Diseases of the Kidneys, etc.	...	7	2	9	86
9. Childbirth, Diseases of the Uterus	...	1	...	1	90
10. Rheumatism, Diseases of the Bones, Joints, etc.	...	7	6	13	65
11. Diseases of the Skin, Cellular Tissue, etc.	...	1	...	1	19
12. Malformations	3	...	...	3	14
13. Premature Birth and Debility	25	...	...	25	229
14. Atrophy	20	1	5	26	178
15. Age	...	...	32	32	445
16. Sudden	7	2	2	11	89
17. Violence, Privation, Cold, and Intemperance	12	23	6	41	261
CAUSES NOT SPECIFIED	2	3	...	21	40

BOOKS RECEIVED.

Turnbull on Consumption.

Alderson on Rheumatism.

Memoranda made in Ireland in the Autumn of 1852. By John Forbes, M.D., F.R.S., etc. Two Vols. London: Smith and Elder. 1853.

Tracts for the Improvement of our Popular Literature. London: Churchill.

TO CORRESPONDENTS.

Mr. H. Bevan's communication did not arrive in time for last week's Journal.

A Young Practitioner, in filling up his Income-tax Return, must attend strictly to those directions which he will find in it. We think, under the circumstances mentioned, that he may deduct one-third of the rental at least, together with the greater part of the expenses for repairs, painting, etc.

Student.—The Swiney Professorship of Geology is at present held by Dr. Grant, Professor of Comparative Anatomy in University College.

A Member of the Medical Society of London will see that his suggestions have been attended to.

The letters of *M.R.C.S.E. and L.S.A.* cause no alteration in our views as expressed in the last number of this Journal. His notes are consequently left for him at our Office.

James O. Smith, Esq., Bury, must decide for himself as to the merits of the London over the Provincial medical schools. We would willingly answer the questions he proposes, did we not fear that by doing so we might be thought partial. Mr. Smith must consequently seek for information from his personal friends, or do as many do, observe for himself before entering to any particular school.

A Constant Subscriber.—We believe, that the degree of M.D. conferred at Marischal College, Aberdeen, is a *bonâ fide* legal degree, and recognised as such by the authorities.

Student, Kings College.—Apply to the clerk of the University, who will forward you all the particulars.

Mr. Thomas Bourne's paper shall receive our consideration. For the future, he must pay the postage of his communications.

A Third Year's Student, Charing-cross.—We were previously acquainted with most of the particulars detailed by our Correspondent, which, however, we do not think it necessary to notice at present. We cannot say where the blame rests.

A Surgeon-Accoucheur.—The annoyance and insult to which Dr. King was exposed at the County Court, amounted to nothing more than might have been expected. The defendants in the action had not a single circumstance in their favour, or the slightest reasonable excuse for refusing payment of Dr. King's fee. They, in consequence, most probably gave the usual instructions, under such circumstances, to their counsel, namely, to abuse the plaintiff. This course was freely followed, much, doubtless, to the satisfaction of the intelligent people present. Notwithstanding the absurd cross-examination of Dr. King, however, (so humiliating to those who suggested such a line of conduct,) a verdict to the full amount claimed was given in favour of this gentleman.

Dr. Evans Reeves.—The communication of this gentleman has been received. As his name, however, does not appear in the "London and Provincial Medical Directory for 1853," nor in the "British Medical Directory," we shall feel obliged by his favouring us with a statement of his titles or qualifications for practice. We will then take his paper into our consideration.

An "Old Subscriber" asks how, and where, is an M.R.C.S. and L.A.C., aged thirty, possessing interest, to apply for an appointment in the *home* department of the *civil* public medical service? [We should think, to the parties from whom he derives his interest.]

Dr. Budd's Fourth Lecture will appear next week.

Stupid.—The hot stupes mentioned by Dr. Coppinger consist, we suppose, of flannel dipped in hot water, and then sprinkled with the common oil of turpentine. The lectures of Dr. Graves referred to, have been published in two volumes, entitled,

Ignoramus Botanice.—We never heard of any such plant. Our Correspondent's botanical friends must have invented the name themselves.

COMMUNICATIONS have been received from—

THE HON. SECRETARIES OF THE MANCHESTER MEDICO-ETHICAL ASSOCIATION; Dr. KINGSLEY, Roscrea, Ireland; R. S.; M. R. C. S. E. and L. S. A.; A YOUNG PRACTITIONER; A LICENTIATE EXTRA-URBEM OF THE ROYAL COLLEGE OF PHYSICIANS; JAMES O. SMITH, Esq., Bury; Dr. TODD, 26, Brook-street, Grosvenor-square; J. R. PRETTY, Esq., Bayham-terrace, Camden Town; Mr. HUNT; R. ELLIS, Esq., Sloane-street, Chelsea; C. A. WHEELER, Esq., Swindon; R. J. METCALFE, Esq., King's College; THOMAS BOURNE, Esq., Radstock, Bath; Dr. DICK, 22, Newton-road, Westbourne-terrace; JOHN WOOLCOTT, Esq., Kent County Ophthalmic Hospital.

ORIGINAL LECTURES.

LECTURES

ON THE

ORGANIC DISEASES AND FUNCTIONAL DISORDERS OF THE STOMACH.

By GEORGE BUDD, M.D., F.R.S.

Professor of Medicine in King's College, London.

Lecture III.

INFLAMMATION OF THE STOMACH (CONTINUED).

The mucous membrane of the stomach may be fretted and inflamed by various conditions besides excesses in eating or drinking, and the swallowing of substances which are hard of digestion, or which exert an injurious chemical action upon it. Among these conditions may be ranked severe or long-continued abstinence. The stomach is an organ whose action, like the actions of the voluntary muscles and the brain, is destined to be intermittent; and when the digestive power is exhausted, a certain period of abstinence, or rest, is required in order to restore it. The first effect of abstinence, is, then, to strengthen the stomach, and enable it to digest a greater quantity of food; but if the abstinence be complete, and exceed a certain limit, the nutrition of the mucous membrane becomes impaired: digestion then grows feeble, and changes in the texture of the membrane take place, which, in appearance at least, are very like those which inflammation produces.

This fact, which has been indistinctly perceived since the time of Hunter, was noticed, a few years ago, by MM. Andral and Gavarret, during a course of experiments to ascertain the influence of various conditions on the composition of the blood. M. Andral says:—

"In some experiments which I undertook with M. Gavarret, for the purpose of determining the composition of the blood in animals deprived of food, one circumstance particularly struck me,—namely, a notable augmentation in the proportion of the fibrin. My astonishment ceased when, on opening the bodies of these animals, I found in their stomachs evident signs of inflammation, such as bright redness, softening, and numerous ulcerations of the mucous membrane."

He then gives the following details of one of the experiments in question:—Three dogs, in good health, were bled on the same day, the 21st December, 1841, in order to ascertain the composition of their blood, and were then submitted to different degrees of abstinence until they died.

The first was deprived entirely of food and drink, and lived twenty-one days. Some blood was drawn, for analysis, at the end of the first week, and again at the end of the second week, and it was found that the fibrin had increased in the intervals of the successive bleedings from 2·3 parts in 1000 to 3·9 and 4·5 parts.

The second dog was deprived of food, but allowed to drink water, and lived twenty-five days. Like the former, it was bled at the end of the first and second weeks, and the proportion of fibrin was found to have increased in the intervals of the bleedings, from 2·2 parts to 2·9 and 4·0 parts.

The third dog was allowed a small quantity of soup every morning, and lived thirty-three days. Blood drawn at the end of the first and second weeks had very little more fibrin than that drawn at the commencement of the experiment, but, at the end of the third week, when some blood was again taken, the fibrin was found to have increased from 1·6 parts to 3·3 parts.

M. Andral says that this dog, which was not completely deprived of food, was the only one in which the stomach was not ulcerated, and that in it the redness of the mucous membrane of the stomach was less general and less vivid than in the others.

The last instance shows, that even a small quantity of food, if it contain all the elements requisite for nutrition, may protect the stomach, and prevent those destructive changes which total abstinence causes; and this accords with the well-known fact, that persons who, from a scanty diet, are much wasted, can sometimes, like persons wasted by fever, digest great quantities of food.

[No. 714.—New Series, No. 153.]

The case is very different if a person be long restricted to food, which, whatever be its quantity, is not sufficiently varied for healthy nutrition. If such a diet be persisted in beyond a certain time, the nutrition of the mucous membrane of the stomach is impaired as by total abstinence, and, in consequence, the appetite fails, and digestion is greatly enfeebled.

This was well shown by experiments, first performed by Majendie, and subsequently repeated, and varied, by a Committee appointed by the French Institute, with Majendie at its head, to determine the nutritive properties of different kinds of food. The experiments proved that dogs kept exclusively on water, with the addition of oil, sugar, fat, or even of albumen, fibrin, or gelatine, in their pure state, soon die of starvation, just as when kept on water only.

The subject is further illustrated by the disorders of health that have been observed to occur in prisoners kept on a diet of bread and water.

A good account of these disorders has been given by Mr. Malcolmson, in a letter he addressed, in 1837, to Sir Henry (now Lord) Hardinge, on the effects of solitary confinement and a bread and water diet on the health of prisoners in India. He says, "Many men, particularly those of indolent habits, endure a confinement of four or six weeks on bread and water, without injury to their health; but, in some instances, a shorter period *is sufficient to cause a total loss of appetite; the bread is hardly touched, and on other food being allowed, the patient is unable to eat or digest it.* The stomach becomes weak; there is uneasiness across the stomach, spleen, and liver; the latter is torpid. The bowels are confined, or they are relaxed, with slimy discharges, unaccompanied with pain; yet the swollen red tongue indicates the existence of irritation of the mucous membrane of the digestive canal. The pulse is quick and feeble; and the clammy skin, vertigo, debility, headache, and sleeplessness, show how much the constitution suffers from diminished nervous power. The convalescence is slow, and the treatment requires to be adapted to the enfeebled state of the system."

It appears, from the instances given by Mr. Malcolmson, that when a man is long kept on such a diet, the health is irretrievably ruined: the subsequent allowance of food sufficient for the maintenance of health does not restore him.

These observations of Mr. Malcolmson are confirmed by the early Reports of the Inspectors of Prisons.

The irreparable injury to the health produced by long continuance in a diet deficient in some of the principles requisite for nutrition, is also well shown in the curious and painful history of Dr. Stark, who, in 1769, when he was pursuing his Medical studies at St. George's Hospital, heroically made himself the subject of experiment.

His experiments were commenced on the 12th of June; and, from this time till the 26th of July, that is, for more than six weeks, he lived on bread and water only, increasing from time to time the daily allowance of bread from 20 ounces, which he took at first, to 38 ounces. For the next fortnight, from the 26th of July to the 9th of August, he varied the diet by subtracting, first 4, and then 8 ounces, from the 38 ounces of bread, and adding an equal quantity of sugar.

The person upon whom these experiments were made was, to use his own words, "a healthy man, about 29 years of age, 6 feet high, stoutly made, but not corpulent, of a florid complexion, with red hair."

Once, during the course of these experiments, he yielded to his craving for food of other kind, and ate 4 ounces of meat, and drank two or three glasses of wine; but otherwise he adhered rigidly to the diet. On the 9th of August, that is, at the end of eight weeks and two days, he was only 2 lbs. less in weight than when he commenced his experiments; but scurvy was making its appearance. The entries made in his journal about this time show that the nutrition of the lining membrane of the stomach and bowels had become greatly impaired. He states, on different occasions, that he had little appetite,—that he ate the latter part of the allowance of sugar with great abhorrence,—that he had pains in the bowels, and frequent liquid stools, which contained some clear, gelatinous substance.

His experiments were pursued, with some slight variation, and the scorbutic symptoms made progress. Subsequently, there occurs the following entry in his journal:

"On the 8th of September, I was so weak and low, that I almost fainted in walking across my room. Had four or

five loose stools in the course of the day; was sick; and my tongue was foul."

The experiments were still continued, and the narrative goes on till the month of February, when the Doctor, reduced to the most deplorable condition, fell a victim to his love of science.

It will be seen, that in Dr. Stark, as in the prisoners that fell under the observation of Mr. Malcolmson, the loss of appetite and enfeebled digestion that resulted from the defective diet, were attended by frequent slimy discharges from the bowels. A similar disorder of the bowels was noticed by Majendie in his experiments on dogs, and continually recurs in the early Reports of the Inspectors of Prisons. The insufficient diet leads, in the bowels as in the stomach, to impaired nutrition, and often to an inflammatory state of the mucous membrane.

Happily, severe disorders of the digestive organs, resulting from insufficent food, are, in this country, extremely rare; but it is probable, that there is some truth in the popular notion, that in persons whose digestion is weak, the stomach is frequently injured by too long fasting. It has often seemed to me, that a rigid diet, too long persisted in, in the early stage of continued fever, has been productive of much mischief in this way.

Inflammation of the mucous membrane of the stomach may be excited in another way still; namely, by some noxious matter in the blood.

This has been strikingly shown by experiments that have been made on the lower animals for the sake of ascertaining the effects of arsenic. Mr. (now Sir Benjamin) Brodie, in a paper on this subject, published in the Philosophical Transactions for 1812, says:—

"Mr. Home informed me, that in an experiment made by Mr. Hunter and himself, in which arsenic was applied to a wound in a dog, the animal died in 24 hours, and the stomach was found to be considerably inflamed.

"I repeated this experiment several times, taking the precaution always of applying a bandage to prevent the animal licking the wound. The result was, that the inflammation of the stomach was commonly more violent and more immediate than when the poison was administered internally, and that it preceded any appearance of inflammation of the wound." After detailing some of his experiments, Mr. Brodie thus sums up the effects of the poison:—

"These experiments were repeated, and the results, in all essential circumstances, were the same. The symptoms produced were,—1. Paralysis of the hind legs, and afterwards of the other parts of the body; convulsions; dilatation of the pupils of the eyes; insensibility;—all of which indicate disturbance of the functions of the brain. 2. A feeble, slow, intermitting pulse, indicating disturbance of the functions of the heart. . . . 3. Pain in the region of the abdomen; preternatural secretion of mucus from the alimentary canal; sickness and vomiting in those animals which are capable of vomiting;—symptoms which arise from the action of the poison on the stomach and intestines."

The following is the account he gives of the appearances observed on dissection:—

"In animals killed by arsenic, the blood is usually found fluid in the heart and vessels after death; but otherwise, all the morbid appearances met with on dissection are confined to the stomach and intestines. . . .

"In many cases, where death takes place, there is only a very slight degree of inflammation of the alimentary canal; in other cases the inflammation is considerable. It generally begins very soon after the poison is administered, and appears greater or less, according to the time which elapses before the animal dies. Under the same circumstances, it is less in graminivorous than in carnivorous animals. The inflammation is greatest in the stomach; but it usually extends also over the whole intestine. I have never observed inflammation of the œsophagus. The inflammation is greater in degree, and more speedy in taking place, when arsenic is applied to a wound, than when it is taken into the stomach. The inflamed parts are in general universally red; at other times they are red only in spots. The principal vessels leading to the stomach and intestines are turgid with blood; but the inflammation is usually confined to the mucous membrane of these viscera, which assumes a florid red colour, becomes soft and pulpy, and is separable without much difficulty from the cellular coat, which has its natural appearance. In some instances, there are small spots of extravasated blood on the inner surface of the mucous membrane, or between it and the cellular coat, and this occurs independently of vomiting. I have never, in any of my experiments, found ulceration or sloughing of the stomach or intestine; but, if the animal survives for a certain length of time, after the inflammation has begun, it is reasonable to conclude it may terminate in one or other of these ways."

In another paragraph, he says:—

"The inflammation from arsenic, occupying in general the whole of the stomach and intestine, is more extensive than that from any other poison with which I am acquainted. It does not affect the pharynx or œsophagus, and this circumstance distinguishes it from the inflammation which is occasioned by the actual contact of irritating applications."

These experiments of Sir B. Brodie have been repeated by others with the same results, and have been further confirmed by numerous cases in which arsenic applied to a sore, or to a large surface even of sound skin, or inhaled in the form of vapour, has proved fatal in man. In such cases, unless death occur early from the action of the poison on the nervous system or the heart, pain in the belly, with vomiting and the discharge of mucus from the bowels, almost always comes on; and after death, marks of extensive inflammation of the mucous membrane of the stomach and intestines exist.

It seems probable that this inflammation results from some of the poison being eliminated at the mucous membrane of the stomach and intestines—a membrane which must be regarded, not as a mere lining of the tube, as the mucous membrane of the œsophagus is, but, also, as an expanded gland, destined to furnish abundant secretions, and, by virtue of its active secreting power, occasionally instrumental in eliminating noxious principles from the blood.

Many other substances, when absorbed into the blood from the surface of the body, have, like arsenic, an especial action on the stomach and intestines. Jalap, for example, purges, and lead excites colic, when applied to a wound. There can be little doubt that some of the noxious principles that may be bred in the body act in a like special manner on these organs, and may excite inflammation or functional disorder of them.

When arsenic is given medicinally, it should be given largely diluted, in order that it may exert no direct injurious influence on the stomach; but when this precaution is adopted, it often happens, after the medicine has been taken some time, even in moderate or small doses, that nausea comes on, with pain and a sense of burning heat in the stomach. These symptoms are usually the earliest distinct indications that the arsenic has been given in too large quantity, and it is very important to bear in mind that they depend on *inflammation* of the mucous membrane of the stomach. On the occurrence of these symptoms, the arsenic should not only be left off, but the patient should be kept on a sparing farinaceous and milk diet. The disorder of the stomach will then quickly subside.

If, after the occurrence of the gastric disorder, the use of the arsenic be continued, the sufferings referrible to the stomach increase, and an inflammatory state of the bowels likewise comes on, causing griping pains of the belly, with diarrhœa and the discharge of slimy mucus. The inflammation of the stomach and bowels thus excited seems often not to depend on the direct local action of the arsenic on the coats of the stomach, but on the accumulation of it in the system. The pain in the stomach and nausea seldom come on till the arsenic has been taken for some time; and if, under proper management, they subside speedily and the arsenic be then taken again, the disorder in most cases soon recurs.

Whenever inflammation of the stomach is excited by some noxious matter in the blood, which must necessarily be conveyed to every part of the mucous membrane, and be carried in the blood to every other part of the body, we may expect the inflammation, like that which results from the absorption of arsenic, to be more extensive than that caused by the mere outward application of an irritating agent, and to be attended by symptoms of inflammation or irritation of the bowels, and by some disturbance of the functions of other organs, which the inflammation of the stomach itself cannot explain.

The gastric disorder in yellow fever and in cholera, which is attended by great congestion of the stomach, and by effusion of fluids from the mucous membrane, which has many characters in common with those states which we

designate inflammation, is probably brought on in this way, by the influence of some poison acting through the blood.

Another instance of inflammation of the stomach arising from an unhealthy condition of the blood is that which sometimes occurs in gouty states of the system, when the gout does not fix itself in the limbs, or when it suddenly leaves them.

The stomach is more apt to suffer from the sudden retrocession of gout than any other organ; and two kinds of gastric disorder arising in this way have been recognised.

The first and most common kind usually occurs in chronic gout, and is chiefly marked by a feeling of weakness, or sinking in the stomach, with griping pain and a sense of cramp. The pain is relieved by pressure, and is seldom attended with vomiting, fever, or other symptoms indicative of active inflammation.

When the disorder has these characters, it is best treated by warm alcoholic stimulants, and by sinapisms, applied with the view of recalling the gout to the joints that have been recently or oftenest affected with it.

The second kind of gastric disorder succeeds active inflammatory gout in the joints, and is marked by severe pain in the stomach, a high degree of fever, and frequent vomiting or retching, often attended by profuse diarrhœa. If the disorder be not controlled, the active febrile symptoms are early followed by a state of alarming and sometimes fatal collapse.

This affection of the stomach is, now-a-days, of rare occurrence, and has not been sufficiently studied. There can be little doubt that the disorder is inflammatory, but that, like gout in other parts, it has characters which may serve to distinguish it from common inflammation.

One of the most striking characters of gouty inflammation of the limbs is an abundant effusion of fluid into the synovial capsules, or into the cellular tissue. In gouty inflammation of the stomach, an effusion of the same kind sometimes takes place into the cellular tissue under the mucous coat, causing great thickening of the walls of the stomach. In illustration of this, I here show you a remarkable preparation, which I have found in the museum of the College. It exhibits a considerable portion of the pyloric end of a stomach, the walls of which are enormously thickened by what seems to have been coagulable lymph effused into the cellular tissue under the mucous coat. The preparation was left to the College by Dr. Hooper, and is thus described in his Catalogue:—

"*A Portion of an Adult Stomach.*—There is considerable deposition of albumen between the coats—between the muscular and villous coats. The subject was labouring under acute rheumatic fever, with swelling of all the limbs, which suddenly disappeared, and his stomach seized with pain. He became delirious, and lived two days. Mr. Guthrie's stomach had the same appearance."

What is here termed "acute rheumatic fever" was, in all probability, acute gout affecting a great number of joints at once.

This peculiar form of inflammation of the stomach exemplifies a fact which must ever be borne in mind in the consideration of inflammatory diseases, namely, that the course and character, and, in great measure, the event, of inflammation, in any tissue, depend on the nature of the influence by which the inflammation is caused.

When the gouty disorder of the stomach succeeds active gouty inflammation of the joints, and has itself the characters of active inflammatory disease, the most efficient remedies are leeches, or a blister, applied to the epigastrium; abstinence from all stimulating food; effervescing potash-water, in small quantities at a time, to allay thirst; and opium, to alleviate the severe pain, and to support the action of the heart. In conjunction with these remedies, sinapisms or other stimulants should be used, for the purpose of recalling the gout to the joints which it has recently left.

Another form of inflammation of the stomach is now and then met with, in which coagulable lymph becomes effused into the cellular tissue under the mucous coat, which coagulable lymph, if not soon absorbed, hardens and contracts, forming a dense gristly tissue, binding the mucous membrane to the coats beneath. Inflammation having this result, frequently occurs at the margin of old ulcers of the stomach, as at that of old ulcers of the skin; but it often exists also, especially in the neighbourhood of the pylorus, independently of ulceration, or any other permanent change of texture in the mucous membrane. In such cases, the lymph is generally effused pretty evenly in the entire circumference of the pylorus, and leads to the formation of a gristly ring or band, which, by its contraction, permanently narrows or strictures the orifice. This form of the disease seldom occurs till near the age of 40, and is, I believe, almost invariably the effect of spirit-drinking. It is usually found in conjunction with marks of adhesive inflammation of the liver, spleen, and other organs, which spirit-drinking so frequently causes.

The inflammation most probably involves the mucous membrane, as well as the cellular tissue beneath; and, at its onset, causes, like other forms of inflammation, pain, and tenderness of the stomach, and vomiting. The inflammatory symptoms subside as the mucous membrane recovers; but gradually the lymph in the cellular tissue contracts, and those disorders ensue which a narrowing of the pyloric orifice of the stomach occasions. The food is retained in the stomach longer than it should be; the stomach consequently grows larger, and the patient has an unusual facility of vomiting. Some years ago, I made a *post-mortem* examination of a gentleman who died of granular disease of the kidney, in whom narrowing of the pyloric orifice of the stomach, from adhesive inflammation of the areolar tissue, likewise existed. The only indication of this latter disease was an extraordinary facility of vomiting, which he had long had. He could empty his stomach almost when he pleased; but he sometimes vomited involuntarily, especially after having indulged more than usual in eating and drinking; and, on such occasions, it almost invariably happened, that the liquids he had taken were rejected, while the solids were retained.

When the narrowing of the orifice is greater, and the action of the muscular fibres near the pylorus is impeded, the stomach seldom completely empties itself, and the acid residue of digestion in it ferments, causing heart-burn, sour eructations, and flatulence, and now and then excites inflammation of the mucous membrane. The stomach continues to grow larger, and, as its capacity augments, the vomiting may become less frequent, but more is thrown up at a time, and at length the disease destroys life by impeding the passage of the food into the intestine.

The same symptoms of obstruction are produced by cancer of the pylorus, which occurs at the same age, and from which the disease we are considering is distinguished by its slower progress; by the absence of hæmorrhage, which frequently occurs in cancer; by the absence of any perceptible tumour; and by the circumstance, that it occurs almost exclusively in spirit-drinkers.

In some cases, the disease, instead of being limited to the pylorus, extends some distance in front of it, and the morbid changes, as well as the symptoms, are very difficult to distinguish from those of cancer.

During the inflammatory process, the disease, like adhesive inflammation of the liver, is probably much under the influence of treatment. Leeches, and blisters, and diet, would lessen the inflammatory action, and no doubt favour the absorption of the effused fluids. When the inflammatory process is over, and the lymph has become hard and contracted, the treatment can only be palliative. The evils resulting from undue acidity and flatulence may be mitigated by remedies suited to these conditions. Vomiting and other gastric disorder may be lessened by proper regulation of the diet; but the most important point is, to make the patient give up his habit of drinking, and thus to prevent recurrence of the inflammation, and other addition to the mischief already done, than that which time of itself brings.

In the *treatment* of inflammation of the mucous membrane of the stomach, the fundamental point is to give the stomach sufficient intervals of rest, and to avoid irritating it by physic or food. For inflammation brought on by alcoholic drinks, or by undigested or irritating food, nothing more is generally necessary than cooling drinks, and restriction for a few days to a sparing diet, consisting of light broths, farinaceous substances, and milk. If the inflammation be very severe, causing much pain and tenderness, with a sense of heat at the stomach, and frequent vomiting on the contact of food, leeches may be applied to the epigastrium; the stomach may be cooled, and its irritability much lessened, by sipping from time to time iced water, or by holding pieces of ice in the mouth, and swallowing the water as the ice dissolves; and the diet may be still further restricted. Broths may be interdicted, and, for a few days, nothing more be allowed than the simplest drinks, and those farinaceous

substances that are principally composed of starch. In active inflammation of the entire stomach, or when, from any cause, the digestive power is very feeble, there is usually dislike of animal food, and, by a natural instinct, arrow-root, gruel, etc., are substituted for it. Even farinaceous substances, when they contain much gluten, are found to be heavy and oppressive. The peculiar business of the stomach is to dissolve the albuminous constituents of the food. The gastric juice has comparatively little action on the starch, which, consequently, taxes the stomach less, most probably passes out of the stomach more quickly, and is certainly found, when the digestive power is suspended, to be less oppressive to it. As I have before observed, the restoration of the stomach to its healthy condition is greatly promoted by the active nutrition of its lining membrane.

It may here be not an unfitting place to speak of an appearance of the inner surface of the stomach, to which attention was, I believe, first called by M. Louis, who described it as the "*état mammelonné*," "the mammillated state," of the mucous membrane. The mucous membrane, in some parts of the stomach, instead of having an even velvety surface, presents prominences, not unlike the granulations of a wound, separated by superficial furrows.

The mucous membrane, which exhibits this mammillated appearance, varies in colour in different cases, being sometimes rosy, but more commonly greyish. It is always manifestly thickened, and is usually covered by a thicker layer of mucus, and by more viscid mucus, than other portions of the stomach. By some pathologists, the mammillated state has been ascribed to contraction of the muscular fibres of the stomach. The muscular fibres of the stomach, as of other parts, contract after death by the rigor mortis, and contract in greater degree than the mucous membrane. The tendency of this contraction must be to throw the mucous membrane into folds, or, if the mucous membrane be adherent along certain lines to the tissues beneath, to raise or throw out the intermediate spaces, and thus, if the adherent lines be fitly placed, to produce prominences like those in question.

But it was rightly remarked by M. Louis, that the mammillated appearance of the stomach cannot be attributed to contraction of the muscular fibres, because it is often found in stomachs which are considerably distended, and sometimes does not exist at all when the stomach is much contracted. It really depends on actual thickening of the mucous membrane at the projecting spots, and this may arise from various causes.

It sometimes arises from mere increased secretion, or retained secretion; and in that case, by strong pressure of the finger, the retained mucus may be squeezed out, and the mammillated appearance be destroyed. The appearance is most common in those parts of the stomach where the mucous membrane is thickest, and furnishes the most viscid mucus. In the big end of the stomach, where the membrane is thinner, and its secretion more liquid, it is less frequently seen, and, when it does exist there, is less in degree.

It is sometimes found, as a consequence of retained secretion, in persons who had fasted for some hours before death.

In persons who die speedily of malignant cholera, where the stomach pours out in extraordinary abundance a gruel-like fluid, the mucous membrane in a large portion of the organ always presents in a striking degree this mammillated appearance. By pressure between the fingers, a thick, gruelly fluid may be squeezed out, and the membrane be at once rendered smooth and even.

The appearance is also often seen in persons dead of yellow fever, which resembles cholera in being attended by an abundant secretion from the mucous membrane of the stomach.

The mammillated state was attributed by M. Louis to inflammation of the mucous membrane, and may doubtless result from the thickening of the mucous membrane which inflammation causes; but it may equally arise from any other vital process which increases the secreting activity of the cells, and favours the retention of the secreted fluids within them. That it is not generally a serious pathological change is sufficiently shown by the observations of M. Louis himself, that often it is not denoted by any symptoms of gastric disturbance, and that it is always found in conjunction with some other disease. Another circumstance which shows that it cannot be considered in all cases a morbid state is, that it is sometimes found in persons killed by accident in the midst of health.

On the 15th of May, 1846, at eleven a.m., a robust labourer fell from a scaffolding at the British Museum, and fractured several of his ribs. He was taken to King's College Hospital, where he died about an hour after the accident. The following day, twenty-six hours after death, when the body was opened, the stomach was found empty, and the mucous membrane towards the pyloric end was of a greyish colour, thickened, mammillated, and covered with ropy mucus. The mammillated appearance probably resulted here from the circumstance, that death occurred just before the time of the principal meal, and when the stomach had been for some hours empty.

ORIGINAL COMMUNICATIONS.

THE CONNEXION BETWEEN RHEUMATISM, PERICARDITIS, AND JAUNDICE,

PRACTICALLY ILLUSTRATED BY THREE CASES IN HIS OWN PRACTICE.

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Case I.—Shaik Najib, a Mohammedan, aged 25, well made, robust, of a bilious temperament, and at present following the occupation of "syce" (groom), was admitted under me on the 5th of July, 1852, about 7 o'clock p.m.

Previous History.—He had always resided in the country (Guzeepore), where he lived as an ordinary labourer, until last year, when he came to Calcutta, and since which he has served as a "syce." His habits, generally, have been very irregular, more especially during the last twelve months. He is greatly addicted to the abuse of venery, tobacco, and gunjoh. As to previous diseases, he is unable to render a full account of them; but he states that he has had fever several times, and a chancre about two years ago, followed by a cutaneous eruption, but no gonorrhœa or rheumatism. All the members of his family, viz., his father and mother and four brothers, have been peculiarly healthy, and have never yet suffered from arthritic complaints.

History of Present Attack.—About six days back he had been a good deal exposed to the rain. He felt ill, and was seized with a fever two days afterwards, accompanied with aching of the whole body, more particularly over the heart. The fever then gradually subsided, but the pain in the præcordial region increased, and it was now attended with difficulty of breathing. About eleven hours before his admission he noticed that his urine had suddenly stopped, and, as the secretion did not return the whole day, he was so much alarmed, that he thought it indispensable to come forthwith into the hospital.

Symptoms on Admission.—Skin cool and dry; complexion livid generally; superficial veins all greatly distended and turgid, more especially on the arms, neck, and head; conjunctivæ congested; respiration excessively hurried and laborious; pulse very much oppressed, quick, and intermittent; heart's action inordinately excited, the beats following each other in such rapid succession as scarcely to permit the pulse to be counted; præcordial region bulging and painful; urine suppressed for the last eleven hours; a catheter passed into the bladder came out dry; the bowels have not been relieved to-day; considerable restlessness and despondency.

Bleeding to ℥xviij., after which the patient felt much better in every respect, when he was ordered to remain perfectly still, and have his loins fomented. The diet was to be low.

6th.—The venesection performed yesterday, restored, in a short time, the urinary secretion during the night, although the quantity of what has been passed is small. The lividity of the lips and ears, and generally of the complexion, so marked at the time of admission, has now given way to a dingy yellow colour, which pervades the whole body, the conjunctivæ inclusive. The veins, so distended on the arms, neck, and head, are now scarcely visible; the respiration easier, and lower in frequency than yesterday; a twisting

pain near the umbilicus; tongue of natural colour at the edges, rather dry, covered with a pale fur at the upper surface, and of usual temperature; pulse 64, irregular, moderately full, weak; the heart's sounds are still so fast that they cannot be counted; a wavy motion is seen in the fourth intercostal space, extending along its long diameter; the cardiac dulness, on percussion, is found to be oblong in shape, measuring 5½ inches in length, and 2½ in breadth, at the middle of the dulness, as well as its upper and lower ends; on placing the patient in the sitting posture, the upper limit of the dulness comes down 1¾ to 2 inches, and the lower descends to the corresponding extent; the difference between the upper limit of the dulness in this and the horizontal position is perfectly clear on gentle percussion; but, on deep, it gives a duller sound than the other situations in the neighbourhood; no respiratory murmurs whatever are heard on this dull space, except at its upper external angle and upper edge. With these murmurs is heard a cooing rhonchus. Percussion note of the chest in front generally is clear; the respiratory murmurs in the left infra-clavicular region are of usual force and rhythm, but somewhat coarse, and associated with cooing, sonorous rhonchus; ditto ditto in the right infra-clavicular region; in the right mammary the murmurs are feeble and distant; on percussion of the right side of the chest, its note is found to be not only clear, but also tympanitic; bowels opened four times; appetite null.

℞ Pil. hydrarg. gr. iv.; opii gr. 1-6. M. ft. pil. ter die sumend. Rub into the præcordia ung. hydrarg. nitrat. ʒj.

Vespere.—The eyes are decidedly yellow; there is a severe headache; the bowels have opened four times; the heart's sounds are still too frequent to be counted; the restlessness of the patient is very great.

Continue the pills, increasing the dose of opium to gr. ½; apply iced water to the head; let him have astringent injections twice a day, consisting of plumb. acetat. gr. xv.; tinct. opii ʒj.; aq. ʒiv. Ft. enema. Port wine ʒij.

7th.—Tongue dry, dull red, and pitted longitudinally; eyes still yellow; bowels moved six times; stools shiny, scantier than yesterday, and contain much less blood; urine natural in appearance, small in quantity,—measuring altogether 3 ounces; the form of the præcordial dulness is now pyramidal with its apex below,—its diameter, in length 4½ inches, and in breadth 2½ inches; the pulse at the wrists corresponds in number with the cardiac beats; the heart's sounds are not so fast as they were before, but still they are fast enough to render it difficult to count them; distinct clicks of friction are audible towards the inner part of the dull space,—more particularly during expiration; they accompany the systolic sound, which itself is not markedly affected, except so far as regards its intensity and duration, no friction phenomenon exists in any other part of the heart, where the ordinary sounds are heard without any murmur; the fluctuating motion, observed yesterday, still continues,—it extends now to the third intercostal space; the patient can raise himself in bed without assistance, and, on his doing so, the cardiac dulness descends about an inch, its lower extremity becomes broader, and the fluctuating motion disappears.

Continue the pills, injections, ointment, and cold application to the head; apply emplast. lyttæ 5×4 to the epigastric region; diet low; milk Oj.; port wine ʒiv.

Vespere.—Has had five motions, consisting chiefly of blood, and accompanied by three round worms.

℞ Acidi gallici gr. iv.; opii gr. ½; ft. pil. quartâ quâque horâ sumend. Continue enemata and cold application.

8th.—Has had four stools, smaller in amount, but still dark and tarry in appearance; the abdominal pain is less; the head is cooler; the eyes a little brighter; tongue dark at the upper surface, reddish at the edges, moist; the cardiac dulness, in the recumbent posture, has the same form and extent as yesterday; the pulsatile motion is still observable; sounds of the heart still fast, irregular, and feeble; respiratory murmurs now audible in the upper part of cardiac dulness; friction-sound now scarcely audible; there is a great deal of sonorous rhonchus in both sides of the chest; has passed the usual amount of urine, of a deep brown colour; a good deal of yellow fluid exudes from the epigastric blister.

Continue the pills, enemata, cold application, and the same diet.

9th.—The urine is now copious, deep yellow, semi-transparent; the patient is suffering a good deal from hiccough; stools, six in the last twenty-four hours, still bloody, liquid, and copious; head hot, veins on the surface marked, conjunctivæ greenish-yellow; tongue dry, black, and rough; skin hot, and dry; pulse 112, moderately full, firm, and perfectly regular in rythm; the double sounds of the heart are precisely of the same number as the pulse, perfectly regular in rhythm, natural in force, and free from murmur, (this holds good all over the cardiac region); the form and size of the cardiac dulness are exactly as they were yesterday; the motion in the fourth intercostal space is not so fluctuating as before; no alteration in the limits of the cardiac dulness takes place on the patient's assuming the sitting posture; the pupils of small size, and contract readily on exposure to light; a good deal of yellow discharge came out from the blister; the left lobe of the liver extends an inch and a-half beyond the mesial line; its upper and lower limits are quite natural; the sonorous rhonchus noticed in the chest has completely disappeared.

℞ Acidi gallici gr. vi., pil. hydrarg. gr. iv., opii gr. ¼. Ft. pil., two to be taken every four hours. App. hirud. viij. temporibus. Cont. cold application and enemata. Diet, sago and milk, Oj.

10th.—Bowels opened five times last night, motions consistent, dark-coloured, very slightly bloody; has passed a considerable quantity of urine; the yellowness of conjunctivæ continues; tongue still dry and rough; complains of pain about the umbilicus, and of dryness of the throat; pulse 116, full, regular, pretty firm; pupils small, but naturally contractile.

℞ Pil. hydrarg. gr. iv., pulv. ipecac. gr. ii., extracti taraxaci gr. ii., opii gr. ¼. M., ft. pil. ter in die sumend. Continue enemata, cold application, and diet.

11th.—Bowels moved three times, stools lumpy, feculent, clayish, and continue bloody; pain in the head; conjunctivæ yellow; tongue dry, furred, and black; abdomen fallen; griping of the bowels still distressing; urine considerable in amount, and of a deep yellow colour; eyes very much sunken; pulse 112, small, feeble, and regular; extent and situation of cardiac dulness same as before, sounds at the apex weak, but regular; ditto ditto over the rest of the heart; there is a little cough; the respiratory murmurs over the whole of the chest weak, not otherwise modified.

Omit pills and enemata; continue cold application and diet; the sago to be given three times a day; give him port wine, ʒiv.

℞ Hydrarg. c. cretâ gr. v. pulv. Doveri gr. iv. Ft. pulv. to be given at bed-time. ℞ Sp. æth. nitrici ♏ xii.; tinct. camph. co. ♏ xv., tinct. hyoscyami ♏ xv.; mist. camphor. ʒi. Ft. haust. to be taken every four hours.

12th.—Bowels opened six times, motions scanty, fæculent, and fetid; tongue a little moister, though still covered with a black fur; head somewhat better; urine passed freely and copiously; eyes still sunken, and their conjunctivæ yellow; abdominal pain same as before.

Continue medicines and diet as yesterday.

13th.—Bowels opened three times, motions fæculent, light-coloured; a good deal of pain still remains in the abdomen; countenance cheerful; tongue moister at the edges and tip, but dry in the centre; urine abundant, deep yellow, and opaque; pulse 108, moderately full, rather weak, but regular in rhythm; cardiac dulness of the same size and form as before; the wavy fluctuation is almost gone; both sounds at the apex are more intense than formerly, and perfectly free from murmur; ditto ditto over the rest of the heart; no pain in the head; yellowness of the conjunctivæ, if anything, less.

Continue powder, mixture, cold application, and diet.

14th.—The countenance is much improved; eyes less yellow; tongue very slightly red, clean; respiration tranquil; no fluctuation now in the cardiac region; pulse 104, small, weak; abdomen fallen; bowels opened only once in the last twenty-four hours; motion feculent, soft, light-coloured; urine copious, deep yellow, and deposits a good deal of sediment; appetite craving; abdominal pain greatly diminished; skin of ordinary temperature and suppleness; not a trace of distended veins to be seen anywhere; the patient observes that he is much emaciated, but he can now sit up without help; his hearing is good.

Omit cold application. Continue powder and mixture; also sago and port-wine, as before. Increase the milk to Oij. To add some rice.

15th.—Bowels opened twice; motions feculent, soft, clay-coloured, and fetid; there is a griping pain in the abdomen; the tongue is quite clean and moist; eyes much improved;

no headache; respiration tranquil; pulse 108, small, weak, and regular.

Continue mixture and diet.

℞ Olei ricini ʒvi.; olei terebinthi ʒiij. Ft. haust. s. s.

Vespere.—The bowels have been moved seven times without any worm being passed; the griping pain is very distressing still, and the patient feels very weak.

℞ Mist. cretæ co. ʒiss.; tinct. opii ʒss. Ft. haust. stat. sum.; et horâ somni si dolor contin. Morph. muriat. gr. i.; ex aq. menth. piperat. ʒj.

16th.—The griping pain of the abdomen has completely disappeared since taking the medicines prescribed last evening; the bowels have been moved since only once this morning; the tongue is still clammy, but the conjunctivæ are much improved.

Continue mixture and diet.

17th.—The urine is copious in amount, of a deep yellow colour, opaque, and deposits, on standing, a dark sediment; bowels opened three times; motions of moderate size, light-coloured; yellowness of the eyes greatly diminished; no pain in the abdomen; tongue quite clean and moist; no headache; appetite improved; feels better; has slept well; pulse 108, weak, small, but regular; no fluctuation visible in the præcordial region; cardiac sounds weak, but otherwise regular, and free from murmur.

Continue the diet and mixture, and resume the powder at bed-time. Let him have some doll.

18th.—Feels very greatly improved; has passed a large quantity of urine, of a greenish yellow colour, frothy on the surface, and having a good deal of sediment; tongue moist and clean; yellowness of the conjunctivæ less; bowels opened only once; stool more coloured than before; appetite good; no pain anywhere.

Continue medicines and diet.

19th.—Urine still deep yellow, and throws down a sediment, consisting of a deep yellow, flaky substance. He has passed only one stool, more coloured still than yesterday. When asked how he is, he says he feels quite well, and twists his moustaches; eyes lighter coloured; tongue cleaner.

Continue medicines and diet.

20th.—Urine considerable, and greenish yellow, as before; stool one in the last twenty-four hours, more coloured than the previous one; yellowness of the conjunctivæ has entirely disappeared; the tongue is quite natural; there is no pain in the bowels; the strength is returning fast. He was given last evening—

℞ Ext. coloc. co. gr. viij.; hydrarg. chlorid. gr. x.; made into three pills, on account of his complaining of costiveness.

Continue medicines and diet.

21st.—Improves. Treatment continued.

22nd.—Urine lighter in colour, and contains no sediment; eyes much brighter; stool more coloured. Treatment continued.

23rd.—Urine light yellow, and perfectly transparent; bowels regular; stool natural; tongue natural.

Discharged.

Case 2.—John Fitzgerald, aged 25, an English seaman, of a spare make, nervous temperament, and good constitution, residing, since his arrival in this port, in the Union Hotel, was admitted under me on the 18th of July, 1852.

Previous History.—The patient states, that until three years ago he served as a clerk in England. He has, to his recollection, been laid up only twice, once with rheumatism and once with fracture of the right forearm. Since leaving England, (three years ago,) he was employed as a surveyor in Sydney, where he enjoyed very good health. He has become a sailor only for the purpose of getting a passage home without expense, and has had to do work to which he is not accustomed. To the hard work under exposure, as well as to abuse of drinking of late, he attributes the origin of his present illness, which commenced two days before his admission into the hospital with fever and pain in the back and legs, and looseness.

℞ Pil. hydrarg. gr. iv.; ext. coloc. co. gr. vi.; antim. potass. tart. gr. 1-6th. Ft. pil. ii. h. somni sumend.

℞ Sodæ. potass. tart. gr. xv.; potass. nitratis gr. v.; antim. potass. tart. gr. 1-6th; aquæ puræ ʒi. Ft. haust. qq. secund. horâ sumend. Low diet.

19th.—The fever, since its first accession, has been continuous; the eyes are red. On lifting his head he feels a pain in the frontal sinuses; tongue covered with a light yellow fur; slight cough; skin of ordinary temperature and moisture; bowels moved five times; pulse very weak, both when sitting and when lying.

Continue mixture and diet. Vespere.—App. catap. sinap. region. lumb.

20th.—Pulse, 78, full, but weak; the pain across the loins, complained of last evening, is a little better; thirst urgent; eyes still injected; tongue covered with a dry brown fur; has no cough; skin moist and of ordinary temperature. There is a tinge of yellowness in the complexion; has had three stools, fæculent, soft, light coloured; no headache; urine high-coloured.

Continue mixture and diet. App. emplast. lyttæ 4 × 5 to the region of the liver.

℞ Hydrarg. c. creta gr. v.; pulv. ipecac. co. gr. iv. Ft. pulv. nocte maneque sumend.

21st.—Found asleep. On waking, he says he feels very weak; the jaundice of the body is now very distinct; the blister has been discharging a large quantity of fluid; tongue dry, rough, and red at the apex; lips also dry; no headache; skin of ordinary temperature and suppleness; urine contains a large quantity of sedimentary matter; bowels opened once last night, the motion was slightly coloured; pulse 80, intermittent after every four beats; there is a dryness of the mouth and throat complained of by the patient. The præcordial region on expiration is found to be fuller than the corresponding region on the opposite side; the respiratory movements in this part are greatly diminished; there is also a vibratory motion here. On percussion an oblong dulness is found to occupy this region; it is six inches in length and three and a quarter in breadth, opposite its centre; at its lower extremity, two seven-eighth inches; at the upper extremity, three inches; the cardiac sounds at the lower end of this dull space are extremely feeble, accelerated, and regularly intermittent, as at the wrist; they are a little more distinct about the middle of this region, retaining, however, in other respects, the same characters; ditto, ditto at the upper end; on striking over the lower and inner angle with the fingers, the patient complains of pain, and it appears that before his admission, as well as since, he has had a tightness across the chest which he never mentioned until now; the second sound at the middle of the base is reduplicate; there is a pain across the back and in the joints; respiration, 32 in the minute; heart's sound cannot be counted; the re-action of the perspiration is acid. On raising the patient to the sitting posture, the inferior limit of the præcordial dulness descends one and a quarter inches, the same change being noticed at the upper limit; the limits of this dulness are moveable likewise laterally, according to the changes of the patient's position to the right or left.

App. emp. lyttæ 5 × 4 inches region. præcord.

℞ Ext. coloc. co., hydrarg. chlorid., aa gr. x. Ft. pil. iv. stat. s. et post horas duas.

℞ Ol. ricini ʒi.

℞ Pil. hydrarg. gr. iv.; pulv. ipec. co. gr. iii. Ft. pulv. ter die sumend.

Vespere.—Repeat the pills every four hours.

22nd.—Has had six motions, of a brownish colour; has made a large quantity of urine, also brownish, and holding a good deal of sediment; complexion considerably clearer, the jaundice having been reduced one-half; tongue moist, covered with a grey fur, red at tip; thirst less; yellowness of the conjunctivæ less; no headache; slept well; no tightness of the chest; the præcordial dulness is of natural form and size (1 × 2½ inches); cannot eat on account of dryness of the mouth and throat; pulse 100, moderately full, regular, and weak; heart sounds quite natural, being perfectly free from all deviations and abnormal character; respiration 18.

Repeat the purgative and continue the pills. Diet: bread, a full loaf, and sago.

23rd.—Feels better—looks better, too; has had five stools, dark coloured, fæculent, copious, semi-liquid; the jaundice is less somewhat than yesterday; the blister did not rise very well, and has not, therefore, discharged freely; tongue moist, and covered with a soft grey fur, dull-red at apex; body generally of ordinary temperature; eyes lighter; urine deep yellow, with an oily substance floating on the surface, and moderate in amount; abdomen of usual shape, free from pain, tolerably soft, except at the umbilicus; the percussion-note is generally tympanitic; the stomach is found to be considerably distended; pulse 104, small, weak, and

regular; respiration 18; pain in the joints less; the headache continues; appetite indifferent; sleeps pretty well.

Continue medicine and diet; sago three times.

℞ Pulv. rhei co. ʒi., s. s.

24th.—Has had two stools only; complains of pain in the epigastrium; jaundice much the same as yesterday.

Continue medicines and diet; app. emp. lyttæ 6 × 5 abdomini vespere. ℞ Olei ricini ʒi., s. s.

25th.—The blister has been discharging profusely a yellow fluid; the jaundice is greatly reduced; skin cooler and moister; has had three stools; the urine has been copious, surcharged with a deposit of a yellow colour; vomited once last night after taking the castor-oil; tongue still dry, and light-brown, except at the apex, where it is dull red, and marked by furrows; mouth dry; abdominal muscles still somewhat tense; skin covered with sudamina; pulse 96, small, weak, and regular; comparatively little fluid remains in the cavity of the pericardium.

Continue medicine and diet.

26th.—Finds himself a good deal better this morning; has no pain anywhere; the bowels have been moved five times; stools feculent, bilious, soft; yellowness of the conjunctivæ still continues; of the skin, much less; tongue improving; skin cool and moist; the blister continues to discharge a greenish yellow fluid; he has passed a large quantity of urine, high coloured, and full of sediment, sp. gr. 1025, and gives evidences of the presence of bile on applying nitric acid to it; no præcordial fulness; the form of the cardiac dulness is now natural; its measurements, in length 5¾ in., and in breadth, 3 in.; sounds at apex weak, but perfectly regular; about the middle half of this region and at its outer edge, the sounds are a little louder; nothing particular anywhere else; the lower limit of the dulness still descends about an inch when the patient sits up, and the upper comes down the same distance; pulse 92, small, weak.

Continue diet and pills; app. emp. lyttæ 5 × 4 reg. præcord. vespere.

℞ Argent. nitrat. gr. ii.; aq. ʒi. M. ft. col. to be dropped into the eyes.

27th.—Was complaining of a pain in the eyes when seen last evening, both conjunctivæ being congested; the collyrium ordered to be used has removed this pain, and also much of the redness, though a gritty sensation is still felt; the yellowness of the complexion is fainter; skin of ordinary temperature and moisture; no tightness of the chest; breathing tranquil, about 20; pulse 96, moderately full, soft, and regular; tongue a great deal cleaner, and of ordinary temperature and moisture: appetite much improved; slept well; urine still loaded with a brick-red precipitate.

Continue medicine and diet.

28th.—Feels better; slept well; the redness of the eyes is completely gone; has no fever or headach; complexion improves; the blister continues to discharge a large quantity of yellow fluid; the urine is loaded with the colouring matter of the bile; has had two motions, black, feculent, and of natural consistence; pulse 72, small, weak, regular; tongue assuming its natural appearance at the edges.

Continue medicine and diet, adding chicken broth Oj.

29th.—Eyes and complexion very little yellow; tongue moister, but still red at the tip; motions three, thin, dark coloured; no pain anywhere; the urine is still deep yellow; pulse 100, moderately full, tolerably firm, regular; the appetite is getting better; the blister in the præcordial region is not yet healed.

Continue medicine and diet.

℞ Olei ricini ʒi. stat. sumend.

30th.—Has had five motions since last report, dark, feculent, of moderate amount; tongue moistened, covered with a soft yellow fur; no pain anywhere. Continue diet. Omit medicine.

℞ Pil. hydrarg. gr. ii.; extracti taraxac. gr. iij.; pulv. ipecac. co. gr. iv. M. Ft. pil. ii. 4tâ. qq. horâ sumend.

31st.—Feels quite well; slight yellowness of the complexion still remains; urine deep yellow; three stools since last report; pulse 80, small and weak.

Continue medicine and diet, adding chicken grilled to the latter.

August 1.—Has had only three stools in the last twenty-four hours, feculent, and of natural colour and consistence; urine copious, and more transparent; no pain anywhere.

Discharged.

Case 3.—William Abbmett, a muscular, sanguine, but of late debilitated, English seaman, aged 42, residing, since his arrival at Calcutta, in the Albion Hotel, was admitted under me, at eleven o'clock a.m., on July 24th, 1852.

History.—Had had syphilis fifteen years ago, and rheumatic pains about six years ago; has lived at the Albion Hotel for only a fortnight, but during that time has freely indulged himself in the use of intoxicating drinks, while he has neglected to take his ordinary meals. His bedroom was leaky; and, the day on which he got ill, he had been walking about a good deal in the sun. ℞ Pulv. jalap. co. ʒj. stat. s.

Vespere.—℞ Vini ipecac. ♏x.; sp. æth. nitrici ♏xv.; liq. ammon. acet. ʒij.; aquæ puræ ʒj. Ft. h. 4tâ qq. horâ sumend.

℞ Morph. muriat. gr. i.; aq. menth. pip. ʒj. Ft. h. horâ somni s. Diet low.

25th.—Came on yesterday with a general aching of body, giddiness, and pain in the frontal sinuses. Was given a purgative, which operated freely; the medicines ordered last evening have removed the dizziness and pain to some extent.

Continue medicine and diet.

26th.—Skin moist, and of ordinary temperature; tongue moist, of natural colour at the edges, covered with a pretty thick layer of yellow fur at the upper surface; pulse weak; scarcely any appetite; bowels moved once.

Continue medicine and diet.

℞ Liniment. camphor. co. q. s., to be rubbed on the painful parts.

27th.—Has had four or five motions since last report, feculent and brownish; feels better; tongue moist, pretty clean at tip and edges; skin of ordinary temperature; complexion yellow; pulse 108, full, soft, and regular; urine high-coloured; appetite better.

Diet, a full loaf of bread, and sago. Continue medicines.

℞ Ext. hyoscyam. gr. x., stat. s.

28th.—Has made a large quantity of urine, which is quite transparent, and of a deep yellow colour; bowels moved once; motion scanty; sclerotic conjunctivæ reddish yellow; tongue yellow, moist, free from fur; complexion generally yellow; pulse 120, irregularly intermittent, moderately full, weak; declares that he does not feel any tightness of breathing; the left side of the chest generally looks fuller than the right; the false ribs on the right side protrude considerably, so as to diminish the angle between them and median line very greatly; there does not seem to be any impediment to breathing; a very obscure pulsatile motion is seen, upon careful observation, to exist in the præcordial region; occasionally the left nipple starts forward, as if struck by something behind it; the pulsatile motion can be obscurely felt on pressing with the fingers the intercostal spaces; the præcordial dulness is of a conical form, the apex of the cone being above and opposite the third rib, and the base below and on a level with the ensiform cartilage; its outer edge is within the nipple, and its inner to the left of the mesian line; it measures in length 5¾ inches, and in breadth, across the chest, 3½ inches, at the upper end 2 inches, and at the lower 3¼; from the apex to the outer border of the base it measures 6 inches, and from the same point to the inner 4⅞ inches; both cardiac sounds at the ordinary situation of the apex are weaker than usual; the first sound completely masked by a rough murmur, the second dull, both intermittent occasionally, after irregular intervals; the same phenomena are observable at mid-heart central; at mid-heart internal a slight friction sound is heard along with this systolic murmur; no murmur at base, central, external, or internal; on the patient's standing up, the lower border of the dulness descends ½in., and a corresponding diminution or descent is seen at its upper boundary; the little friction heard in the horizontal position is abolished on the assumption of the erect posture.

Continue diet. App. emp. lyttæ 5 × 4 region. præcord.

℞ Pulv. jalapæ co. ʒj., stat. s.

℞ Pil. hydrarg. gr. iv.; pulv. ipecac. co. gr. ij. Ft. pulv. 4tâ qq. horâ sumend.

29th.—Has had three stools, feculent, soft, dark-coloured, passed without griping; has made a pretty large quantity of urine, deep yellow, transparent, free from sediment; the blister draws, and has been discharging freely a yellow fluid; complexion clean; conjunctivæ less yellow; tongue moist, dull pink, very slightly furred; no soreness of gums; no difficulty of breathing; pulse 88, small, weak, soft; no appetite; slept for two hours; pupils small, but contract readily on exposure to light; no pain or uneasiness in the abdominal or hepatic region; that in the knee and other joints is gone.

Continue diet and medicines.

30th.—The blister has been still discharging freely; he has made a large quantity of water, and had one stool; tongue nearly natural; pulse 80, small, tolerably firm, perfectly regular; has a chancre at the under surface of the penis; the jaundice is fast disappearing.

Continue medicines, and add soojie and a pint of milk to the present diet.

August 2.—Urine quite natural in appearance, and so also the stool; complexion natural; no pain or tightness about the chest; eyes much clearer than they were; says he feels a noise sometimes in the head; the heart sounds are now quite natural.

Continue medicine and diet, adding a grilled chicken, and beer Oj.

3rd.—No yellowness now about the body; bowels moved four times; dejections yellowish, frothy; urine normal in amount, transparent, reddish yellow; appetite good.

Continue medicine and diet.

4th.—Has no pain anywhere; the heart sounds are quite natural; appetite good; tongue natural; the bowels have moved twice since last report; urine natural.

Discharged.

Having now finished the detailed description of these cases, I cannot dismiss the subject without adding a few remarks upon the various points of interest.

1st. Was the diagnosis with respect to the presence of rheumatism, pericarditis, and jaundice, demonstrable in all the three cases?

With respect to the presence of rheumatism, the only evidence we have consists in the existence of pain, more or less severe, in different parts of the body, but more especially in the back and limbs, from the very outset of their complaints. But in none of the patients was there any swelling or redness of the joints. Yet, when we take together the pain, such as it was, and the supervention of pericarditis, all our past experience forces us to conclude that there was here rheumatism, although of a mild character.

As to pericarditis, the following characteristic phenomena were found to be common to all the three cases; viz., acceleration, smallness, feebleness, and intermittence of the pulse; dyspnœa; prominence, increased diameters, and alteration or reversion of the conical form of the præcordial space; presence of friction sound; presence of fluctuation in the præcordial intercostal spaces; changes of the limits of the præcordial dulness on changing the position of the patients; disappearance of all these symptoms, and their return to the healthy condition, under treatment. If we add now to all these the co-existence of rheumatism and fever, we shall have had, I believe, as strong proof of this disease as we can hope for under the existing state of our science.

Yellowness of the complexion, mucous surfaces, and secretions, and deficiency of colouring matter in the stools, were conclusive evidence with regard to jaundice.

2ndly. In what order, if any, did these affections develope themselves?

In reference to the order of their occurrence, in the first case the rheumatism and pericarditis manifested themselves simultaneously,—the jaundice five days later; in the second, too, the rheumatism and pericarditis set in together, although the patient did not refer to the latter until it was found out, four days after his admission, when he confessed he had had pain and tightness in the præcordial region from the very beginning, but which he did not deem necessary to mention before; the jaundice was noticed on the third day of his stay in the hospital; in the third, the rheumatism was noticed first, jaundice on the third day, and pericarditis on the fourth; but, as effusion had taken place, when it was discovered, into the cavity of the pericardium, this affection must have commenced at some antecedent date, perhaps previous to jaundice, and coetaneously with the rheumatism. To the mildness of the earlier symptoms in every one of these instances, must be ascribed the obscurity in which the disease progressed until sufficiently advanced to give rise to marked changes. I am inclined, therefore, to think that the order in which these affections are stated at the head of this communication, was, likewise, the order of their development in, at least, these three cases; and that a time arrives in their course when, although jaundice may be the most marked, apparently, yet the danger threatened by it is far less serious than what is to be apprehended from the hidden lesion in the pericardium.

3rdly. What were their causes, durations, courses, terminations, and treatment

With regard to their causes, prolonged exposure to cold and wet seems to be the only one satisfactorily made out. Whether age or sex has any influence upon them, we are not yet in a position to answer, since the cases referred to were all adult males, (first, aged 25 years; second, 25 years; third, 42 years.) With respect to climate, too, we are in the same predicament; for, although two of the patients were Englishmen, and one a native, they were all residing at the time in the tropics. Abuse of alcoholic liquors is, no doubt, a strong predisponent of these combinations; and, though there is no direct declaration about it from the first patient, yet, from his general habits, and the confessions of the other two, I am almost sure that all three were equally given to this pernicious practice. A curious fact, deserving our attention, is the coincidence of these three cases occurring in one month, (July 5th, 18th, and 24th,) in the middle of the rains. The duration in the first case was twenty-three days, in the second seventeen days, and in the third twelve days.

The course, terminations, and treatment of these cases have been fully related in their description given above. After the diagnosis has been carefully formed, remedies must be employed according to their known therapeutical properties, suiting the circumstances of these combinations, bearing always in mind, that the time for active interference would be very materially abridged should the hepatic congestion, which is the immediate cause of jaundice, pass on to inflammation and suppuration. Bleeding, both general and local, timely performed, is of the greatest efficacy, as was proved by our first case, in which there was a state of intense vascular congestion throughout the body, evidently from the pressure of the pericardial effusion, so much so as to suppress the urine, etc., all which gave way to a single depletion. After this, repeated blisters, purgatives, diaphoretics and alteratives, and mercury with opium, if not contra-indicated, are productive, as in these three cases, of great benefit. When the immediate danger is over, a mild mercurial—blue pill, or hydrarg. c. cretâ, with taraxacum and opium, or hyoscyamus—will be found to be a proper and eligible combination. Whenever the smallest sign of suppuration shows itself, the use of mercury must be instantly desisted from, and the treatment should consist then in the employment of tonics, purgatives, sudorifics, diuretics, and counter-irritants. Sometimes diarrhœa ensues in the course of these cases; this must not be hastily checked, for it may be a critical discharge. But if it should become dysenteric, as was the case in our first patient, no time must be lost in arresting its progress before the mucous membrane of the large intestine has been irretrievably disorganised, because it often happens that the violence of the inflammation in this structure is so great, that it involves the entire of the large bowel, and ends in its mortification or complete dissolution. If the strength of the patient will bear it, full doses of an opiate may be given, in conjunction with blue pill and ipecacuanha; but, if he is weak, or becomes so in the course of these maladies, more reliance must be placed upon large doses of opium, alone, or mixed with astringents, such as sugar of lead, gallic acid, chalk mixture, chalk powder, kino, catechu, etc., and, if need be, extract of gentian and ipecacuanha. Injury of the other organs—for instance, the brain, lungs, kidneys, etc.—must be provided against in the usual way; and the early application of a cold lotion, or a blister, or some leeches or cupping, as in our first case, will generally obviate the necessity of using more powerful remedies.

In conclusion, it remains for me to draw attention to the extreme novelty, if not the rarity, of such cases. It would be unprofitable labour to search for them in the Grecian, Roman, Egyptian, or Arabian records of medicine; for, although we shall not fail to find there mention of jaundice, yet, with respect to pericarditis, we can expect to derive little information from them. Coming down to our own time, I find it stated, in the third volume of the "Library of Medicine," article "Pericarditis," head "Complications," that M. Louis supposes, that inflammation of the peritoneum, liver, and other abdominal organs, is among the occasional accompaniments of pericarditis. But the above three cases were the first of the kind that have occurred in my experience; and as, in a climate like that of India, jaundice is an affection of almost daily occurrence, I trust the information conveyed in this communication will not be unacceptable to at least those of my Profession who are preparing to practise their calling in this country.

A CASE OF CONGENITAL ABSENCE OF THE RECTUM.

By R. MASON, Esq., M.R.C.S.
Late House-Surgeon at St. Bartholomew's Hospital.

The subject of the present case was a male infant, born on July 22nd, 1852, apparently a well-formed and properly developed child. On the afternoon of the following day, it was noticed by the nurse that the child had passed nothing by the rectum, although the urine had come away freely. The child was also noticed to scream from time to time without any apparent cause, and was restless, refusing to take the breast; it also occasionally vomited greenish-looking matter. When first seen on the morning of July 21th, there was great distension of the abdomen, with tenderness on pressure; the vomiting had also become more frequent. Impressed by these symptoms with the idea that some intestinal obstruction existed, and considering, from the age of the patient, that it was in all probability at the rectal extremity of the intestinal tube, an examination was directed to that part, when the anal orifice appeared perfectly natural in size and situation, the external generative organs being also fully developed; the finger was now oiled and passed gently into the gut, with a view of detecting the cause of the obstruction, when it was found that there was a cavity around which the finger could be passed with perfect freedom. The finger could also be pushed upwards to the extent of nearly its length, when the point of it met with a kind of cul de sac termination of the intestinal canal. The bladder could be felt in front of the finger, and the hollow of the sacrum behind. It was now pretty evident that either the rectum was wholly or partially absent, (obstructed?) and under these circumstances, it was deemed necessary to attempt an operation for the relief of the patient, in order to afford means for the exit of the meconium, the accumulated presence of which was now beginning seriously to increase the already formidable symptoms. In considering the operation most suitable for the case, the preference was given to that mode which consists in introducing a trochar and canula through the anal orifice, and puncturing the blind termination of the gut, keeping the instrument in the normal course of the fully-developed intestine. The fore-finger of the left hand was introduced so far as to detect an obscure sense of fluctuation, and on it the trochar and canula was now made to enter at that point, and on withdrawing the instrument, a large quantity of meconium escaped, and continued to do so for some time. The child was placed in bed, and a teaspoonful of castor oil administered.

After the operation, the meconium continued to escape freely by the wound; but the distension of the abdomen did not seem to subside, as might have been expected. The child manifested no inclination for the breast or any other nourishment; and to be brief, gradually sank twenty-four hours after the operation had been performed. On inspecting the abdominal cavity after death the appearance of the contained viscera was quite normal, no inflammation of the peritonæum being present. The intestinal canal was everywhere distended and slightly vascular, and on more more particularly directing attention to the course of the lower portion of the tube, the colon was found to terminate in a cul de sac. About the left sacro-iliac symphisis the rectum appearing to be entirely wanting. The puncture was evident that had been made by the trochar, but had considerably collapsed. With the exception of this deformity, the body presented the aspect of a full grown healthy male infant.

Cases of this rare deformity are of sufficient interest to warrant their publication — physiologically as exhibiting arrest of fœtal development, surgically in the means to be adopted for affording the best kind of relief. The imperfections met with in this part of the alimentary canal have been generally classed under five heads:—1. Simple imperforation of the anus. Atresia ani, which is, perhaps, the most common form met with, and the one most amenable to treatment. 2. Imperforation of the rectum. 3. Unnatural termination of the rectum. 4. Termination of other organs into the rectum; and 5thly. Complete absence of the intestine, as exemplified in the present instance.

CASE OF TUBULAR INFLAMMATION OF KIDNEY; SUPPRESSION OF URINE, WITH INCIPIENT COMA.—RECOVERY.

By CHARLES J. MILL, Surgeon.

On the 11th of March, 1853, I was called to visit David ——, aged 8 years, well grown, and hitherto healthy. I found he had been unwell for several weeks previously, and now presented the following symptoms:—Face pale and swollen; foul tongue; fetid breath; utter want of appetite; pain in right side, over liver; difficulty of breathing; abdomen much enlarged, evidently from effusion into the peritoneal cavity; urine scanty, and very high coloured; bowels costive; skin hot and dry, and pulse quick. Thinking the liver to be the organ chiefly at fault, I ordered counter-irritation over it,—the compound squill pill, and a mixture of acetate of potass and ether. On the 16th, he began to complain of severe headache. The urine was now so very remarkable in colour as to make me suspect the state of the kidneys. On examining it, I found numerous flakes of detached epithelial membrane floating in it. A dark red sediment, evidently from escape of some of the colouring matter of blood, along with its serum. On applying heat and nitric acid, it was highly albuminous. I immediately had the loins freely leeched, followed by counter-irritation and free purgation.

On the 17th, he was in a state of incipient coma, roused with difficulty only for a moment. Believing this symptom arose from the brain being secondarily affected from the non-excretion of urea, in addition to continuance of former treatment, I gave 10 drops of vinum colchici every two hours, along with 15 of sp. eth. nit,—knowing that colchicum has a powerful effect in increasing the excretion of urea and urinary salts; also having lately read a paper by Dr. M'Lagan, Edinburgh, recommending its use in such cases.

18th.—Oppression of brain decidedly relieved. Continue.

19th.—Comatose symptoms quite gone; abdominal effusion much lessened. My patient now continued steadily to improve; urine became pale and more copious; continued albuminous for nearly two months; and, from the persistence of this last symptom, I began to fear Bright's disease had begun.

Now, however, (May 1,) under the use of the iodide of iron and quinine, as a tonic, occasional warm baths, and abstinence from animal food, my patient has got quite free of all his complaints,—urine healthy in its quantity and quality, dropsical effusion quite gone, and appetite and strength returned. I may mention, that, during recovery, a large abscess formed below the chin, which, I have no doubt, (being a believer in the humoral pathology,) expedited the cure.

The case is interesting, as showing the value of colchicum, in frequently-repeated doses, in cases of suppression of the urinary secretion; likewise showing the length of time that the secreting organs of the kidney may give evidence of disease, and yet ultimately be restored to health.

In another case of congested kidney, I used the colchicum along with depletory treatment, to prevent, if possible, comatose symptoms, and with complete success.

Kerriemuir.

Health of the Army at the Cape.—At no former period has the army been so healthy. In Malta, Gibraltar, the Ionian Islands, and the Mediterranean, the mortality had been 17 and 7-10ths in the 1000 for the average of 30 years previous to 1846, but last year it was 12 and 7-10ths. In the American colonies the mortality in Bermuda had been 14 in the 1000, the average of the previous years being 15 in the 1000, and 14 being as high a state of health as in Great Britain. In the Cape of Good Hope the mortality had been, exclusive of the war, 24 in the 1000—a much lower rate than that of the French army in Algeria. In New Zealand the rate had been 12, Van Diemen's Land 9, and New South Wales 6, in the 1000. In the West India Islands (exclusive of Jamaica) it was 22. In Jamaica it was 44. The yellow fever had broken out at Barbadoes, and made great ravages; but, contrary to every precedent, it had raged more among the civilians than the army, and more among the officers than the privates. The whole mortality, however, had not reached 6 per cent. At Hong-Kong, the most unhealthy of all the stations, there was also a diminution.

THE LONDON PRACTICE OF MEDICINE AND SURGERY.

UNIVERSITY COLLEGE HOSPITAL.

PARTIAL DISLOCATION OF THE FOURTH OR FIFTH CERVICAL VERTEBRA.—REDUCTION.—RECOVERY.

[Under the care of Mr. STATHAM.]

Our readers may perhaps remember, that some months ago we gave the particulars of several cases of severe injury to the vertebral column, and among them of one in which a displacement had occurred in the cervical region without fracture, from the laceration of the intervertebral substance. (*Vide Medical Times and Gazette*, for Nov. 20, 1852, p. 514.) The case which we have now to record is an example of a yet rarer lesion, and acquires great additional interest from the fact of the recovery of the patient. Before proceeding with it, we must acknowledge our obligation to Mr. Statham for the particulars concerning it, as well as for the subsequent remarks. J. M., a man aged 45, applied at the out-patients' room of University College Hospital, complaining of pain and difficulty in moving the head. During the previous night, about two a.m., he had fallen down stairs in the dark, a height of, probably, twenty feet in all, alighting on his head, and since that time his condition had been as at present. The head pokes forward from the body, its right side being lower than the left. The patient has great difficulty in accomplishing a nodding motion, and is quite unable to rotate his head; he complains of pain in the right side of the neck, about the position of the transverse process of the fourth or fifth cervical vertebra. There does not appear to be anything unusual in the direction of the spinous processes; the head may be made to rotate to the left shoulder as naturally, but only to a small extent towards the right. With the assistance of Dr. Burder, the house-surgeon, Mr. Statham at once proceeded to attempt reduction, which was accomplished in the following manner:—The shoulders having been fixed, the head was grasped, and the neck extended, while, at the same time, rotation was accomplished alternately to the left and right sides. After about three efforts, at each of which a loud jerk, as of the friction of bone on bone, was perceived, it was found that the face could be turned over the right shoulder in a natural manner. Although rotation of the head towards either side could now be effected manually to a normal extent, yet the patient experienced great difficulty in accomplishing the same movements for himself; nodding had, however, become quite easy to him, and he expressed himself as feeling that he "had been set straight," an expression which his improved appearance seemed to fully warrant. Neither before, nor during reduction, had motion or sensation in the trunk or extremities been in any way interfered with; and for fear of producing any effect of this kind, Mr. Statham had been particularly careful to make his application of force moderate and steady.

The man having been admitted as an in-patient, twenty leeches were directed to be applied to the neck, and on the following day, at Mr. Quain's suggestion, a stiff collar was employed. No symptoms of an alarming character occurred during the convalescence. A few days after the reduction there was heard, on rotating the head, an obscure crepitation sound, which, from its characters, Mr. Statham believed to be due, either to the presence of fluid, or to the friction of the torn ligamentous substances. The man recovered favourably, and was discharged in perfect health after a short time.

Remarks.—The fixed and unnatural position of the head, the completeness of the restoration of its ordinary functions after replacement had been effected, and the then entire cessation of all signs of malposition, appear to show, that the lesion sustained had been a partial dislocation of the lateral articular surface of one of the vertebræ,—most probably the fourth or fifth. It is impossible to say, whether or no a fracture was present also; but if it were, it must have been of secondary importance to the displacement. That the latter should have occurred on one side only may be explained by supposing, that a degree of yielding, corresponding in extent, had, on the opposite side, been distributed among the articular surfaces of many vertebræ, without, in any single one, amounting to a dislocation. It must be noticed, that the movements between the first and second vertebræ had been perfect throughout. The alteration in the relative position of the spinous process, which must have existed, was probably overlooked, on account of the dislocation being only partial, and the neck of the patient short and moderately thick. The above diagnosis of the nature of the injury is sustained by reference to a somewhat similar case which occurred in the practice of Dr. Schrauth, and is recorded in the seventh volume of "Rankin's Abstract of the Medical Sciences," p. 116. In this case, an almost complete luxation forwards of the right transverse apophysis of the fourth cervical vertebra was successfully reduced on the seventh day after the accident which had occasioned it.

We cannot leave the subject of injuries to the vertebræ without mentioning the case of a man who has just left one of Mr. Stanley's wards in St. Bartholomew's Hospital, in which there is every reason to believe that recovery has resulted after fracture, with considerable displacement of two or more of those bones.

ST. BARTHOLOMEW'S HOSPITAL.

PROBABLE FRACTURE WITH DISPLACEMENT OF THE TENTH AND ELEVENTH DORSAL VERTEBRÆ.—RECOVERY.

[Under the care of Mr. STANLEY.]

Robert Marshall, aged 32, a tall, thin man, was admitted at half-past five in the afternoon of February 5. About an hour previously, while walking in the street, he had been knocked down by a bale of wool, weighing about two hundred weight, which had accidentally fallen from a warehouse on the third story. He was in an almost upright position when struck over the head and back of neck, and was thrown forwards with great violence. The bystanders who came to his assistance having lifted up the bale, found him bent forward, with his head between his knees, and quite insensible. After the lapse of a short time, however, consciousness returned, and when carried into the hospital, he was perfectly aware of all that was going forward. On admission, he could move his legs, and also feel, to a certain extent, but complained much of a sensation of numbness and tingling in them. There was considerable tenderness over the abdomen. All attempts at examination of the injured region were carefully avoided; and, the man having been gently lifted into bed, he was laid flat on his back, and a large poultice applied over the abdomen.

On the following day, it was noticed, that, although the motor and sensory functions were almost perfect in the lower extremities, yet, over the buttocks and upper part of the thighs, there was complete anæsthesia. The sharpest pinching possible over these regions was borne without the slightest indication of its being perceived. During the first two days, there was complete retention of urine, and the catheter had to be employed. The bowels, also, were very costive, and only excited to act by severe opening medicine, when the motions passed involuntarily. The man had no headache whatever, but, on account of pain in the legs and back, he slept very badly for some weeks. At the expiration of a month, sensation began to return in the buttocks and thighs, and, after another week, he had so far recovered, as to be able to move himself in bed, and sit up for short periods. Previous to this, he had not been allowed to subject himself to any kind of movement, and his bed had not once been made. On carefully examining the back, five weeks after the accident, it was discovered that there was some degree of posterior curvature in the lower dorsal region, and that the spinous processes of the tenth and eleventh dorsal vertebræ were missing from their due position, where a decided hollow existed. A prominence of bone could, however, be distinctly felt, about an inch to the left of the middle line, and, on the opposite side of the spine, about an inch lower down, was another prominence, which had no corresponding part either above or below it. There was a slight diffused tenderness about the part; but pressure over the centre, exactly where the spinous processes were deficient, gave acute pain, and the patient shrank away instinctively as if the cord itself had been pressed. It seemed thus pretty certain, that not only had the laminæ of the vertebræ suffered fracture, but that considerable displacement had resulted. Mr. Stanley took occasion to comment on the extremely satisfactory progress which the patient had made, expressing his conviction that such cases were much better left to nature, the patient being kept quiet on his back, than interfered with in order to make out an accurate diagnosis. Of what use could it have been to have known of the existence of fracture at first, since the treatment would still have been precisely the same; while there could be little doubt but that the manipulations necessary to the obtaining of exact knowledge would have risked the infliction of further injury to the cord and its tunics.

The man was directed still to confine himself to the recumbent posture almost entirely, though allowed occasionally to sit up. He continued to gain strength in his lower extremities, and gradually lost the degree of tenderness and discomfort which he had previously felt in his back. Sensation in the buttocks was by degrees completely restored.

Having for some weeks been in the habit of walking about the

ward, and also out of doors, without any inconvenience, he was allowed to return home in the beginning of May, Mr. Stanley cautioning him to be extremely careful not to expose himself to injury or any undue excitement.

Apart from the fact of recovery, after so severe an injury, the following features in the above case appear to deserve especial notice:—

1. The slight and transient degree in which, despite the fracture and displacement of the vertebræ, the nervous functions of the lower extremities, and also of the pelvic viscera, were interfered with; thus seeming to show, that no great injury to the structure of the cord itself had resulted.

2. The complete anæsthesia of the integument covering the buttocks and upper parts of the thighs. From the fact of the non-implication of other parts, this probably was due rather to injury to the trunks of the nerves supplying those regions, either by laceration, stretching, or compression by effused blood, than to any affection of the spinal centre itself.

3. The nature of the accident; the fracture having resulted from extreme and sudden bending forwards of the spine, attended probably with some degree of wrenching to one or the other side. As compared with direct violence, this kind of injury was doubtless much the more likely to produce fracture of the laminæ, without contusion or laceration of the cord.

To continue the subject of injuries to the spine, the case of which we have next to speak is interesting, as showing the non-necessity for active measures in the treatment of some cases in which loss of function in certain nerves or nervous centres has resulted from concussion; and the one which follows it appears to carry the same teaching yet further.

THE LONDON HOSPITAL.

PARAPLEGIA FROM CONCUSSION.—EXPECTANT TREATMENT.—COMPLETE RECOVERY.

[Under the care of Mr. CURLING.]

From the notes taken by Mr. Brownfield, the dresser of the patient, we learn that Matthew Williams, aged 2 years, a healthy-looking boy of very fair complexion, was admitted on January 31, 1853, labouring under complete loss of motor power in the lower extremities, sensation also being very imperfect. The reflex function appeared to be uninterfered with, and he was able to retain his urine and fæces, and to pass them voluntarily. The affection involved, also, in some degree, the hands and arms, in which sensation was perfect, but the power of motion very slight. His mother stated, that, two days previous to admission, he had fallen backwards on some stone steps; and that after the accident, although he had complained of much pain, yet he was able to stand and walk about. Two days afterwards, however, she observed, that when he attempted to lift his hand to his mouth it fell back, and that he appeared to have very imperfect control over it. On setting him on his feet, she found that he could not stand or move his legs in any way.

Mr. Curling directed that he should be kept quiet in bed, laid on his back, to which warm fomentations were to be kept constantly applied. Milk diet. As the bowels were acting freely, there did not appear any indication for purgative treatment.

On the fourth day after admission, the tenderness about the spine, which had not from the first been more than the bruise fully accounted for, had quite disappeared, and the child had a slight amount of power of motion in his upper extremities; the legs, however, remained just as before. Such satisfactory indications of improvement being manifested, Mr. Curling did not deem it advisable to make any alteration in the treatment. The paralysis of the lower half of the body continued almost complete until the tenth or twelfth day, after which the improvement was steadily progressive; and before the extirpation of a month, the boy was able to walk well, had regained the complete use of his upper extremities, and had perfect sensation in every part. He was shortly afterwards discharged in all respects quite well.

PTOSIS AND IMPAIRMENT OF THE MOVEMENTS OF THE EYEBALL FROM CONCUSSION.—RECOVERY.

[Under the care of Mr. WORDSWORTH.]

Thomas Sparkes, aged 48, a tailor, of not very robust habit of body. On December 7, while driving a gig, he ran against another vehicle, and, the shafts breaking, he was thrown violently forwards, but, being kept in his seat by the gig-apron, *did not receive any blow*. He got out without assistance, and disentangled his horse, and afterwards, feeling very giddy, he drank a small quantity of brandy. Having returned home, he was rather sick, and felt to have sustained a considerable shock. In the course of the evening, he noticed, for the first time, that he could not lift the right upper eyelid. On the following day, he applied to Mr. Wordsworth, who advised him to become an in-patient; and he was accordingly admitted under Mr. Curling's care. He had then complete ptosis of the right eye, the lid half concealing the front of the cornea. Vision was perfect, and the pupils of natural size; the right, however, was quite motionless under the stimulus of light; and he had also great difficulty in turning the eye in any direction except outwards. The whole of the muscles supplied by the third nerve appeared to have been paralysed. He was quite certain that all this resulted from a mere shake,—no blow of any kind had been inflicted.

The question naturally arose, what pathological change had resulted, by which the phenomena might be explained? Mr. Curling and Mr. Wordsworth agreed in thinking it most probable, that an extravasation of a small quantity of blood had taken place into some part of the track of the third nerve. There were no symptoms indicative of injury to the brain itself; he had no headache, or pain in any part; the senses were perfect; pulse soft, and of moderate frequency. He was very nervous, and on one occasion fainted while being questioned. In the hope of securing the removal of the effusion before any incurable disorganisation of the nerve structure should have taken place, it was decided to put him under the influence of a mild course of mercury.

℞ Hydrarg. chlor. gr. i., n. et m. Broth diet, empl. lytt. noneaur.

He remained in the hospital about a fortnight, during which time his gums became slightly sore, on which the pills were suspended. No improvement whatever had taken place; and, as he was anxious to return home, he was made an out-patient, under the charge of Mr. Wordsworth. After a short time, the mercurial treatment was again resorted to, and a mild action kept up for some weeks, during which not the least improvement was apparent.

In the beginning of February, Mr. Wordsworth determined to change the plan, and to allow a full diet, with tonics. A draught, containing one grain of quinine was ordered to be taken three times daily.

At his next visit, the man expressed himself as feeling much better, and he had more power over the lid. The improvement was afterwards rapid; and, in about a month, the cure might be said to be complete.

May 12.—The patient came to the hospital to show himself to Mr. Wordsworth. The right pupil is much smaller than the other, and almost motionless. He can see well, but better with the left than right. He is in good health, and has perfect power over the lid.

It must be remarked in this case, as an interesting point, that the injury was a mere shake, no blow of any kind having been inflicted. Perhaps the most probable theory as to the precise cause of the symptoms, and the one, we believe, Mr. Wordsworth inclines to adopt, is, that a slight extravasation of blood had resulted, either into the trunk of the third nerve, or by its side, or into the part of the brain from which it originates.

KING'S COLLEGE HOSPITAL.

PUNCTURED WOUND OF THE CHEST—RECOVERY.

[Under the care of Mr. PARTRIDGE.]

At two o'clock on the morning of Sunday, Jan. 30, 1853, Sarah Fitzgerald, aged 28, a married Irish woman, was brought into the hospital, suffering from the effects of a punctured wound of the chest which she had just received. It appeared, that in a domestic quarrel, her husband had struck her with a gimlet in two places. The only wound of importance, however, passed through the lower part of the left breast, a little below the nipple, and entered the cavity of the thorax. According to the account of her friends she had already lost a good deal of blood, and this statement accorded with her symptoms, for she was pale and blanched, the pulse being scarcely perceptible. The hæmorrhage had, however, all but ceased, a small gush each time she coughed, being all that continued. The integuments, for about the extent of the palm of the hand around the wound, were puffy and emphysematous. Mr. Lawson, the house-surgeon, made a stethoscopic examination of the chest, and detected the normal respiratory sounds above the level of the wound; below which, however, they were not recognisable; percussion also elicited a dull sound below, whilst it was perfectly clear above. The breathing was quick and hurried, and the wounded side did not appear to expand so freely as the other. No blood had been expectorated. A compress of lint, confined by a bandage, was laid over the wound, and the patient placed in bed on the injured side. A draught, containing tinct. opii ♏. xx., and

sp. æth. sulph. co. ʒj., was ordered to be taken immediately, and half the quantity repeated every four hours.

At noon she was still very much depressed; but as she complained of severe pain in the side, the stimulant was omitted, and in its stead a saline draught, with one grain of crude opium, directed to be administered every three hours.

January 31.—Mr. Partridge saw her at noon. In spite of the opium she had passed but a restless night; the pulse was small, 136; tongue dry. There was a short teazing cough, and a small quantity of blood had been expectorated. Mr. Partridge ordered venesection to be practised, stating, that he founded his treatment not so much on the necessity of arresting internal hæmorrhage, of the continuance of which no evidence existed, as on the desirableness, by decreasing the quantity of the circulating fluid, of affording relief to the oppressed respiration. Mr. Lawson, the house-surgeon, carefully watched the effect of the bleeding, which was stopped as soon as indications of fainting came on, which was the case when sixteen ounces had been taken. A most marked improvement in the patient's breathing followed the measure; her pulse became fuller and rather slower. The opium and saline were ordered to be continued, together with inhalations of the vapour of turpentine, the latter remedy having been suggested by Dr. Budd, with a view to arrest the expectoration of blood.

February 1.—She has slept better, and no blood has been coughed up since last evening; the tongue, though furred, is moist, and the pulse is not now more than 110 in frequency; breath-sounds may be heard over the entire lung. From this date the woman improved rapidly, and without a single untoward symptom. Her pain in the side quite disappeared, and repeated examinations made it certain that the whole lung had resumed its function. At her own urgent wish she was discharged on February 5th, one week after the accident.

Mr. Partridge, in some clinical observations on the above, mentioned an instructive case which had occurred to himself some time previously, and which illustrated the suspicion with which the continuance of the symptoms of severe depression after wounds of the chest should be viewed, even when no external hæmorrhage is still taking place. A man was admitted with a compound fracture of the arm, so bad that amputation was necessary. He complained of no other injury until after the operation, when he called attention to a pain in his side, to relieve which a bandage was applied. In a short time, however, his face became blanched, pulse feeble, and respiration hurried. He got gradually weaker, sank, and died. After death a rib was found fractured, and the intercostal artery torn. The fatal termination had been induced by the extravasation of an enormous quantity of blood into the pleural cavity.

GUY'S HOSPITAL.

PUNCTURED WOUND OF THE ABDOMEN.—PROFUSE ARTERIAL HÆMORRHAGE.—SUBSEQUENT PERITONITIS.—RECOVERY.

[Under the care of Mr. HILTON.]

Louisa Crawley, aged 24, received, during a quarrel, on the night of Sunday, the 14th of November, a severe stab in the abdomen from a common table-knife. A very profuse hæmorrhage of red blood immediately resulted, which ceased only on the supervention of syncope. A surgeon was called in, who applied a compress to the wound, and ordered her to be at once taken to the Hospital. On admission, about half an hour after the occurrence, she was in a state of great collapse, the pulse being scarcely perceptible, the skin cold, and the face of a ghastly pallor. She still, however, retained some consciousness, and there appeared reason to think that she was partly under the influence of liquor. Near the anterior superior spinous process of the ilium, on the left side, was found a large incised wound, extending from before backwards. No evidence was offered by the escape either of gas or fæces, of injury to the intestines, nor was there present any degree of the acute pain which usually attends internal hæmorrhage. From the situation of the wound, it appeared probable that the circumflex ilii artery had been cut through; but it was deemed prudent not to disturb the clots which had formed by any further examination. Except the application of heat to the general surface, no treatment was adopted. Soon after being got to bed she rallied, and the bleeding did not recur.

On the morning of the 15th, she had passed a restless night, and complained much of giddiness in the head and great thirst. Her countenance was pale and blanched; pulse 90, small and weak. In the afternoon the countenance had become anxious, there was slight nausea, much throbbing pain about the wound, and tenderness of the whole abdomen, especially about the left iliac and lumbar regions. Pulse 90, hard and wiry. Mr. Hilton saw her, directed the avoidance of all purgatives, and ordered twenty leeches to the tender part of the abdomen, poppy fomentations, and a pill containing hydr. chlor. gr. ij., pulv. opii gr. ss., to be taken every three hours, and only milk food.

16th.—Has slept but little. The tenderness, which was nearly confined to the left side, has extended to the umbilical region. Tongue dry; pulse small and wiry. The patient lies on her back with the knees drawn up. Rep. pil. Hirud. viij. to the umbilical region. Milk diet to be continued, as also the fomentations.

17th.—The tenderness is somewhat relieved, but she has passed a very bad, restless night. The gums being sore, the mercury is ordered to be discontinued.

19th.—Has slept well the last two nights, and is much improving. Tenderness decreased; pulse softer and fuller. Tongue moist. Beef-tea as well as the milk.

20th.—The bowels acted to-day for the first time since admission, without the aid of purgative medicine. The wound is healing, and looks healthy.

Dec. 1.—Discharged, the wound being quite healed; bowels acting regularly, and all tenderness having disappeared.

We are indebted to Mr. Brookes, one of Mr. Hilton's dressers, for the above particulars. As an illustration of the inefficiency of blood-letting, even when carried to an extreme extent, in *preventing* inflammation, the case is instructive, but yet more so as an example of the almost spontaneous cessation of an alarmingly profuse arterial hæmorrhage. This cessation, its permanency, and the ultimate recovery of the patient, make it almost certain that no very large trunk had been wounded. Another case in proof of the fact, that hæmorrhage of the most fearful character may result from a wound of but a small artery, has occurred during the last fortnight in a patient under the care of Mr. Lawrence, in St. Bartholomew's Hospital. A rather stout man was admitted on account of a stab in the left iliac region of the abdomen. The bleeding had been so enormous, that, although not then continuing, it appeared probable that any recurrence of it must prove at once fatal. Under these circumstances, Mr. Lawrence, with the concurrence of his colleagues, determined, if possible, to place a ligature on the wounded vessel. During the operation, the exact part whence the bleeding had proceeded did not become apparent; and as pulsation was not perceptible in the femoral, it was deemed safest to tie the iliac artery. The case terminating fatally, (in all probability from the extreme loss of blood before the operation,) it was found at the autopsy, that the circumflex ilii artery was the only vessel of recognisable size which had been injured.

LIST OF SCIENTIFIC MEETINGS.

This Evening,	June 4.	Royal Institution.—*Subject:*—"On Air and Water." By Dr. John Tyndall. Three o'Clock.
——	——	Medical Society of London.—Eight o'Clock.
Monday,	June 6.	Royal Institution.—*General Monthly Meeting.* Two o'Clock.
——	——	Epidemiological Society.—*Subject:*—"Sketch of the most Striking Results of Quarantine in British Ports, since the Beginning of the Present Century." By Dr. Milroy. Half-past Eight o'Clock.
Thursday,	June 9.	Royal Institution.—*Subject:*—"On Technological Chemistry." By Dr. E. Frankland. Three o'Clock.
Friday,	June 10.	Royal Institution.—*Subject:*—"On Oxygen." By Professors Faraday, Boussingault, Fremy, Becquerel, and Others. Half-past Eight o'Clock.
Saturday,	June 11.	Royal Institution.—*Subject:*—"On Air and Water." By Dr. J. Tyndall. Three o'Clock.

* Medical Benevolent College.—At a meeting of the Council, held in the Hanover-square Rooms on the 31st ult., the President, the Earl Manvers in the chair, a Committee was appointed to make the necessary arrangements for receiving H.R.H. Prince Albert on the occasion of His Royal Highness laying the foundation-stone of this national Institution. Thanks having been unanimously voted to the Lord Bishop of Oxford for His Lordship's effective sermon on the 8th ult., in behalf of the College, His Lordship was elected a Vice-President, as was also Sir James Clark, Bart., M.D. Thanks were then voted to the Rev. Edward Scobell for granting the use of his pulpit to the Bishop of Oxford, for which service that gentleman was nominated a Life Governor of the College.

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Medical Times & Gazette.

SATURDAY, JUNE 4.

MEDICAL EDUCATION.

ALTHOUGH Medical Reform has, from year to year, occupied the attention of the Profession, very little discussion has taken place, and very little good has been effected, in the important subject of Medical Education. Yet, as the boy is father to the man, so is the medical student the material out of which the future practitioner is to be developed; and we cannot but feel surprised that, whatever isolated attempts may have been made to improve the condition, no vigorous and concentrated effort has ever been made to improve the education, of our students. The youth is entered to a Metropolitan School, he is duly introduced to the lecture-room, the dissecting-room, and the hospital, but very little effort is afterwards made by his teachers to ascertain to what amount he has availed himself of the instructions offered him. It is true, that the most industrious and promising students often attract the notice, and receive the encouragement, of the teachers, because they are supposed likely to reflect credit upon the school; but hardly any attempt is made to rouse the idle, to fix the wavering, to strengthen the weak, or to cheer the timid.

In making these remarks, we by no means wish to reflect indiscriminate censure upon all our Metropolitan schools. We know, that in some the most laborious exertions are made to do full and ample justice to all the students who are entered; but we affirm, that our observations are fully justified by the condition of a large number of our London students.

Now, we will contrast the career of two students in their attendance on lectures and hospital practice, as types of the class to which each respectively belongs.

The first comes to his hospital studies provided with an adequate amount of preliminary general and medical knowledge; he attends diligently the lectures of the different teachers; and, by the termination of his first session, he has made himself fairly, or perhaps fully, acquainted with the facts of anatomy, physiology, chemistry, botany, and materia medica. In the ensuing session, he commences with advantage the lectures on the principles and practice of physic and surgery, and derives benefit from attendance in the wards of the hospital, where he associates in his mind the lesions of structure and function which he observes, with the principles of anatomy and physiology which he has already acquired. Thus he goes on to the end of his hospital studies, when he presents himself to the Licensing Board, passes the examinations with facility, and enters into practice, fully prepared to combat the manifold forms of disease which he will be called upon to encounter.

The second comes to the Medical School with hardly any knowledge of any kind; but he pays the fees, and begins to attend lectures; he finds it difficult to understand the doctrines brought forward by his teachers, owing, perhaps, to his ignorance of the languages in which the technicalities of science are usually expressed. The consequence is, that, after a few days, the lectures become wearisome to him, and he gradually begins to neglect them, or, if he continue to attend, he is present only in the body, and not in mind, and he merely endures the lectures as a necessary drudgery which his friends have imposed upon him. Nevertheless, he obtains his certificates at the end of the session, and congratulates himself that he has done all that has been required of him. The next session he commences attendance on the hospital, and hears lectures on the principles and practice of physic; but, as he knows nothing of anatomy or physiology, he is unable to comprehend the reasonings of the lecturers, and the second year's lectures become as wearisome and as useless as those of the first; and, if he attend the hospital at all, it is only for the purpose of witnessing some striking operation, the steps of which, however, he cannot comprehend, owing to his want of acquaintance with anatomy. However, thus he goes on to the end of his career; the lecturers, observing that he is an idle fellow, or, perhaps, never observing him at all, pay no attention to his progress, but, pursuing the *laisser aller* system, allow him to go on in his own course; and it is very probable, that the attractions of the casino, the public-house, or the cigar-divan, far outweigh those of the hospital, the library, and the lecture-room.

But the time comes when he must pass his examination. The *governor* (as the victimised parent is playfully denominated) thinks that the young gentleman, having now spent three years and a large sum of money upon his studies, ought to be qualified to enter upon practice. The latter, therefore, having the fear of the Hall and College before his eyes, and knowing that he has wasted his time, repairs to a grinder, who takes him in hand, communicates to him a considerable amount of knowledge in a condensed form, and sends him up for examination. Perhaps the tyro squeezes through the ordeal,—perhaps he is plucked: in the first case he enters only half qualified upon the sacred duties of medical practice; in the second place, his failure inflicts mortification upon his domestic circle.

We ask any of our readers whether we have overcharged the above picture, and whether the sketch we have now imperfectly drawn is not the history of too many of our Metropolitan students. That this defective state of things is, in great measure, due to the fault of the student himself, and springs from the natural waywardness of youth, must at once be admitted; but it may fairly be a matter of question whether an improved system of education and of examination might not work a beneficial change in the condition and the prospects of many weak and thoughtless young men, whose faults are rather those of the head than of the heart, and who, by judicious training, might be brought to save much present inconvenience and expense to their parents, and much future misery and disappointment to themselves.

DISMISSAL OF A NAVAL SURGEON FROM THE SERVICE.

WE would not be thought lax in our ideas of the just discipline necessary in both the Naval and Military services of the country; and when that discipline is brought to bear justly on any member of our Profession who has been found guilty of contravening the laws of either of these important services, our columns shall never be the medium of screening the offender. But we trust ever to be found among the

sympathisers (where sympathy is really called for) of that ill-used class—the Naval Surgeons and Assistant-Surgeons; and we think, in the case we are about to relate, that sympathy will not be considered ill-placed.

A Court-Martial assembled on Wednesday week, to try Dr. James Falls Henry, Surgeon of H.M. sloop Star, on a charge of drunkenness. Three witnesses were called. The first witness deposed that he saw the prisoner drunk on the 19th inst., when the ship was at anchor at Spithead,—he thought so from the manner in which he spoke, and from his having staggered on the quarter-deck. The second witness judged he was drunk from his appearance; if he (witness) had required bleeding at the time, he would not have submitted to have been bled by him. The third said he was drunk, and making a great noise in the gun-room. Witness told him he was behaving like a madman, and advised him to go to his cabin. Thought him unfit to attend the sick. Such was the evidence for the prosecution.

We now beg the reader's attention to the cross-examination of the three witnesses for the prosecution, and also to the defence, and the evidence offered on the part of the prisoner. In the cross-examination it transpired,—(1st witness) that some friends had come on board on the day named, and had wine and biscuits. *Two bottles of champagne were drunk among eight persons.* There were no serious cases of sickness on board that required attention. (2nd witness)—had never seen prisoner on any occasion drunk before, and his conduct had always been that of an officer and a gentleman.

"At the lunch in the gun-room *two bottles of champagne were all that was drunk, and eight partook of it.* I know from previous observations, that a glass or two of champagne produces on persons of some constitutions just the effect you were labouring under. I think a small quantity of liquor would excite you very soon. I call three glasses a small quantity of wine."

"(3rd witness)—By the prisoner: I know you to be subject to fits of excitement very different from other persons. Did not see you drink anything on that day. I was told by Mr. Mason, that, previously to joining the ship, at times you were a 'little cracked,' from having worked too hard in the Mozambique and other tropical climates. From my knowledge of you, I believe the smallest quantity of champagne would excite you to an extent which would not affect a healthy person. I have always found that you conducted yourself as a gentleman when not in an excited state. By the Court: Had known prisoner since the 10th of April last. Had seen him excited when he had had nothing to drink."

Mr. Henry, after the cross-examination, entered on his defence, by his friend Mr. Little, Solicitor, who read a document,

"In which the prisoner greatly regretted having to appear before the Court to answer the charge which had been preferred against him, but did not wish in any way to cast any imputation on the prosecutor in the case, (who was simply performing his duty in preferring the charge,) or the officers who had given evidence against him. He had been twelve years in Her Majesty's service, which time had been chiefly spent in China and the Mozambique, and during the whole of that period he had performed his duty as an officer and a gentleman. He was sorry to say, that during the time he was in the Mozambique sickness prevailed to a large extent, throwing additional duties on him. He was at this time afflicted with a fever, from the effects of which he never had, and he feared he never should, recover. There were on the sick list at the time seventy or eighty of the crew, and he had to attend to the whole of that number, and, while suffering greatly himself, he had performed his duty to his country by trying to preserve the lives of his fellow-shipmates. He assured the honourable Court, that *his health had become so impaired that he purposed, before this unfortunate transaction occurred, to have applied to be surveyed as to his fitness for service.* With regard to the charge which had been preferred against him, he would state to the Court, on his honour as a gentleman, what he drank on the 19th instant; in the morning, about eleven o'clock, he took one glass of ale, and, about half-past twelve, some friends of his, eight in number, came on board the ship, and two bottles of champagne were opened, of which *he took two glasses*, and no more. He was affected by the drink shortly after the ladies had left the ship, and while in this state, it seemed, he had occasioned some disturbance. He then, however, went to his cabin and laid down. Subsequently he was called to the quarter-deck by Mr. Parry. He washed himself, and in five minutes afterwards he was refreshed, and quite capable of performing his duty."

For the defence, three witnesses were called. They deposed that, shortly after Mr. Henry had retired to his cabin, he came on deck, and was then quite capable of doing his duty,—in fact, perfectly sober. The clerk of the ship said, he had known the prisoner ten years,—had reason to believe that his health and mind were affected;—had seen him under excitement when he had not taken anything;—had known the prisoner at times, when arguing any question, worked up to such a state of excitement, that a stranger might have considered him drunk. Mr. Power, Assistant-Surgeon, said, he had been a messmate of the prisoner; during seven months of that time he (prisoner) had been a teetotaller; he had seen symptoms of excitability that might have been considered the effects of drunkenness.

"Certificates from the following officers, under whom the prisoner had served, were then read, all of which gave him an excellent character for sobriety and attention to his duty:—P. Richards, H.M.S. Cornwallis; C. Rieketts, H.M.S. Helena; G. Goldsmith, H.M.S. Wellesley,—three certificates given at different periods. Also certificates from the surgeons of various ships in which the prisoner had done duty as an Assistant-Surgeon were placed before the Court, all of which stated, *that the prisoner had obeyed every order of the service, and that he was a sober officer, and well fitted for his Profession.*"

Now, under the painful circumstances brought out in evidence, what was the Verdict?—"That the prisoner be dismissed Her Majesty's Service,"—a verdict which (says the *Devonport Independent*) "was regarded with great surprise by those who had listened to the case." Mr. Henry was on his trial for drunkenness, and his sentence is *dismissal;*—the evidence went to show, that he was the subject of affliction, brought on by severe duties in his profession, and that a slight imprudence had developed a disease so contracted. He is dismissed for drunkenness,—his twelve years' hard service is ignored, and his peculiar idiosyncracy, acquired in that service, goes for nothing! He was only a *Surgeon* in the Navy.

Now, let us put, in contrast with this case, another. At a Court Martial assembled at Cawnpore, Feb. 24, Ensign Sandham was arraigned, for that he had cruelly beaten and broken the bone of a servant in his employ; had severely beaten another servant in the employ of a brother ensign, and that he had cruelly beaten, with his fist, with a stick, and by the discharge of earthen pellets from a bow, a cloth merchant! Being found guilty of the above charges—What, here, was the sentence? This—that "The name of Ensign Sandham is to be transposed in the list of Ensigns of the 11th Regiment of Native Infantry, and to stand next below that of Ensign C. Richards,"—the Commander-in-Chief observing, that "if he (Sandham) wishes to retain his commission in the service, he must learn, in future, to curb his temper, and to treat his fellow-creatures as men, and not as brutes." He was an *Ensign* in the Army.

We can conceive, that Mr. Henry would have been rejoiced to hear, in his case, something like the soothing

expressions uttered towards the brutal bone-breaking and thrashing Ensign. Putting the two cases together—we say that the several sentences are calculated to call down on the public service the odium of all right-thinking and humane men.

MEDICAL CHARITIES (IRELAND).
ONLY ONE STEP MORE.

While the complaints of the Medical Profession in Ireland are still loudly heard, we find that the system of aggression on their rights is being prosecuted as vigorously as ever. And thus, though by public advertisement large and even liberal salaries are offered to workhouse masters, clerks, and inferior officers, the scale of remuneration held out to medical men is shamefully small and inadequate. Moreover, the manner of advertising for medical officers is becoming still more insulting and derogatory to the honour of the Profession.

In an Irish advertisement of last week we find the following:—

"Lisnaskea Union.—Maguire's-Bridge Dispensary District.—Tenders will be received from properly-qualified men to undertake the duties of this dispensary district, at a salary of 50*l*. per annum."

To say nothing of the wretched salary, which contrasts so miserably with the 100*l*. per annum (exclusive of board and lodging) offered to a workhouse master, in an adjoining column, or the 130*l*. per annum offered to a Union clerk, we must say, we have never seen a more insolent production in the shape of an advertisement. "Tenders will be received!" Why, it needs only one step more to say, that tenders will be received from parties willing to prescribe and dispense by contract, and that the lowest bidder will be accepted. But we believe this state of things cannot last much longer; and, if only the Profession be true to themselves, and a bold and determined stand be taken at the meeting of Tuesday next, we are confident these gross cases of injustice must and can be ended.

We will only repeat our former advice. Take bold and high ground; demand redress from the Commissioners; appoint a Committee to sit *en permanence*, and, if full and entire redress be not accorded by the Irish authorities, call for a Parliamentary inquiry. The importance of the case fully and entirely justifies such a course, and we are confident that it will be successful.

TABLE-MOVING.

There is, perhaps, no subject which has created so great an interest in modern days as the motion communicated to tables and other objects by human contact. *Parvæ res leves captant animos*,—and thousands who care nothing for the advance of science, are still delighted with performing an experiment which may be easily repeated, but which does not promise, so far as appearances go, to lead to any useful application. The great facility with which fraud and self-deception may be introduced into phenomena such as those to which we now allude, must naturally render every scientific man highly sceptical as to the reality of the results which he witnesses; and, however respectable or trustworthy may be the parties who join in the experiment, the cautious observer must diligently seek to investigate every possible source of fallacy in the performance and in the performers, and must even take care of himself, lest he become the fool of his own senses. We should hardly have alluded to this subject, had we not remarked that it has received the attention of some of our leading Journals, and that a great amount of error and of absurdity has been mixed up with the grain of truth which is perhaps involved in the existence of the movements in question. It has also become so much the fashion to demand of the medical man a theory for all the results which may be brought about by the discoveries of science, the refinements of art, or the operations of nature, that he is also expected to give the *rationale* of every absurdity which may float upon the surface of society, and which may, for the moment, captivate the attention of the multitude. Now, with regard to table-moving, the operation has been witnessed and recorded by many persons, of whose veracity there can be no reasonable doubt; and the only question is, whether these parties have not been unconsciously deceiving themselves. It may be added, that, while some of the alleged facts may be true, so far as they go, there is such an admixture of fallacy and palpable deception in the accounts which have reached us, that we are really prompted by curiosity to endeavour to sift the wheat from the chaff, and to undertake the ungrateful, and perhaps profitless, task of disabusing the public credulity, and of proving, that the mysterious locomotion, which has even been attributed to supernatural agency, may be explicable upon common principles. At the same time, we think it is only right to admit, that, supposing the experiments to be fairly performed, they require for their explanation a reference to some physiological laws which, although they have long been before the medical public, have not yet been sufficiently appreciated, and which the universal mania for turning the tables may, perhaps, serve to bring into general notice.

We intend to resume this subject next week.

THE PUBLIC HEALTH OF ENGLAND.
No. III.

In putting eternity, as we agreed to do last week, out of view, in our present consideration of the question of National Health, and confining ourselves to its medical and material interests, we trust not to lose the sympathy and aid of one minister of religion whose sympathy and aid are earnestly given to any practical progress. As physical health is the raw material of animal enjoyment and usefulness, moral health is the raw material of mental happiness and rational religion. In the unwholesome atmosphere which it is the object of Sanitary Reform to purify, physical health greatly deteriorates, and moral health (as by far the more sensitive plant of the two) can scarcely, or very seldom, be said to exist. If measures of public health, therefore, (meaning by that phrase pure air, freshness, cleanliness, and a generally wholesome environment of life,) are desirable for the material, they are essential for the eternal interests of man; and it is because we rank the latter infinitely higher than the former, that we rank the former so high. Health, or life, except for their ends, for the use that is made of them, of what ultimate value are they? Rather, what infinite loss are they, if not employed for some purpose of usefulness or virtue? But as health is the foundation on which all other good is built, we urge the necessity of making that foundation firm; and we urge on all those who are building upon the bad foundations of health which at present exist—ministers of the Gospel, and friends of man everywhere—to help first in laying these foundations broad, deep, and immovable, before—or, at least, while—going on with their own separate works of benevolence.

While those ministers who consider that their poor parishioners are to be made good by standing up once a

week in a pulpit, and preaching at them in the free seats, at twenty yards' distance, are still holding back from the Public Health Movement, thousands of the best men of all denominations, who *go about* continually doing good, are now heartily linking themselves to the cause. They feel, when they go among the houses of the poor, that the atmosphere is too foul for even the light of religious truth to burn, and that the most luminous discourse delivered, once a week, at twenty yards' distance, will fail to kindle the flame. Thousands of them are throwing off the selfish excuse for not joining in this crusade against ignorance, avarice, and disease,—that "it is necessary for a clergyman to avoid all strife,"—because they feel that the long-range of preaching will not alone discomfit the enemy, but that they must, as their Master did, enter into the daily and familiar wrestle with evil. With a working clergy of this kind, the cause of Public Health, and with it every other benevolent cause, will assuredly advance.

Preventive medicine is in harmony with all the "Pathies," even those visionary ones to which many clergymen and ladies have, of late years, given themselves: the clergymen, because the "pathies" contain a system of practice requiring no careful previous study; the ladies,—some from fashion, novelty, and love of change,—some because infinitesimal remedies are best suited to visionary maladies,—a large number from economy,—homœopathy, mesmerism, and electric chains being cheap and easy,—excellent physic for servants and the poor. Well, without questioning the value of these systems of medicine, what we wish at present to say is, that preventive medicine is in harmony with them all; it is easily learned; it is a "universal medicine," given in doses infinitesimally diluted beyond all the wisdom of homœopathic brains; more pervading than all mesmeric influence, and acting even when sceptics are present; (for a true sanitary atmosphere has in it none of the "atmosphere of incredulity"); more powerful than ten thousand Pulvermaehers, backed by whole rows of advertising physicians,—a true water cure, not confined to a few hydropathic baths and washhouses, but universal as the Deluge; the genuine poor man's friend; the only scheme wherein every man may be his own doctor; —surely, no one, but these selfish Allopathists, wedded to their exploded systems of physic, which have kept their ground ever since the times of Hippocrates,—can be opposed to such a cheap, ready, pleasant, universal medicine as this? Strange to say, on inquiry, we find the very contrary to be the case; we find the empirical element to constitute the opposition to health reform, and the old medicine, contrary to all its understood traditions as to fees and drugs, arrayed, almost to a man, in its favour.

Among the adversaries of the Public Health Act, (meaning, thereby, the *idea*,—the *principle* contained in the Act, and not denying in it some errors of detail and omission,) we find the engineering advocates of expensive and exploded systems of public works, lawyers and Parliamentary agents, whose heavy "Improvement Act" fees are cut off for ever by this cheap universal measure for town improvement,—irresponsible and self-elected Commissioners, Paving Commissioners, who have raised an outcry against "centralization," (as if any man, with a head more intelligent than a paving-stone, did not see, that self elected, irresponsible, immovable town authorities, over whom the rate payers have no power whatever,—to elect, control, or dismiss, is "centralization" in its very worst form; the hydra-headed opposition of the proprietors of "small" dirty property, *et hoc genus omne*,—the whole phalanx being the representative of obstruction, unwholesomeness, selfishness, and filth,)—these are the adversaries we see arrayed against the Health Act; while, on the side of its friends, we see the Medical Profession, with fees to lose, and the Clerical Profession and educated unselfish men everywhere, with nothing of a pecuniary kind to gain. Let the public look on this side, and on that, and judge which is the party of truth, progress, and benevolence. L.

PROGRESS OF MEDICAL SCIENCE.

SELECTIONS FROM FOREIGN JOURNALS.

EXTERNAL APPLICATION OF ICE IN TYPHUS.

By Dr. SANDRAS.

The practice consists in the following proceeding:—The abdomen alone is covered with ice, when tympanitis, heat of skin, pain in the abdomen on pressure, and attacks of colic, constitute the chief symptoms. Ice is mixed with linseed-meal, which absorbs the water, and is renewed at frequent intervals in the beginning, when the thawing goes on too quickly from the heat of skin; the application is repeated every quarter of an hour, or even oftener, but less frequently as the heat and fever diminish. First the tympanitis vanishes; then the pain and fever. In hæmorrhages, during typhus, there is no better remedy than ice. Should congestion of the head and stupor supervene, then ice must be applied in a caoutchouc bag to the scalp.—*Gaz. des Hôp.*, 13, 1853.

BOSWELLIA THURIFERA IN CARBUNCLE.

By Dr. CAIFASSI.

The best frankincense (Boswellia thurifera) is to be well powdered, kneaded into a paste, and then spread upon linen half an inch thick; it is to be renewed every twelve to twenty-four hours, till the separation of the sloughed tissues. After twenty-four hours, the little bladders in the periphery of the carbuncle discharge their clean, sharp fluid, the surrounding healthy skin becomes red and hot, phlyctenulæ appear on it, and in forty-eight hours a line of demarcation is formed, which indicates the favourable result. The remedy acts as a stimulant.—*Gaz. des Hôp.*, 13, 1853.

IODINE INJECTIONS IN DYSENTERY.

The author excites a proper amount of irritation by the action of iodine upon the ulcerated œdematous mucous surface in chronic dysentery, where the swelling of the mesenteric glands hinders the normal functions of the lower parts of the large intestine. The irritation is precisely similar to that which iodine exerts when applied to sores in other situations. He uses the following formula: Tinct. iod. alcoh. 10—20 grm., potass. iodid. 1—2] grm., water 200—250 grm. An aperient enema should be first given, to clear out the bowels, and to facilitate the direct action of the iodine upon the mucous membrane of the intestine. Should the first iodine injections produce cholic, opium must be added to the enema. The iodine is readily absorbed from the mucous surface, and indicates its presence by the accustomed appearances in the saliva, in the urine, etc., and also by the taste peculiar to the remedy.—*Bull. de Thér.*, Dec., 1852.

UPON THE RELATION OF THE DIFFERENT PARTS OF THE BRAIN TO THE FUNCTIONS OF THE MIND.

By SCRODEL VAN DER KOLK.

The parts of the brain which stand in closest relation to the mental functions lie upon the surface of the anterior part of the hemispheres in the cortical substance, extending especially from under the frontal bone to the vertex of the head. In the bodies of the insane, who die at the commencement of the disease, some of these convolutions are of rosy hue, others paler than natural, a condition which indicates a greater degree of congestion. In course of time, these changes assume inflammatory characters. The injected pia mater adheres to the cortical substance, and coagulable lymph is poured out between the pia mater and the arachnoid. Should the disease pass into idiocy, the cortical substance becomes pale and atrophied, the pia mater separates with ease, an effusion of limpid serum takes place between its layers, and the arteries undergo atheromatous degenera-

tion. This stage of the disease is incurable; the first stage admits of relief. Ultimately the inflammation propagates itself to the inner surface of the ventricles, serum is effused, and granulations form within. Should the third ventricle become distended by serum, ptosis occurs, and, by its increase, strabismus divergens. In inflammation of the fourth ventricle, hallucination of the sense of hearing follows.—*Tijdschrift der Nederl. Maatsch., Feb.* 1852.

The morbid appearances described by Van der Kolk are such as, with many others, are commonly seen in the examination of the bodies of the insane. But it is not possible to connect the different forms and stages of the disease with the pathological condition of the brain and its membranes with the accuracy professed by the author.

THE LUNATIC ASYLUMS OF GREAT BRITAIN.

Teifert gives no very flattering report of the state of knowledge in this country upon insanity:—"As most English physicians confine themselves to the publication of their views and experience in their yearly Reports, the summary contained in the *Psychological Journal*, January, 1853, is a valuable contribution, as characteristic of the state of insanity in England. Many of these Reports contain nothing but the summary of cures and of deaths, and of the administrative affairs. Many repeat, in unvarying monotony, the removal of restraint, the extension of moral treatment in relation to amusement and occupation,—that everlasting 'amusement, exercise and instruction.' Very few contain new and valuable pathological observations. The following Report refers to the year 1851:—

"*Wakefield Asylum (Dr. Corselli's).*—In January, 1851, there were 285 patients. During the last two years, there were not less than 133 patients with a tendency to suicide! The author complains, that the patients are first brought to the asylum after all remedies have been tried at home.

"*Retreat at York.*—133 patients. Many of the men visited the Industrial exhibition in London. During the winter, there were lectures and experiments upon natural philosophy.

"*St. Luke's.*—In 1851, there were admitted 196 patients. Cures, 74 per cent. Deaths, 7·35 per cent. Drs. Sutherland and Philp.

"*Bethlem Hospital.*—There were received, in 1851, 286 patients. Drs. Monro and Morison. The authors speak of the improvements in the institution, and of the continuance of the use of *knives and forks* among the patients without accident.

"Wales has only lately possessed aLunatic Asylum. One is now opened at Denbigh, for 156 patients. In 1851, 72 patients were admitted, of which, 19 recovered, 5 were improved, and 11 died. Dr. Williams, Visiting Physician; Mr. Jones, Resident Surgeon. In the long Winter evening, the corridors and halls are so dark, that no occupation is practicable.

"*Royal Edinburgh Asylum.*—The largest in Scotland. It receives 498 patients. In 1851, 248 were admitted, 41·8 per cent. were cured. Since the foundation, 2670 patients have been received; of these 1100 have been cured. Dr. Skae says, as to the cause of insanity, that it was intemperance in a large proportion of cases among the men."—*Schmidt's Jahbruch*, 1853.

In the American *Journal of Insanity* (Oct. 1852), Dr. Smith observes, general paralysis is so rare that he has never met with more than one case. Puerperal mania, on the other hand, is remarkably common. Otorrhœa is often due to the influence of mental disorders. The Author had seen seven such cases, during the last year. Ray thinks the influence of civilisation injurious upon the mental functions; too much is demanded from youth; and education is partial and one-sided.

OBLITERATION OF THE RENAL VEIN IN DIFFERENT DISEASES OF THE KIDNEY.

By Dr. LEUDET.

In a man, aged 24, who suffered from albuminuria and died comatose, both kidneys were found enlarged. The right kidney of brownish-red colour, studded with irregular stellate red spots. The cortical substance was enlarged; the pyramids atrophied. In the intervals of the pyramids and in the cortical substance the veins could be traced, filled with a colourless coagulum, but loosely attached to the walls of the vein. The right renal vein, the walls of which were normal, contained no blood, but was filled with a fibrinous clot. A white clot, partly filling the vessel, was found in the vena cava inferior, extending through the iliac to the middle of the right femoral vein. There were no clots in the arteries. The left renal vein was in the same state as the right.

In a woman, aged 34, who died comatose in the hospital upon the second day from admission, both kidneys were found enlarged, of brownish red colour, and studded within with numerous white granulations. In the cortical substance were found numerous white masses, containing epithelial cells. The renal artery was normal. The trunk of the renal vein contained firm fibrinous coagula.

The author cites cases from Rayer, Stokes, Peacock, Delarnelle, Cruveilhier, etc., where fibrinous clots were found in the veins; and he arrives at the following conclusions:—

1st. The obliteration of the renal vein is found in different forms of renal disease, even as a physiological condition.

2ndly. It occurs most frequently in Bright's degeneration.

3rdly. It happens concurrently with enlargement of the kidneys.

4thly. It is difficult to determine whether the fibrinous clot in the renal vein be the cause or the consequence of the renal disease.—*Gaz. de Paris.* 1852.

UPON A NEW METHOD OF EFFECTING THE COAGULATION OF THE BLOOD IN THE ARTERIES, APPLICABLE TO THE CURE OF ANEURISMS.

By Dr. PRAVAZ, of Lyons.

M. Rayen communicated to the Academie des Sciences, at Paris, the following extract of a letter from M. Lallemand, relative to some experiments upon the coagulation of the blood by Dr. Ravaz.

The means which Dr. Pravaz proposes to employ, consist in the coagulation of the blood in the vessels by an injection of a few drops of perchlorurel of iron, at its maximum of concentration. This injection is effected by a trocar, either of gold or platinum, which is introduced obliquely across the walls of the artery by a drilling movement. To the trocar is adjusted a syringe, the piston of which should move as a screw, that the injection may be effected without jerks, and that the injected fluid may be measured with precision. It is also necessary for the moment to stop the current of blood.

Experiment 1.—In a sheep, the carotid artery having been exposed, the circulation was arrested by pressure between the index-finger and the thumb at two points, distant about five centimetres. About a spoonful of blood was intercepted. An oblique puncture was made through the walls of the artery, and three to four drops of protochlorurel of iron were injected by two turns of the screw of the piston of the syringe. Immediately after the injection, the finger felt an increase in the density of the blood; the clot was perceived to form, and, five minutes afterwards, the pressure was removed, it being thought that the vessels were obstructed. The clot remained firm, and did not change its position for eight days.

The same experiment was repeated upon horses, and with an equally successful result.

Up to the present, Dr. Pravaz' experiments have been purely experimental. He proposes, in the event of its being tried for the cure of aneurism in the human subject, pressure for about five minutes after the injection of the fluid into the aneurismal sac.—*La Presse Medicale Belge.* Jan., 1853.

UPON THE COMPOSITION OF THE SEMEN IN OLD MEN.

By Dr. A. DUPLAY.

Bérard, Burdach, Müller, Longet, state, that spermatozoa are absent in the seminal secretion of the aged; Wagner alone asserts, that, in men of seventy to eighty years, these bodies are found in the vesiculæ seminales, if not in the testicle. Facts tend to prove that the fecundating power is retained up to the age of 100. The author investigated the semen in fifty-one subjects, after death caused by various diseases. In its physical properties, the semen was sometimes of yellow colour, as in the adult; generally of a paler, straw hue, or almost colourless, milky, or creamy. In twelve cases it was thick; but, in the greater number, it was serous, though mixed with the usual mucous secretion from the vesiculæ seminales. In most cases the vesiculæ seminales

were full of fluid; in one only were they atrophied. The semen in the vasa deferentia was always darker-coloured than that in the vesiculæ.

In thirty-seven cases, the author remarked the presence of spermatozoa; in fourteen he failed in detecting them. In twenty-seven cases they were such as are usually seen in the healthy adult; in the rest the tail was shorter, and the head sometimes separated. Once he saw a number of crystals, whose nature he could not investigate. Considerable variety existed in their proportion.

In twenty-six cases, spermatozoa were found along the whole tract of the spermatic passages; three times only in the vas deferens; once only in the fluid of the vesiculæ seminales; seven times in the vesicula seminalis of the left side only. In the latter cases there existed mostly degenerations of the testicle, or obliteration of some part of the seminal duct. Secretion of semen continued, however, in cases where there was considerable atrophy of the testicle; the highest weight of which was 11·98 grammes, the lowest 4·50 grammes. The tissue of the testicle was always normal; the epididymis contained occasionally cysts. In four cases there was hydrocele. In the fourteen cases where there were no spermatozoa, the subjects had passed the age of seventy; but there were no special changes discoverable in the glands. The secretion of semen, concludes Dr. Duplay, continues in old men, but in a less degree; their semen contains spermatozoa even when the person is beyond the age for fecundation. The cause, therefore, of want of power to effect this end cannot be explained upon the idea of the deficiency of spermatozoa.—*Arch. Gen.*, Dec., 1852.

GENERAL CORRESPONDENCE.

BOARDS OF GUARDIANS AND THEIR MEDICAL OFFICERS.

[To the Editor of the Medical Times and Gazette.]

Sir,—In your Number of the 2nd of April last you were good enough to publish a letter explanatory of the proceedings of the Board of Guardians of the Bishops Stortford Union, who were then endeavouring to enforce a reduction of the salaries of the medical officers in a most arbitrary and uncourteous manner. From the remarks you made, in one of your editorial articles, last year, upon the conduct of the medical officers of this Union in resisting a similar attempt, and the uniform spirit of your Journal, I am quite sure you will, at least, afford us room for the sequel to the letter above referred to, which is as follows:—

When we found the Guardians had advertised for other gentlemen to supply our places at the reduced salaries, we forwarded to the Poor-law Commissioners a Memorial, signed by the clergy, magistrates, and gentry of the Union, expressive of their regret at the differences existing between the Board of Guardians and their medical officers; their belief that the salaries at present received by the latter were altogether inadequate to the duties they were called upon to perform; deploring the attempt now being made by the Guardians to enforce a reduction of their stipends; and their earnest hope that the Commissioners would exercise their judgment and authority in bringing the matter to a just termination.

On the receipt of this Memorial, the Commissioners placed themselves in communication with the Board of Guardians, and, after some correspondence, refused to sanction any reduction. Thus worsted, the Guardians determined to punish some of their medical staff for their successful opposition, and accordingly resolved to offer two districts, instead of to the old officers, to medical men who had tendered for some appointment at the reduced salaries; the other districts were offered to the present occupants.

Upon this a meeting was held by the Poor-law medical staff of the Union, and application was made to the Poor-law Board to know, whether the Commissioners had the power of withholding their sanction to the appointments of two medical men, who were to be substituted for old officers who had held office for many years, (in one case, for twelve continuously), and who had performed their duties efficiently, conscientiously, and without reproach. A courteous reply was obtained, showing that, as the appointments are from year to year, they terminate by lapse of time, and the office thus becoming vacant, the Guardians are only required to appoint duly-qualified persons living within the districts, and are thus at liberty to make any change or changes they please.

You will not, Sir, be surprised, that under these circumstances, the Medical Officers, finding they had no protection from the caprices and injustice of a Board of Guardians to expect but from their own conduct and the sympathy of the public, determined to decline to renew their appointments so long as two of their staff were virtually dismissed to gratify the vindictiveness of a majority of the Board.

The Guardians have again advertised, but this time they have made the districts fewer and larger, in order to hold out greater inducements to young Medical Men to tender for them. In our resistance to these proceedings of the Board of Guardians, we have been actuated by the desire of supporting the honour of our Profession; and, in furtherance of this object, we think it right to make known through your Journal the result of our unequal contest. It remains to be seen, whether the Profession will support us, or whether, by accepting office under this Board, assist it in carrying out its arbitrary and unjust intentions. At any rate, we have the consolation of knowing, that our conduct has met with the approval of all by whom we are surrounded, who are almost unanimous in condemning those Poor-law Guardians who, to carry out their own vindictive course, sacrifice the interests of the poor.

I am, &c. A Poor-law Medical Officer.

Bishops Stortford.

LOGWOOD IN DIARRHŒA.

[To the Editor of the Medical Times and Gazette.]

Sir,—I beg to send you the following notes for insertion in your Journal, if you consider them to possess sufficient interest for your readers:—

At this hospital, logwood is frequently prescribed in cases of protracted slight diarrhœa, generally in doses of an ounce of the "decoctum hæmatoxyli," three times a day. According to the hospital formula, six times as much logwood is used for the decoction as in that of the London Pharmacopœia. About six weeks ago, one of the patients, (a weak old man, admitted some time before for fractured ribs,) who was taking logwood, prescribed only the day previously, showed me the urine of that morning, which, he said, was the colour of the mixture he was taking. It was of a bright clear-red colour, not quite the purplish tinge of the logwood decoction. It was slightly but decidedly acid with litmus-paper. A crystal of sulphate of iron, dropped into it, produced a black cloud, which soon gave a deep uniform blackness to the whole. Other salts of iron had the same effect. He took the decoction of logwood for nearly a fortnight, when it was omitted, as the bowels required an opposite treatment. The urine was always of this peculiar colour, —sometimes more, sometimes less,—decidedly, but generally very much more coloured soon after taking the medicine, and also in the early part of the treatment; it always answered in the same way to the above tests, and, on standing for some time, the lower half of the urine would be more highly-coloured than the upper. As soon as the logwood was omitted, the urine re-assumed its normal colour; sometimes a yellowish deposit took place, which proved to be lithate of ammonia, soluble by heat, and lithic acid crystallising out when acetic acid was added. The other microscopic characters were, that no blood-corpuscles were to be seen in it, and that some mucus, etc., existed, as in healthy urine.

I presume that the colour did not result from the presence of biliary matter in the urine, as it yielded no greenish tinge on the addition of nitric acid. The colour could not have been produced by purpurine, because the lithate of ammonia deposit (when present) was not of a pinkish colour, but yellowish. In "Pereira's Materia Medica," p. 1595, Vol. II., Edit. 1842, he writes of logwood:—"Dr. Percival states, that under the use of extract of logwood, the urine of a female suddenly acquired a purplish-red colour, which was deepened by the sulphate of iron; after some hours the secretion returned to its natural colour. The stools sometimes acquire a purplish-red colour from the use of logwood."

Perhaps Dr. Percival's patient passed alkaline urine. In the case of the man in the hospital, it was always acid, so not a purplish-red, but a drop of liquor ammoniæ always at once produced the purplish tinge in it; his stools were not altered in colour. He has left the hospital. Since then, another patient, also a debilitated old man, has been taking the decoction of logwood; his urine is similarly coloured, and answers to the same tests in the same way; his stools were coloured red when he first took it.

I have inquired of many other patients, but have only yet found these two cases in which the urine assumed the colour of the medicine when it has been prescribed for them.

I am, &c.,

J. Fremlyn Streatfield, House-Surgeon.

London Hospital.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Dr. Copland, President, in the Chair.

FURTHER RESEARCHES ON THE PATHOLOGY OF PHLEGMASIA DOLENS.

By ROBERT LEE, M.D., F.R.S., &c.

The author commenced his paper by observing, that it was not till the publication of the memoirs of M. Bouillaud, M. Velpeau, and the late Dr. Davis, that the true nature of this disease was known. Up to this period various hypotheses had been advanced respecting the cause of the swelling in the lower extremities of puerperal women,—mere speculations unsupported by facts; but the cases and dissections of the authors just enumerated, demonstrated that the true nature of the disease consisted in an inflammation of the trunks and principal branches of the veins of the lower extremities. In papers by the author, published in the fifteenth volume of the *Transactions*, the actual condition of the iliac and femoral veins was ascertained, and he had been led to infer, that inflammation of these veins gave rise to all the phenomena in puerperal women of phlegmasia dolens, and that it commenced in the uterine branches of the hypogastric veins, and subsequently extended from them into the iliac and femoral trunks of the affected side. Other cases had been recorded in the *Transactions*, of crural phlebitis following ulceration of the mucous membrane of the intestines. Experiments performed by Pirigott in 1839, and by Reumert in 1840, on dogs, showed that the action of chemical and mechanical irritants was limited to the vein on which the experiment was made, and the extension of the inflammation in the veins was not common; and Stannius, who had collated and tested all the facts bearing on the subject, doubted whether inflammation of venous trunks admitted of being excited by constitutional causes, independently of local irritation. A series of experiments on the veins of the lower animals similar to those just mentioned had recently been made, and a paper on phlegmasia dolens had been read to the Society during the present session, not founded on actual observation of the disease as it occurs in the human subject, but upon experiments on the veins of the lower animals in which phlegmasia dolens had never been observed. The object of the present communication was to submit to the Society the observations which the author had made during the last twenty-four years on inflammation of the crural veins. The paper contained the record of forty-three cases of phlegmasia dolens. The first nine cases were accompanied by *post-mortem* descriptions, and preparations illustrating the disease; and the author was led, from the whole of the facts thus adduced, to the conclusions he had formerly expressed, "that inflammation of the iliac and femoral veins gave rise to all the phenomena of plegmasia dolens, and that the inflammation commenced in the uterine branches of the hypogastric veins, and from them extended to the iliac and femoral trunks of the affected side." The next series comprised the history of twenty cases, which the author thought furnished additional evidence in favour of this conclusion, though, in consequence of the recovery of the greater number of the patients, an opportunity was not afforded of determining by dissection the actual condition of the crural veins. Nine cases followed, which demonstrated that phlegmasia dolens might occur wholly unconnected with pregnancy and parturition, and that in such cases the inflammation likewise commenced in the uterine branches of the hypogastric veins, and followed a course similar to what occurred in puerperal cases. In some of these the inflammation of the uterine veins was produced by cancerous disease of the os and cervix uteri; in others there was no organic disease of any kind previously existing. The concluding cases were five, in which crural phlebitis had followed inflammation of the saphena veins, and of the deep veins of the lower extremities, from fracture of the tibia and fibula, and the pressure of encephaloid tumours on the thoracic viscera. The author thought that these cases and dissections, as well as those of the distinguished authors whom he had quoted, proved in the most conclusive manner that inflammation of the iliac and femoral veins was the proximate cause of phlegmasia dolens; and that in puerperal women this inflammation commenced in the uterine branches of the hypogastric veins. It had likewise been demonstrated, by morbid anatomy, that phlegmasia dolens was a disease which might take place in women who had never been pregnant, and even in the male sex, and that, under all circumstances, the proximate cause was the same.

The President observed, that the Paper contained a valuable collection of facts, and illustrated pathological conditions of the highest importance, on which he felt sure many of the Fellows present were well qualified to express their opinions.

Mr. Mayo wished to know whether Dr. Lee had ever observed any symptoms that might be regarded as antecedents in the cases of phlegmasia dolens, which he had witnessed, such as general plethora, a loaded state of bowels, &c.

Mr. Streeter inquired whether Dr. Lee was provided with any statistical accounts respecting the frequency of phlegmasia dolens, whether following parturition or disconnected therewith.

Dr. John Clarke asked if Dr. Lee thought that all cases of phlegmasia dolens originated in inflammation of the iliac and femoral veins. He believed, that the concurrent testimony of numerous authors, proved that phlegmasia dolens was a disease rarely fatal. Now, it was well known, that crural phlebitis was a very dangerous affection, not infrequently followed by death; and he was, therefore, disposed to believe that, if phlegmasia dolens did in reality always commence with inflammation of the iliac and femoral veins, it would be a much more dangerous malady than they had hitherto been accustomed to regard it.

Dr. Mackenzie said, that, in the discussion of such questions as that which was now before the Society, it appeared to him to be important to distinguish between the facts which were alleged and the conclusions which had been drawn from them. Now, in the present case, the facts alleged were, that certain lesions of the crural veins were developed in the progress of phlegmasia dolens. The conclusions were, that such lesions constituted the essence or proximate cause of the disease. He (Dr. Mackenzie) assented fully and entirely to the first of these propositions, while he dissented as fully and entirely from the latter; and, as he was unwilling to enter upon the discussion of this question in a controversial spirit, he would make no reference whatever to the investigation which he had lately submitted to the Society on the subject of this disease, but would confine himself to a statement of such facts as were known to the Profession, which appeared to him to be opposed to the theory of the disease which had been affirmed by Dr. Lee. The disease known as phlegmasia dolens was a very complex malady. It was one which was characterised, not only by a morbid condition of the veins, but by a morbid condition of the sensory, the motor, the lymphatic, and the secretory organs of the affected extremity also; and accordingly, in all well-marked cases of the disease, there was exquisite sensibility of the limb, especially in the track of particular nerves, loss of motor power, amounting sometimes to perfect immobility of the extremity, inflammation and obstruction of the lymphatic vessels and glands, and a general hot, tense, and elastic swelling of the limb, not simply arising from œdema, but possessing rather the character of active exudation than of passive effusion. Now, could all these lesions depend upon or be deduced from mere inflammation and obstruction of the principal vein of the extremity? Were they ordinarily observed in cases of simple, uncomplicated phlebitis? Or, if not, was there anything in the anatomical or physiological characters of the veins to justify our deducing them *à priori* from it? And if we replied to these questions, as he submitted that we must, in the negative, he should ask whether those who adopt this theory have undertaken any particular investigation for the purpose of determining this point? In other words, have they reproduced the lesion of the veins in a simple, uncomplicated form, and observed such consequences to follow? Now, to these questions we must also reply in the negative, and it must be added, that the whole matter rested purely on assumption. It had been assumed, that because the crural veins were found obviously diseased in fatal cases of phlegmasia dolens that such lesions constituted the proximate cause of the disease. No further steps had been taken to establish the truth of this doctrine, and that, therefore, had been taken as a matter of assumption which ought to have been made a matter of demonstration. Further, he would observe, that the clinical history of the disease and the progress of symptoms did not support this theory. It was quite true that in some cases the first irritations commenced in the region of the femoral vessels, but in others it was far otherwise; in some they commenced in the back, in others in the hip, sometimes in the calf of the leg, and more frequently in the popliteal region. Again, one leg might be affected alone, or both lower extremities concurrently; or the disease, after having attacked one, may pass on to the other, or a superior extremity might be affected; and he had lately met with a case in which, after symptoms of the disease had successively declared themselves in the left lower and upper extremities, the malady ultimately established itself in the right arm, the whole right upper extremity being hot, swollen, and tense, the surface exquisitely painful, with loss of motor power, and a tense, corded condition of the basilic vein. Now, it appeared to him that these facts were inconsistent with the theory, that the proximate cause of the disease was essentially inflammation of the crural veins.

They pointed to the existence of some more general and diffusive cause, in regard to which it was probable that phlebitis itself was but a secondary affection. Again, he would point to the general experience of the Profession as being opposed to this theory. It was now upwards of thirty years since it was first promulgated by his friend and teacher, the late Dr. David Davis; and, although the facts upon which it rested were well known, it was yet very far from being generally adopted. Thus, in this country, Dr. Burns affirmed, that the nerves were as much affected as the veins. Others regarded the lymphatic vessels as being principally affected; while many, dissatisfied with these restricted views of the pathology of the disease, preferred the theory of the late Dr. Hull, that it consisted in a general inflammation of the several organs and structures of the affected limb. So again, on the Continent, the greatest difference of opinion existed respecting its nature and pathology; and, while many affirmed, that it consisted essentially in inflammation of the lymphatics, and others that it was a specific inflammation of the cellular tissue, nearly all agreed that, in its general characters, it differed widely from ordinary phlebitis. Now, this diversity of opinion existed notwithstanding that all were aware of the facts upon which the phlebitic theory of the disease rested; and it afforded a powerful argument against it, because it tended to show that, when tested by general experience, and considered irrespectively of particular facts, and free from bias, it failed to account rationally for all the known phenomena of the disease, and consequently could not be regarded as its proximate cause. Then, in the sequelæ of the disease, circumstances were met with which are inconsistent with this theory. We know, for instance, that after an attack of the disease, the crural veins are generally left impervious or obliterated, and yet successive attacks of the disease may occur in the same extremity. Now, if it is true that the first attack left them in the condition described, it was difficult to understand how these vessels, having functionally ceased to exist, could again take on functional activity, and become the seat of active inflammation. So also it happened after an attack of the disease, that the limb would be left for many years, or even for the remainder of life, in a weak, sensitive, and irritable condition, being easily affected by atmospheric and constitutional influences. It was easy to reconcile these facts with the notion, that the nerves had been injured or damaged by the attack, but not with the idea that the veins alone had been affected. On all these grounds, then, it appeared to him (Dr. Mackenzie) that the phlebitic theory of the disease was either defective or erroneous. But, assuming for a moment that it was correct, he would observe that it left much which was still to be explained. We had yet to learn the nature of that peculiar inflammation of the veins met with in this disease which was so exceptional, and so different from ordinary phlebitis. Did it depend upon some peculiar disposition on the part of the venous coats to take on diffusive inflammation, or did it depend primarily upon the blood? If we adopted the first of these theories, we were bound to state the nature of the peculiarity, and the laws of its development. For to be satisfied with merely giving it a name, and to speak of it as a "specific" inflammation, was not to advance our scientific knowledge, but rather to take refuge, or to hide our ignorance under the shadow of a name. If, on the other hand, we accepted the latter view, and regarded the venous inflammation as dependent upon some morbid condition of blood, then, indeed, we might reasonably account, not only for the peculiarities it presented, but for all the several lesions of other organs, and the structural changes with which it was associated. Upon this view, also, we might reconcile the conflicting opinions respecting the nature of the disease which had been held by different pathologists, and the variations which it manifested in its symptoms and progress in different cases. But, in accepting this view, we must forego the theory that phlebitis was the proximate cause of the disease, and regard it, as it really was, as a secondary rather than a primary phenomenon; related to the other lesions of the extremity, not so much in the order of cause and effect, as in being, like them, a parallel effect of some more general and diffusive morbific agent.

Dr. Lee rose and said: In answer to Dr. Mayo, I may state, that, in all the cases of phlegmasia dolens which have come under my observation, there were no peculiar antecedents to account for the disease. In reply to Mr. Streeter, I may state, that I have related simply the cases which I have seen, and have no information to communicate respecting the statistics of the disease. It is the proximate cause that I have had to deal with. I shall reply to the other questions, which have been put to me by Dr. Clarke and Dr. Mackenzie, by giving a short historical account of phlegmasia dolens from the time it was first pointed out by Mauriceau up to the present day. It is almost a century since the Memoirs of Puzos were published, and all the characteristic symptoms of the disease described with the greatest fulness and accuracy. "La douleur," he says, "suit ordinairement le trajet des gros vaisseaux qui descendent le long de la cuisse: elle est même plus vive dans tout ce trajet. On reconnoit l'étendue du mal par une espèce de corde douloureuse que forme l'infiltration du tissu cellulaire qui accompagne ces vaisseaux, et l'enflure se joint presque toujours à la douleur." It is difficult to comprehend why, having observed so distinctly this painful and swollen condition of the crural vessels at the commencement of phlegmasia dolens, he did not take his scalpel, divide the integuments and parts covering these vessels, and discover the proximate cause of the disease. But so completely was his mind misled by the hypothesis, that all the phenomena of the disease depended upon a deposit of milk in the limb, that he could not discover the truth, though it lay almost upon the surface—proving how much more easy it is to speculate, to frame a hypothesis, or propound a plausible but erroneous theory, than it is to demonstrate a simple fact. Levret, in 1761, in describing the disease, said, "Le cordon des vaisseaux cruraux est aussi douloureuse, pour lors, dans une grande partie de son trajet;" but so completely blinded was he, likewise, with the theory of the milk rolling confusedly in the blood of puerperal women, that he could not see what was before him. In 1781, Mr. White's work on the subject appeared, in which another hypothesis was proposed, viz., that the symptoms arose from obstruction, detention, and accumulation of lymph in the limb; and, in the years 1812, 1813, 1814, and 1816, I heard Dr. Hamilton, at Edinburgh, maintain this view with as much confidence, or even greater, than if its truth had been actually proved. Many years after, when I showed him, when in London, some of the preparations on the table, his answer was, on this side of the Tweed, but it is not so on the other." In 1792, Mr. Trye propounded another theory,—that the disease arose from the rupture of the lymphatics, as they cross the brim of the pelvis, under Poupart's ligament. In 1800, another hypothesis was proposed by Dr. Hull, which was, that the proximate cause of the disease consisted in an inflammatory affection of all the structures of the limb, muscles, cellular membrane, bloodvessels, and inferior surface of the cutis. Every part of the limb was asserted to be inflamed, except the bone. Dr. Hull thought the disease one of a complex nature, like some now speculating on the subject, involving the lymphatics, nerves, bloodvessels, every tissue, in a word, of the limb, except the bone; but he never actually examined the limb of a person who had suffered from phlegmasia dolens. This was first done by Mr. Lawrence, in 1817, and the proximate cause of phlegmasia dolens demonstrated to be an inflammation and obstruction of the crural veins. A patient died under the care of Dr. D. Davis, after having had the disease; and he, not being satisfied with any theory of it which had been promulgated before, requested Mr. Lawrence to examine the body. Dr. Davis had no theory on the subject when this examination was made; but he was not satisfied with all the theories that had been propounded, and he resolved to appeal to nature; and, in doing so, he displayed a philosophical spirit which deserves the highest approbation. The femoral vein from the ham upwards, the external iliac, and the common iliac veins, were all found inflamed and plugged up. In 1819, another fatal case came under the observation of Dr. Davis, and the same appearances were seen in the crural veins. In 1820, another case occurred to Mr. Oldmore, and a fourth to Dr. Davis in 1821. On the 6th of May, 1823, Dr. Davis's paper, containing an account of these dissections, was read to this Society; but, in January, 1823, four months before Dr. Davis's paper was read, M. Bouillaud published, in the *Archives Générales de Médecine*, two genuine cases of puerperal phlegmasia dolens, in which the veins of the lower extremities were found after death to have been inflamed and obstructed, as in Dr. Davis's cases. M. Bouillaud related three other cases in which swellings of the lower extremities were found to depend on obliteration of the crural veins in persons who had not been recently delivered; and he distinctly stated, that he considered obstruction of the veins to be the cause, not only of the œdema of the lower extremities in lying in women, but of many partial dropsies. Dr. Davis took great offence, because a sense of justice to M. Bouillaud compelled me to refer to these facts in my first paper on Phlegmasia Dolens communicated to this Society. The discussion on Dr. Davis's paper took place in this Society on the 20th of May, 1823, very nearly thirty years ago. I was present on the occasion, and took a note in short-hand, which has been preserved, of what was said. No reporters for the public journals were then allowed to be present at our meetings. If the Fellows now feel any desire to know how the paper was received, I shall be happy to read this Report of our proceedings thirty years ago. (A wish having been manifested that this should be read by Dr. Lee, he did so, and it was as follows):—"Tuesday, May 20, 1823.—The discussion on Dr.

Davis's paper took place this night. Several cases were mentioned, which seemed to confirm the view which he had taken of the disease. Dr. James Johnson stated, that a case of the disease had been related by the Editors of the *Medical Repository* several years ago, and that they had found inflammation of the veins of the limb affected, and that they had felt disposed to attribute the affection to the same cause. Dr. Johnson stated, that Sir Astley Cooper had performed an operation for varix of the saphena vein, which was followed by all the symptoms of phlegmasia dolens, and he had no doubt that inflammation of the veins had been excited. Mr. Abernethy related the histories of several cases in which there could be no doubt that it depended on inflammation of the lymphatics, and that the veins were not affected; and he thought it might, in different cases, depend on different causes. Dr. Armstrong made some remarks on the necessity of employing the remedies recommended by Dr. Davis with great caution, particularly the bleeding and digitalis. Phlegmasia dolens often occurred, he said, in women who had been afflicted with puerperal fever, and had been previously reduced by copious venesection. In such cases, large general bleedings would destroy the patient, and there was often a great tendency to irritability of the stomach, which, if increased by the digitalis, might produce the same effect. Mr. Alexander Shaw thought that clots of blood, and appearances of purulent matter in the centre of the clots, were often found in veins where there had been no previous inflammation, and that he could not conceive, if there was actually inflammation present, that the application of a few leeches could relieve it in the manner Dr. Davis stated. Mr. Herbert Mayo related a case, and thought that all those that had proved fatal had done so from obstruction of the veins: He did not appear to know, that it was possible for the circulation, in such cases, to be carried on by means of the collateral vessels." Dr. Lee having read this Report, said, I hold in my hand a list of all the Fellows who were present on that occasion—twenty-six in number, nineteen of whom have since died. (The list was read, from which it appeared, that the President—Dr. Copland, and Dr. Lee, were the only Fellows present, who were at the Society on the 20th of May, 1823.) Dr. Davis published nothing further on the subject, continued Dr. Lee, and six years passed away before another example of phlegmasia dolens was recorded in the medical literature of this country, in which the condition of the crural veins was ascertained by dissection. From 1823 to 1829 no additional information appeared on the subject in this country. Three of those years I was on the Continent, and returned home at the close of 1826, or 1st of January, 1827. Soon after I had a good opportunity of ascertaining what progress had been made on the subject. On the 10th of March, 1827, a meeting of the Westminster Medical Society was held, when a discussion took place on phlegmasia dolens. I took also a note in short-hand of what was said on that occasion, which has been preserved. (A wish having been manifested that this also should be read by Dr. Lee, he did so, and it was as follows): —" A discussion took place this evening at the Westminster Medical Society, on phlegmasia dolens. It commenced by some observations on the symptoms and pathology of the disease. No one seemed to agree with Dr. Davis's views respecting the disease, and one eminent speaker positively asserted that he had been describing a wholly different disease." Several gentlemen who had been at this Society on the 20th of May, 1823, were present at the Westminster Medical Society on the 10th of March, 1827; but not one word was said in defence of Dr. Davis, but the reverse. His cases were held to be cases of phlebitis, but not of phlegmasia dolens. Dr. James Johnson referred to Dr. Denmark's case, in a man, which, he asserted, completely overturned Dr. Davis's theory. All the symptoms of the disease, he said, were present, but there was no disease of the veins. From all this it was obvious, that the pathology of phlegmasia dolens required further investigation, and an opportunity soon presented itself to me to begin the undertaking. How an interval of longer or shorter duration—several weeks, or even months—should elapse between the delivery and the appearance of the disease in the limb, was a circumstance of which no theory had furnished any rational explanation, and why the disease should not occur during pregnancy, if pressure of the gravid uterus was the exciting cause. I had adopted no theory of the disease, when I was requested, on the 14th of March, 1827, four days after the previous discussion, to see a case of genuine puerperal phlegmasia dolens, under the care of Dr. N. Grant. The symptoms were those described by Puzos and Levret, and the cord of crural vessels was felt hard and painful in the upper part of the thigh I had no doubt that the femoral vein was inflamed and obstructed. Dr. Sims, Dr. James Johnson, and several other physicians and surgeons, saw the case, and all were of opinion, that it was an undoubted case of phlegmasia dolens. Dr James Johnson maintained, that the hard, painful cord in the thigh was an inflamed absorbent; and, because the patient recovered, he believed and stoutly maintained, that the femoral vein was not affected, and, during the following year and a half, he never failed to remind me, when we met, that I had committed a great mistake in supposing that there was in this case inflammation and obstruction of the femoral vein. In November, 1828, the patient having again become pregnant, and suddenly died from uterine hæmorrage, I examined the body, and removed all the iliac and femoral vessels which had been converted into structures resembling ligamentous cords. I took them, in the recent state, to Dr. James Johnson. After examining them, he said, there could be no doubt the morbid appearances in the vein were the consequence of inflammation. I then informed him that they were the iliac and femoral veins of the patient whom he had seen under the care of Dr. N. Grant. From that hour I never heard one word respecting phlegmasia dolens from my late friend He never said anything after this respecting inflammation of the absorbents in this disease. The preparation is upon the table; but the inflammation was not limited to the coats of the veins. It will be seen that the artery is firmly adherent to the vein; and, in the report of the dissection, it is stated, that the whole of the left extremity was larger than the right, and that the adipose membrane was peculiarly dense and granular. The inflammation had spread from the veins to all the surrounding structures. Dr. Lee then proceeded to relate the circumstances which had led him to discover the fact, that the inflammation of the iliac and femoral veins commences in the uterine branches of the hypogastric veins, and subsequently extends from them to the iliac and femoral trunks of the affected side. He denied that he had ever received any hint or suggestion on the subject from Mr. Guthrie, or any other person, as had been stated by the President, in his learned article on Phlegmasia Dolens, in his Dictionary. In May, 1829, whilst attending an out-patient of the British Lying-in Hospital, who had been delivered ten weeks before, and was dying of tubercular phthisis, a sudden attack of inflammation of the uterus took place, which was followed in a few days by phlegmasia dolens of the left side. The patient did not die of phlegmasia dolens, but of phthisis, and then it was discovered on dissection that the inflammation of the crural veins had commenced in the uterus, in fact, that uterine and crural phlebitis were merely different stages of the same disease. It then at once became obvious why the disease followed parturition, and why there should invariably be an interval between the delivery and the local affection of the limb. The connexion between puerperal fever and phlegmasia dolens, which had been so fully pointed out by Puzos, Hull, and Armstrong, was thus fully explained. In every case which had subsequently come under his observation, Dr. Lee affirmed that there was evidence to prove that crural phlebitis commenced in the veins of the uterus, and he appealed to an extensive series of preparations, placed upon the table of the Society, for a demonstration of the fact. He believed there were few pathologists in Europe who entertained the slightest doubt on the subject. It was now asserted, without any proof, that phlegmasia dolens was a blood disease; but in all the supposed diseases of the blood, typhus fever, small-pox, measles, scarlet fever, gout, rheumatism, etc., phlegmasia dolens was never seen; and if this view were correct, how came it to pass that the veins of the upper extremities, and the great veins of the abdomen and chest were seldom, if ever, found inflamed and obstructed in these diseases. It had been admitted, both by Mr. Arnott and himself, twenty-four years ago, that it was impossible to account for the phenomena of uterine phlebitis without supposing that the blood was poisoned by the pus and other morbid fluids formed in the veins and absorbents, and that the sudden attacks of ophthalmia, of inflammation of the lungs and joints, and secondary deposits, etc., could only be attributed to this cause. In uterine and crural phlebitis there is not the slightest ground for believing that the blood is in a morbid state before the inflammation has commenced in the veins, and the local and constitutional effects of inflammation of the uterine and crural veins are the same as those witnessed in all other parts of the venous system. Dr. Lee said it had now been demonstrated, that phlegmasia dolens was not peculiar to women in the puerperal state, or even to the female sex, but might occur in men. Lord Liverpool went to a levee in silk stockings, and stood near an open window. Inflammation of the saphena vein followed, which extended up to the femoral, and all the symptoms of puerperal crural phlebitis followed. Sir A. Cooper examined the veins many years after; for Lord Liverpool did not die of phlegmasia dolens, and the crural veins were all found obliterated. They are preserved in the Museum of the College of Surgeons. The same effect was produced in a military officer whom I knew, by a blow on the leg. An ulcer on the tibia has led to the same result; and standing many hours in cold water.

It has repeatedly taken place after delivery spontaneously, in those whose saphena veins had been varicose during pregnancy. With such conclusive experiments supplied to us by nature on the human subject, he thought it illogical in the highest degree, to make experiments on the veins of donkeys and dogs, or expect that they could in any way illustrate the proximate cause of phlegmasia dolens, a disease which had never been observed in any of the lower animals. These experiments on the veins of the lower animals prove nothing, said Dr. Lee, but this, that women are not dogs. In conclusion, Dr. Lee related the history of a case of phlegmasia dolens in both lower extremities in a military officer, whom he had seen since this paper was presented to the Society, and in whom the disease followed the sudden suppression of some discharge from the urethra. The disease in this case, he thought, must have commenced in the vesical veins. There was a great mass of varicose veins over the hypogastrium, from which, on each side, there passed up to the thorax a venous trunk, nearly as large as the thumb, and which he thought supplied the place of the obstructed vena cava. On the left side, this great trunk passed into the axilla; on the right, it suddenly disappeared close to the mamma.

THE ABERNETHIAN SOCIETY OF ST. BARTHOLOMEW'S HOSPITAL.

CASES ILLUSTRATING THE USE OF CHLOROFORM IN THE TREATMENT OF HERNIA.

By W. S. SAVORY,
Tutor at St. Bartholomew's Hospital, etc.

[Continued from page 460.]

Case 7.—FEMORAL HERNIA.—OPERATION, AND RECOVERY.

Esther Mansfield, aged 35, a healthy, robust woman, was admitted into Lucas Ward, Jan. 23, 1852, at 12 in the day, under the care of Mr. Stanley. Skin cool. Pulse 96, soft, and of moderate volume. Tongue clean and moist. Constant vomiting of two days' duration. Bowels have not been relieved for two days. Over the right femoral ring is a soft, painless tumour; it extends upwards towards Poupart's ligament. No impulse on coughing. The abdomen is soft, and quite tolerant of pressure. She is married, and has had numerous children. About five years ago, during parturition, a small tumour appeared in the right groin; it readily disappeared under pressure, but immediately returned. She formerly wore a truss, but has lately left it off, on account of some uneasiness in the part. She accidentally discovered the present tumour last night; but the previous evening she was attacked with pain in the abdomen, and constant vomiting. One attempt at reduction was made in the warm-bath, and two attempts were repeated while under the influence of chloroform. No impression was made on the tumour.

2 p.m.—She was removed to the operating theatre, and, at her own request, no chloroform was given. She bore the operation remarkably well. A vertical incision was made over the tumour, and some lymphatic glands, which seemed to increase the size of the tumour, were exposed, and dissected off. The free edge of the fascia lata was then divided upwards, and reduction unsuccessfully attempted. The oval, dark-looking tumour was then further explored, and layer after layer was cautiously dissected from its surface, until it was clear that the sac itself (of a dark colour) was exposed. All external obstruction being removed without effect, this was opened, and a small knuckle of intestine, almost black in colour, was exposed, and easily returned into the abdomen. A large quantity of somewhat turbid serum escaped from the peritoneal sac. The external wound was closed by sutures, and a pad and bandage having been applied, the patient was replaced in bed. Shortly after the operation, she appeared comfortable, and complained of nothing, except some pain in the wound. She does not seem inclined to sleep. Skin moist. Pulse 100, rather sharp. Tongue slightly furred on the dorsum. Ordered pil. sapon. c. opio. gr. v. vespere sumend.

January 24.—She slept four hours during the night. Countenance flushed. Skin hot and dry. Pulse 114, sharp. Tongue thinly furred. No vomiting. No action of the bowels. No pain or abdominal tenderness, except around the wound. She has taken a little arrowroot in milk. No thirst. Ordered cataplasma lini abdomini. Pil. saponis c. opio gr. v. hora somn. sumend.

January 25.—She slept well, and feels more comfortable and refreshed. She says, if she could be raised, she thinks the bowels would act. Her wish was complied with. The dressings were removed, and the wound looked well, although slightly inflamed at the edges. Ordered catapslasma lini. At eight p m. the bowels were scantily relieved. She then slept; and during the night three or four more evacuations were passed.

January 27.—She has continued to improve, but to-day she complains of some uneasiness in the right iliac region. Upon examination, the colon appears occupied by hardened masses of fæces. Ordered hirudines vj. parti dolenti applic. Liquor. opii sedat. ♏ xx. vespere sumend.

January 28.—She feels more comfortable. No action of the bowels. Ordered enema amyli ʒ iv. c. tinct. opii ♏ xv.

January 29.—The enema relieved the bowels. It was ordered to be repeated.

February 2.—The bowels have been freely relieved, and she is progressing favourably.

March 10.—She is discharged, being provided with a truss.

Although chloroform was not administered during the operation, I have ventured to relate this case as an excellent example of the success attending the after-treatment which was adopted. (See remarks.)

Remarks.—The advantages derived from the administration of chloroform are by no means confined to the suspension of pain, and most of the accompanying cases serve well to illustrate the benefits to be obtained from its employment in the treatment of hernia. It is chiefly for this purpose that they have been selected. To these cases I might have added many more, but those which have been already brought forward as examples are sufficiently numerous. They represent a great number of most important cases. In the first four, it will be seen that the hernia was reduced while the patient was under the influence of chloroform, without any operation. In the sixth, the effects of chloroform were continued after the operation, and were followed by the happiest results.

When a patient is fully under the influence of chloroform, he is in a condition very favourable for the reduction of an hernia by taxis. All the muscles are completely relaxed, and pain being suspended, no resistance is made to the necessary manipulation. We gain, at once, indeed many of the advantages belonging to other and older plans of treatment, *e.g.*, tobacco enema, venesection, &c., without any corresponding evils. The chief good effects of the warm bath are here also produced; and this is the more important, as this valuable adjunct in the treatment of hernia—except in hospital practice—is often only obtained with great difficulty, and after considerable delay. Indeed, it appears from numerous observations, that the use of chloroform in the treatment of hernia is attended with decided advantages over all other means which can be employed. For example, in three of the four cases related, chloroform succeeded after the warm bath (hitherto considered as our most useful auxiliary) had failed. Doubtless, the value of chloroform, under these circumstances, is mainly dependent upon the complete muscular relaxation induced; and this is a point to be particularly attended to. Every surgeon is aware, how forcibly attempts at reduction by taxis are opposed by the violent, in some cases almost spasmodic-contraction of the abdominal muscles; indeed, the same cause that expels the intestine from the abdomen, still acts to prevent its return. No means with which we are at present acquainted are equal to chloroform in producing complete muscular relaxation without danger or delay. But the objections to its employment in cases of hernia are not to be overlooked, and the more so, as by judicious management, they may be often overcome. The two principal are (1) the violent muscular exertions which often occur during its administration, and (2) the sickness which sometimes accompanies returning sensation. The former of these evils may generally be avoided by the observance of due care in its administration. If given very gradually at the commencement, and if no attempts are made to compel the patient to inhale, in spite of alarm, and the chloroform be pure, and if, subsequently, when the muscular actions which generally precede total insensibility commence, its administration be effectually continued without intermission or delay, we shall generally succeed in producing the full effects of chloroform, without the severe struggling which frequently occurs. The second evil, sickness, is much less within our control; the condition of the stomach is generally the cause, sickness usually following when chloroform is administered shortly after a meal. We can only look to the quality of the chloroform; this and many other effects, as coughing, etc., often depending on slight impurities.

It has been stated, that the inhalation of ether produces more decided muscular relaxation, and is, therefore, preferable, in cases of hernia and dislocation, to the use of chloroform. Now, ether is much less powerful, and, therefore, much less rapid

in its action, than chloroform; consequently, when inhaled, it enters the system more gradually. This may explain the more decided effects which are said to result from the use of ether; and it reminds us of the advantage to be obtained from the gradual and cautious administration of chloroform, more especially at the commencement of the process. The difference observed between the effects of ether and chloroform appears to be, in a great measure, due to their relative strength.

From the observation of a considerable number of cases, it appears to me, that many of the unpleasant complications, especially struggling, which often attend the administration of chloroform, are, to a great extent, dependent on the instrument employed. In this, as in most cases, the simplest plan is the best. It seems that chloroform can be administered in every respect most advantageously by means of a handkerchief or a piece of lint. All instruments appear to be more or less objectionable, perhaps in direct proportion to their complexity. The prejudice which generally exists against the use of the handkerchief arises from its supposed danger. In the hands of a careless or incompetent person, some of the instruments which have been contrived may possibly be employed with less risk of danger, but such persons are not justified in administering chloroform under any circumstances, and, with ordinary care, the use of the handkerchief is at least as safe as the employment of a more complicated instrument. These opinions are held by some of the most eminent surgeons. Another objection urged against the use of the handkerchief is, that chloroform is wasted in this way. With a little care this may be, in a great measure, avoided, and even allowing this objection its full force, it is but a trifling one. It has been said, that when chloroform is administered on a handkerchief, so much escapes that the atmosphere of the room becomes unpleasantly impregnated. This may happen when the exhibition is prolonged for some considerable time, but under such circumstances the same objection applies to instruments. It has also been objected to the handkerchief, that we cannot estimate so exactly the quantity of chloroform inhaled, as some is lost by evaporation. This objection applies equally to all instruments from which the vapour of chloroform can escape. But the chief point to be attended to in the administration of chloroform is not the quantity consumed, but the effects produced. Women and children are often alarmed by the sight of any instrument; however simple it may really be, it appears to them mysterious. This is no trivial objection. They will readily inhale chloroform when merely dropped upon their handkerchief. So far as my observations extend, many of the disagreeable circumstances which often occur when an instrument is employed, such as struggling, shouting, coughing, congestion of the face, etc, seldom arise when a handkerchief is used. In cases of hernia, more especially, this is a great point to be attended to.

It is important that the administration of chloroform be continued till muscular relaxation is fully induced before taxis is employed. If attempts at reduction are made while the muscles are tense, more harm than good results from its use. On the other hand, we must be mindful not to continue our efforts at reduction, during the insensibility produced by chloroform, for an undue length of time. The patient, being unconscious, can give us no warning by his complaints that we are pressing our attempts at reduction too far, and, in our anxiety to succeed, we may overlook the time and force employed.

If such attempts at reduction are unsuccessful, should the operation, supposing it be deemed necesssary, be at once performed without allowing consciousness and sensibility to intervene? The advantage of this plan is, that we spare the patient a second administration of chloroform; the objection to it is, that we must then prepare our patient beforehand for the worst, and thus sometimes needlessly alarm and distress him. Perhaps the circumstances of the case may be our best guide. When there is a fair chance of success we may atempt reduction under chloroform without distressing him by the idea of an operation; when, on the other hand, our chances of success by taxis are small, we may prepare him at once for the worst, and employ chloroform as a preliminary to the operation, if that should become necessary.

The good effects derived from chloroform are not at an end when an operation is required. The pain and consequent terror of this proceeding is abolished by its use. But the preservation of life is more important than the annihilation of pain, and perhaps the happiest effects of chloroform in hernia are witnessed in the results which often follow its administration. It would perhaps be difficult to mention any event which the surgeon hails with greater pleasure, after an operation for hernia, than the supervention of natural sleep. Indeed, to procure sleep after an operation is often an indication of no mean importance to be fulfilled. Calm and prolonged sleep is often the precursor of a rapid recovery. It may be said, indeed, that sleep thus appear beneficial because it only occurs in the absence of any bad complication; but after making every allowance for this fact, many cases most unequivocally demonstrate the advantages of sleep, after an operation for strangulated hernia. Such sleep often follows when chloroform is employed. It is frequently promoted, nay sometimes induced by it. The patient does not appear to awake from the effects of chloroform, and a natural sleep without the intervention of consciousness, seems to succeed the artificial one. Of this the case of Timothy Spillman (No. 6) is a striking example.

The plan of urging the bowels to act immediately after the operation, by the exhibition of saline purgatives and other means, is one which is less in favour with surgeons at the present day than formerly. If, indeed, we consult treatises on hernia by the highest authorities, we shall find this treatment generally recommended, but the practice is certainly on the decline. As a general rule, is it not a better plan to leave the patient at rest after an operation, administering only some opiate, if necessary, to induce sleep, if this cannot be procured more simply, and afford time and chance for a natural action of the bowels? The operation is the great step taken to obtain this relief. The length of time after the obstacle has been removed at which the bowels act spontaneously, is sometimes remarkable, and the good effects of waiting patiently are often no less striking. The last three cases are selected as examples; in that of Martha Jenner (No. 5) no action of the bowels occurred till six days after the operation had passed, and they were then relieved spontaneously. Is it not better to await the efforts of nature after an operation, until some indication to the contrary appears? and, if aid be required, should it not be administered in the gentlest manner, and by means such as enemata, castor oil, etc., which will accomplish the task with the least possible amount of irritation or disturbance? Complications, when they exist, are of course to be met by appropriate measures; but are not these best avoided, and recovery promoted, by assisting rather than by anticipating natural efforts?

MEDICAL NEWS.

Announcement.—A General Meeting of the Profession in Ireland will be held, on Tuesday next, the 7th of June, to consider the working of the Medical Charities Act, as many serious causes of complaint exist, and much dissatisfaction is felt by the vast majority of those who hold appointments under the Irish Poor-law Boards. The proceedings of this important meeting will be specially reported for our next Number.

Oxford and Cambridge.—University Reform.—In the House of Commons, on Tuesday, Mr. Heywood gave notice, that, on the 28th of June, he would move for leave to bring in a Bill to promote the intellectual and moral education of the students, and to simplify academical forms at matriculation, and on taking the first, or Bachelor's degrees in Arts, Law, and Medicine, in the Universities of Oxford and Cambridge.

Oxford.—The Fielding Herbarium.—In an address to the members of the University, by Dr. Daubeny, delivered on the 20th of May, at the commencement of Act Term, and on the completion of the arrangements for receiving the Fielding Herbarium, the Professor states, that by the aggregate of the treasures comprised in the Herbarium, consisting, as it does, of one of the most extensive and valuable collections of dried plants that exist in Europe, accompanied by a very valuable library of botanical works, the botanical student at Oxford is offered opportunities of information—being also in the proximity of a botanic garden—such as scarcely any other place can afford. Thanks, too, to the assiduous care of Mr. and Mrs. Fielding, in mounting and arranging the plants, the whole collection is in beautiful preservation and easy of reference.

University of London.—A Deputation from the University of London, consisting of the Chancellor, Vice-Chancellor, Sir James Clark, Sir Stephen L. Hammick, Mr. Warburton, and Dr. Billing, had an interview with Viscount Palmerston, on Monday, at the Home Office.

Enfranchisement of the London University.—On Tuesday, in the House of Commons, petitions were presented from Fakenham and Darwen, in favour of granting members to this University.

Royal College of Surgeons.—The following gentlemen having undergone the necessary examinations for the diploma, were admitted Members of the College at the meeting of the Court of Examiners, on the 27th ult.:—

Aldridge, John Henry, Christchurch, Hants.
Beaman, Ardern Hulme, King-street, Covent-garden.
Bradbury, James Oughton, Manchester.
Cardozo, Samuel, Redruth, Cornwall.
Fitzgerald, Francis Lewis, Cheltenham.
Hardy, Henry George, North Shields.
Hope, George Henry, Seaforth, Lancashire.
Kennett, Napoleon, Shoreditch.
Mackereth, Michael, Guisborough, Yorkshire.
Tippetts, Alfred Malpas, Islington.
Walker, John Harrison, Australia.
Williams, Hutchins, India.

At the same meeting of the Court, Mr. Dugald M'Ewan, a member of the Edinburgh College, passed his examination for Naval Surgeon.

The following gentlemen were admitted members of the College on the 30th ult.:—

Croft, Robert Charles, Wimbledon, Surrey.
Hewlett, Thomas Gillham, Hon. East India Comp. Serv.
Hoar, William, Portsmouth.
Ley, Henry Rooke, London.
Monday, James Rawlings, Olverton, Gloucestershire.
Petters, John Jones, Anglesey, Wales.
Thomas, Richard, Llanelly, Carmarthenshire.
Thomas, Frederick John, Park-terrace, Islington.
Thornton, Augustus Willoughby, Dublin.
Turle, James, Richmond Villa, Holloway.
Wilson, George Clarke, Dublin.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, May 26, 1853:—

Moreton, James Earl, Marton Hall, Cheshire.
Mais, John Ivy, Catterick, Yorkshire.
Cunliffe, Robert Anlezark, Garstang, Lancashire.
Ryott, William Hall, Thirsk, Yorkshire.
Bourne, Richard Carmichael, Dublin.
Blackett, William Cuthbert, Durham.

APPOINTMENTS.

Military.—17th Foot: Surgeon William Cruickshank, M.D., from the 52nd Foot, to be Surgeon, vice Cowan, who exchanges; Surgeon Thomas Cowan, M.D., from the 17th Foot, to be Surgeon, vice Cruickshank, who exchanges.—To be Assistant-Surgeons: Assistant-Surgeon William Cameron, M.D., from the Staff; Assistant-Surgeon Thomas William Fox, M.B., from the Staff; Assistant-Surgeon Grahame Auchinleck, M.D., from the 80th Foot; Assistant-Surgeon Donald Sinclair Smith, from the 38th Foot.—Gold-Coast Corps: Assistant-Surgeon Peter Henry Roe, from the Staff, to be Surgeon, vice Kehoe, deceased.—Hospital Staff: William Beale Wallis, gent., to be Assistant-Surgeon to the Forces, vice Fox, appointed to the 52nd Foot.

Militia.—2nd Duke of Lancaster's: William Hargreaves Manifold, gent., to be Ensign and Assistant-Surgeon.—Tower Hamlets: George Alexander Falconer, gent., to be Assistant-Surgeon and Ensign.—4th or Royal South Middlesex: George Francis Cooper, Esq., M.D., to be Assistant-Surgeon.

Naval.—Surgeons Alexander Muirhead, M.D. (1838), from the Excellent, gunnery ship, at Portsmouth, to the St. Jean d'Acre; William W. Baynes (1844), to the Sybille; Patrick Digan, M.D. (1851), recently serving in the Cleopatra, on the East Indies station, to the Brisk; Assistant-Surgeons Charles D. (1845) and James Sproule (1851), from the Scorpion, to the St. Jean d'Acre; Robert Wallace, M.D. (1845), recently serving in the Dauntless steam-frigate, to the Sybille; W. H. Adams (1853), to the Brisk. Mr. Swincy, who was an Assistant-Surgeon on board the Highflyer, in the West Indies, when yellow fever raged on board, has been appointed, by the Admiral of the West India Station, Surgeon on board the Eclipse, for the courage and skill he displayed in attending to the sick and dying on board that ill-fated ship.

Geological Society.—The following papers were read at the meeting of the Society on Wednesday evening:—1. "On the Erratic Tertiaries of the Eastern and Western Sides of England, and their Southern Termination;" by J. Trimmer, Esq., F.G.S. 2. "On the Geological and Glacial Phenomena of the Coasts of Davis Strait and Baffin's Bay;" by Dr. P. C. Sutherland.

DEATHS.

Foote.—March 10, at sea, lat. 29° 58′ S., long. 34° 24′ E., on board the Columbus, Alfred Foote, Esq., M.R.C.S. Lond., in his 40th year, after five days' suffering from rheumatic fever. This gentleman was formerly in practice at Kew, Richmond.

Kirby.—May 26, at Newtown-house, Rathfarnham, John Kirby, Esq, LL.D., F.R.C.S.I., Consulting Surgeon to the Coombe-street Lying-in Hospital; formerly Surgeon to St. Peter's and St. Bridget's Hospital and Jervis-street Infirmary; Lecturer on Anatomy and Surgery at the Peter-street School of Medicine; Professor of the Practice of Physic to the Royal College of Surgeons, Ireland; Member of the Dublin Surgical Society; Author of "Kirby's Surgical Works."

Lawson.—March 6, at Donabew, Bengal, Surgeon Lawson, of the H.E.I.C. steamer Proserpine.

Lemercier.—At Amiens, aged 84, M. le Docteur Lemercier.

Ponsford.—May 30, at Exeter, John Ponsford, Esq., surgeon, formerly of Moretonhampstead.

Travers.—March 20, at Mossell Bay, South Africa, aged 37, Joseph Travers, Esq., F.R.C.S.

Death of Mr. Sidney, of Southampton.—The Southampton coroner's jury, which for the last fortnight have been deliberating on the death of Mr. Sidney, a naval surgeon, the particulars of whose death in Southampton have already appeared in the *Medical Times and Gazette*, have decided on their verdict, which is—"That the deceased died by taking prussic acid, but there was no evidence to show whether the deceased was in an unsound state of mind, or whether death resulted from an overdose." Dr. Osborn, a Southampton physician, who analysed the contents of the stomach of deceased, stated on the inquest, that he had extracted from the contents eight times the ordinary dose of prussic acid, and that he could have extracted more.

Medical Reform.—On Monday and Tuesday, in the House of Commons, Petitions were presented by Lord D. Stuart, from members of the Medical Profession residing in Paddington; by Sir C. H. Coote, from the Poor-law Guardians of Roscrea; by Mr. M'Mahon, from the Board of Guardians of Rathkeale, Limerick; by Mr. Phinn, from Medical men practising at Bath; by Mr. E. Ball, from Wisbeach, signed by John Lilley, surgeon; by Mr. Milner, from the Yorkshire Branch of the Provincial Medical and Surgical Association; and by Mr. Craufurd, from members of the Medical Profession at Alford, Lincolnshire, and at Shrewsbury; also by Mr. Macaulay, from Edinburgh, in favour of Medical Reform.

London Medical Reform Committee.—A meeting was held on Tuesday night, at the Freemasons' Tavern, Dr. Lankester in the chair. A letter was read from Lord Aberdeen, in which His Lordship stated that Her Majesty's Government were alive to the importance of the question of Medical Reform. It was recommended that all medical men interested in the passing a Medical Reform Bill this session should immediately write and urge upon their Parliamentary representatives the importance of being present at a Deputation to support the London Committee on this occasion.

James Luke, Esq.—An admirable and most life-like portrait has just appeared of the Senior Surgeon of the London Hospital, skilfully drawn on stone, and printed on India-paper, forming an excellent addition to the series of distinguished living medical men publishing under the superintendence of Mr. T. M. Stone, of which we have before spoken in terms of deserved commendation.

St. Mary's Hospital.—The Third Anniversary of this Institution was celebrated on Saturday last, by a public dinner at the London Tavern, at which a numerous body of the friends and supporters of the hospital attended. The Earl of Carlisle, who presided, stated that, from the opening of the hospital on the 13th of June, 1851, to the 30th of April in the present year, there were treated, as in-patients, 2021; as out-patients, 5599; as casualties, 3030; and 417 poor married women were attended in their confinements at their own homes; making a total of 11,067 persons to whom the benefits of the hospital were extended in a year and ten months. The estimated cost of maintaining the hospital with its 150 beds, and of supplying medicine to the daily increasing out-patients, was 5500*l.* per annum; but the amount of annual subscriptions received for those purposes in 1852 amounted only to the sum of 1710*l.* 7s. 6d., and he was sorry to add, that there remained liabilities to the amount of 2030*l.* to be provided for. The list of donations announced during the evening amounted to 1850*l.*, and included sums of 105*l.* from Mr. J. Cunliffe, 100*l.* from Mr. G. Bird, 21*l.* from the Earl of Manvers, who was present, and 21*l.* from the noble Chairman.

St. Mark's Hospital.—The anniversary festival of this Institution took place on Monday, under the presideney of the Lord Mayor. The list of subscriptions announced, amounted to upwards of 800*l.*

Hospital for Consumption and Diseases of the Chest.—The anniversary festival of this Institution was held on Wednesday, at Willis's Rooms, the Marquis of Westminster in the chair, who stated, that the total number admitted during the last year was 443—292 relieved, 61 died in the hospital, and 90 remaining in the wards; out patients treated, 3671; total number relieved since the opening, 23,886; receipts, (1852,) 9900*l.* The aggregate of the sums announced during the evening was about 2000*l.*

Bradford Infirmary.—Henry Harris, Esq., Treasurer of this Institution, has received the sum of 164*l.* 11s. 9d., the proportion of the proceeds of the late gala in Manningham Park, which falls to the share of the Infirmary.

Testimonial.—Last week, some of the members of the Board of Governors of the Cheltenham General Hospital, and their friends, presented to David Hartley, Esq., the house-surgeon, a chaste and handsome silver salver, which bore the following inscription:—"To David Hartley, Esq., house-surgeon and honorary secretary to the Cheltenham General Hospital, presented as a slight token of their personal regard, by the members of the Quarterly Board of Governors and their friends, who have for many years had the pleasure of witnessing the ability, kindness, and attention with which he has discharged his important duties, as well towards the poor as for the benefit and general interests of the Hospital. March, 1853."

Mr. Maclise has been elected an honorary member of the Pennsylvania Academy of Fine Arts.

Dr. Thomas Del Coralz has been commanded to repair to Aranjuez, to watch over the Spanish Queen's health, she being pregnant.

The Abortion Case.—The prisoners in this case have been fully committed, Currie being admitted to bail.

Pharmaceutical Society.—A Deputation of the members of the Pharmaceutical Society of Great Britain, and Mr. C. H. Collette (solicitor), had an interview with Viscount Palmerston, on Monday, at the Home Office.

Mr. Robert Edwards, a medical student, jumped into the Clyde on Saturday, to rescue John Macfarlane, a calico printer, from drowning, but was grasped so tightly by the man, that they both perished.

Yellow Fever.—West Indies.—By the last advices, yellow fever was prevailing in Kingston. The La Plata arrived at Southampton on the 30th. On casting anchor this morning, the vessel was visited by Mr. Wiblin, the medical superintendent of quarantine, who elicited, that since the 7th instant, when yellow fever broke out on board, fourteen cases had occurred, three of which terminated fatally. The last case, which occurred on the 24th inst., was that of George Mundon, who died on the 30th. Immediately after the conclusion of the investigation, the mails were landed, but the ship was detained in quarantine till Mr. Parrott, the collector of customs, had communicated the facts to the Privy Council Office. In answer to this application, orders were speedily transmitted from London to release the passengers at once, but the ship was detained in quarantine till the afternoon, in order to complete the stipulated six days from the outbreak of the last case, which occurred on the 24th instant. Sir William Pym, the Inspector-General of Quarantine, arrived in the afternoon of the 30th, and went on board La Plata, to decide what was to be done with the cases of fever yet remaining. The yellow fever had disappeared in British Guiana, but small-pox in a mild form still continued. In Trinidad and Dominica it was very rife.

The Small-pox and Cholera had made their appearance at Vera Cruz, and a considerable number of cases had occurred.

Cholera—The cholera had broken out again in Sibuga, Natal, and Batang.

Hydrophobia.—Java papers say, that, in the province of Menado, hydrophobia raged to a fearful extent. In two districts alone, not less than 219 mad dogs had been destroyed, and 45 persons bitten. Numerous pigs had also gone mad. The malady is there attributed to the volcanic temperature arising from recent earthquakes.

Sanitary Arrangements of the Swedish Government.—Stockholm, May 7, 1853.—"St. Petersburg and Cronstadt are held to be infected with cholera, and vessels from those ports are subjected to ten days' quarantine, counting from the day of departure. All other Russian ports in the Baltic are held to be suspected of cholera, and vessels coming from them are subject to seven days' quarantine, counting from the day of departure. On the other hand, the regulations of last year, subjecting vessels from other ports in the Baltic to visits from health officers, and requiring them to produce bills of health, are rescinded."

The Aquatic Vivarium, Regent's Park.—On the borders of the flower-bed in the Zoological-gardens, Regent's-park, has been constructed, of glass and iron, a building 60 by 20 feet in area, containing 14 6-feet tanks of plate glass. Of these, six are ready for exhibition. They enclose masses of sand, rock, gravel, corallines, sea-weed, and sea-water; and are abundantly stocked with crustacea, star-fish, sea-eggs, actinias, ascidians, shelled and shell-less molluscs, and fish of the genera *gasterosteus*, *labrus*, *crenilabrus*, *blennius*, *gobius*, and *cottus*. The *algæ*, which serve at once as ornaments and shelter for the animals, and as purifiers of the water, appear to bear their new situation as well as the lively zoophytes, and no difficulty has presented itself, so far, to the conservation of both. The collection is altogether from the British seas, but the building is so constructed as to be capable of being enlarged, and the Society does not despair of exhibiting some of the more striking tropical and intertropical forms of invertebrate animals. The most complete portion of the collection are the *Actinias*, among which the specimens of *A. dianthus*, *parasitica*, *crassicornis*, are truly magnificent. The rare *Adamsia palliata*, *Actinia nivea*, and *A. miniata*, are also objects which merit more than passing attention. The shelled molluscs are at present indicated rather than represented; but the vivacity displayed by the *pectens* and *littorinæ* are a sufficient guarantee for what may be done with them hereafter. The star-fish appear to be rather more difficult in treatment, but among those displayed in the tank appropriated to them are two fine specimens of *palmipes membranaceus*. *Echini* are not unfrequent, and gorgeously coloured *ophiocomas* and *solasters* brighten up the dark stones and shaded recesses of the *algæ* with an effulgence which is irresistibly charming. A few *holothurias* complete the series of this division of the British *radiata*, which the work of Professor Edward Forbes has rendered more popularly known than any other. The *crustacea*, too, which occupy the adjoining tank, are as numerous in species as they are lively in action. The tanks, visible on both sides, afford 390 square feet of view, and contain seven tons of sea-water. Of the marine fish, of which the blennies and cotti are almost always at the bottom, it may be said that their habits are being now, for the first time, investigated with success. This exhibition of living fish and invertebrates, besides exciting much curiosity, will be of most impressive usefulness to the student, to whom they have been only known hitherto by books and dried remains.

Pleuro-Pneumonia in Cattle.—Inoculation.—Dr. Willems, of Belgium, recently announced, that he had discovered the means of greatly reducing the mortality from pleuro-pneumonia, if not of entirely arresting its progress, by inoculating healthy animals with matter from the lungs of one that had died of the disease; and very extensive experiments have been made to test the reality of the remedy. Professor Simonds, of the Veterinary College, having been deputed by the Royal Agricultural Society to investigate the supposed discovery, and having visited Belgium, and made extensive inquiries on the subject, has made his report, from which it appears that the prevention of pleuro pneumonia by inoculation is, to say the least, doubtful. In 1850, Dr. Willems having failed to arrest the disease by medical treatment, tried inoculation as an experiment, and has convinced himself of its success. The practice, too, is becoming general throughout the kingdom. A Dr. De Salve has also been extensively engaged in inoculating cattle in Rhenish Prussia, but with such ill success that the Government has ordered inoculation to be discontinued. The Belgian Government, however, takes a lively interest in the subject, and has instituted a series of experiments, which probably ere long will decide the question as to the value of the practice of inoculation. The disease produced by inoculation is said to be local only, and not to affect the lungs, the seat of the natural distemper. "About two per cent.," says Mr. Simonds, "of the inoculated animals die, while a far greater proportion suffer from ulcerative and gangrenous inflammation of their tails, notwithstanding which the lungs, the local seat of the natural disease, we are assured, never suffer. If experience proves this to be true, it must be regarded as a new fact in medicine." And he mentions that, in 1757, Dr. Layard, a celebrated physician of that day, wrote an essay, recommending the inoculation of cattle to prevent deaths from a destructive malady which then prevailed in this country. Some distillers in Hasselt, who objected to inoculation, had their cattle-sheds quite free from the disease; and, while inoculated animals placed among a diseased herd are stated to have escaped, there have also been others, non-inoculated cattle, in the same situation, which have been equally exempt. Dr. Willems

does not admit a single failure of inoculation; but, from other persons, Mr. Simonds received very contradictory accounts. To himself, none of the operations he witnessed appeared to be satisfactory. With the aid of several members of the Royal Agricultural Society, Mr. Simonds is about to undertake experiments in this country, in order to test the value of inoculation as a preventive of pleuro-pneumonia.

Mortality Notabilia.—The returns of mortality do not yet indicate that improvement in the public health which may have been anticipated from the more favourable character of the weather. The following are the deaths registered in London in each week of May: 1159, 1099, 1098, and, in the week that ended last Saturday, 1128, showing a small increase in the present on the two preceding returns. The mean weekly temperatures of the month have been 47·9°, 45·3°, 55·2°, and 59·7° In the ten weeks corresponding to last week, of the years 1843-52, the average number of deaths was 890, which, if raised in proportion to increase of population, will give a mortality for last week of 979. The actual result is therefore in excess of the estimated amount by 149. Diseases of the nervous system appear to have supplied more than the ordinary contingent; for 155 cases are found in this class, while the average is 120.

Meteorology.—At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·696 in. The reading ing of the barometer decreased from 29·96 in. at the beginning of the week to 29.45 in. by noon on the 26th, and increased to 29·60 in. by the end of the week. The mean temperature of the week was 59·7°, which is 4·7° above the average of the same week in 38 years. On Thursday and Friday, when the temperature was highest, the mean was about 64°, and 8° or 9° above the average. The highest temperature was 78·8°, on Friday; the lowest, 41·6°, on Sunday. The wind blew from the north-east on the first four days, it was calm on the two following, and on Saturday it blew from the south-west, the only day on which the mean temperature was below the average. The mean difference between the dew-point temperature and air temperature, was 10·9°; the greatest was 17·6°, on Sunday and Thursday; the least, 1·1°, on Friday.

Mortality in Public Institutions for the week ending May 28 :—

	Males.	Females.	Total.
Workhouses	66	68	134
Military and Naval Asylums ..	8	..	8
General Hospitals	21	23	44
Hospitals for Special Diseases .	2	2	4
Lying-in Hospitals	3	..	3
Lunatic Asylums	9	4	13
Military and Naval Hospitals..	4	4	8
Hospitals and Asylums for Foreigners	1	..	1
Prisons	3	..	3
	117	101	218

DEATHS *in the Metropolis for the week ending Saturday, May* 28, 1853.

Causes of Death.	May 28.				Sum of Ten Weeks.
	0	15	60	All Ages.	
All Causes	505	372	220	1128	8897
Specified Causes	503	371	220	1093	8846
1. Zymotic (or Epidemic, Endemic, and Contagious) Diseases ...	152	49	28	229	1908
Sporadic Diseases:					
2. Dropsy, Cancer, and other Diseases of uncertain or variable seat ...	3	19	16	38	420
3. Tubercular Diseases	98	131	6	235	1852
4. Diseases of the Brain, Spinal Marrow, Nerves, and Senses ...	67	53	34	155	1086
5. Diseases of the Heart and Blood-vessels	1	29	15	45	370
6. Diseases of the Lungs and of the other Organs of Respiration ...	81	28	53	162	1159
7. Diseases of the Stomach, Liver, and other Organs of Digestion...	22	25	14	61	591
8. Diseases of the Kidneys, etc. ...	1	5	9	15	90
9. Childbirth, Diseases of the Uterus	...	8	1	9	90
10. Rheumatism, Diseases of the Bones, Joints, etc.	2	4	1	7	87
11. Diseases of the Skin, Cellular Tissue, etc.	1	1	...	2	20
12. Malformations	4	...	...	4	45
13. Premature Birth and Debility ...	24	6	...	30	218
14. Atrophy	28	1	3	32	165
15. Age	...	...	34	34	435
16. Sudden	4	1	1	7	79
17. Violence, Privation, Cold, and Intemperance	15	11	5	33	231
Causes not Specified	2	1	...	30	51

TO CORRESPONDENTS.

We are requested to call the attention of our readers to the following: The title of Mr. Yearsley's paper, published in our last Number, should be, "Ought the Tonsil or Uvula to be Excised in the Treatment of Deafness? Certainly not. Ought the Enlarged Tonsil or Elongated Uvula to be Excised in the Treatment of Deafness? Undoubtedly, and for the Reasons which follow." It will be seen that this heading renders the commencement of Mr. Yearsley's paper more clear and distinct.

Dr. C. P. Wilmott, Bath, inquires if there is any prospect of the valuable lectures just delivered at the College of Surgeons by Professor Owen being published? We agree with our correspondent, that their publication would be a great satisfaction to many scientific men.

John B. Cowon, Esq., Glasgow.—Declined with thanks.

Ignoramus will find, on inquiring of any hospital student, that there is a great difference between a Dresser and a House-Surgeon. The latter is always a qualified Practitioner, usually a member of the College of Surgeons, and has the entire charge of the patients in the absence of surgeons and assistant-surgeons of the Hospital. A Dresser is merely a student who dresses wounds, draws teeth, bandages broken limbs, and so forth, under the direction of the House-Surgeon.

We regret that we are unable to answer the question of *A Young Practitioner* with any degree of certainty, but we think that he cannot deduct the expenses of his horse and gig under the circumstances he mentions.

A Country Fellow will find on reference to our recent articles on the Collage of Physicians, that we have already exclaimed against the injustice of allowing this body to grant Degrees in Medicine. It is, indeed, the only part of the New Charter to which we object, now that the College has agreed to certain alterations with regard to the Extra-Licentiates. We fear there is no hope of the Government expunging the objectionable clause, as it was introduced into the Draft Charter at the request, nay, almost the command, we have been informed, of Sir James Graham. Under these circumstances, it is unnecessary to publish our Correspondent's letter.

A Student in Natural History will find the best account of the Acalephæ or Sea-nettles, in the monograph of Professor Forbes. The Medusæ abounding in the Southampton waters, do not possess the power of stinging. This function is possessed probably by only a few species. The Cyanea capillata, which is a terror to bathers, possesses it in a remarkable degree.

W. H. S., Hyde-park, states, that a surgeon in extensive practice is in the habit of meeting homœopaths, and other quacks, in consultation. We believe, and we certainly sincerely trust, that our correspondent is misinformed.

F.R.C.S.—The College of Surgeons will be closed, we believe, for about three months, in order that the Library, Museum, and other parts of the building, may be re-painted and decorated. Some inconvenience will, of course, result to gentlemen who frequently use the books in the Library, but we do not see how it can be avoided.

A Subscriber to the South Staffordshire Hospital is informed, that we are much happier in promoting reconciliations, than in exposing the quarrels and petty disputes of medical practitioners. We have received both the circulars alluded to, and think it inexpedient—to say the least—to give them more publicity than they have already obtained.

M.B. Lond.—A new edition of the work mentioned will soon be published. The second part of the second volume of Pereira's "Materia Medica," is being prepared by Dr. Owen Rees.

Germanicus.—1. The preliminary Examination in Classics and Mathematics is intended to supersede the old Examination in Celsus and Gregory. 2. If the Student pass the former Examination, he will not be subject to any other Classical Examination, except the Pharmacopœia Londinensis and Physician's Prescription. 3. This question is answered in Nos. 1 and 2.

Charles F. C.—The case is not very clearly put, but, as far as we can understand the question, the reply would be in the negative.

COMMUNICATIONS have been received from—

J. Fremlyn Streatfield, Esq., London Hospital; Germanicus; B. Brodhurst, Esq., Orthopædic Hospital; A Country Fellow; A Young Practitioner; — Reeves, M.D.; Henry Smith, Esq., Caroline-street, Bedford-square; Ignoramus; Spence Bate, Esq., Plymouth; Dr. Wilmott, Bath; James Yearsley, Esq, Savile-row; — Tucker, Esq., Epidemiological Society.

Coffin Practice.—Thomas Clarke, a pilot, aged 53, died recently at West Hartlepool, after treatment by a practitioner said to be of the Coffin school, who promised to "make another man of him," and gave him heroic doses of medicine. The masterpiece, he said, of the complaint was wind; and he administered jalap, Cayenne pepper, and gin—a dramglassful every morning. Mr. Atkinson, of West Hartlepool, said, "the medicine could do no good; it induced vomiting, purging, and debility, and would in that way directly hasten the rupture." Nevertheless, the jury returned a verdict of "Natural Death," and the quack got off.

ORIGINAL LECTURES.

CLINICAL LECTURE

ON

WOUNDS OF BLOODVESSELS OF THE LOWER EXTREMITIES.

DELIVERED AT

St. Bartholomew's Hospital.

By WILLIAM LAWRENCE, F.R.S.

When arteries under the calf of the leg are wounded it is difficult to follow the well-founded and generally-received rule, of exposing and securing the injured vessels, even under the most favourable circumstances; that is, if we see the case at an early period, when no considerable swelling has occurred, and the natural relations of the surrounding parts are not obscured by ecchymosis. Frequently we do not know what vessel is wounded, nor the precise locality of the mischief. Sooner or later, and often very quickly, the whole limb becomes swollen by extravasation of blood, while all the soft structures may be lacerated, contused, and infiltrated, with blood. Exploratory incisions, for discovering the injured vessel, would be undertaken with very little chance of success; in such a state of limb, they might be attended with dangerous loss of blood, and would certainly involve the necessity of extensive and deep incisions in the injured parts. Thus we come to the conclusion, that amputation is necessary in some of these cases, in order to prevent worse consequences. An example of this kind is afforded in the case of a patient who, although recovered from amputation of the thigh, has not yet left the hospital.

Case.—VIOLENT CONTUSION OF THE LEG.—RUPTURE OF THE ANTERIOR TIBIAL ARTERY.—AMPUTATION OF THE THIGH.—RECOVERY.

John Connor, aged 43, a labourer, of tolerably stout frame and intemperate habits, was admitted into the hospital on April 5, 1853, about 11 p.m., being at the time very drunk. He was brought in directly from a neighbouring street, where he had been knocked down by a fire-engine, of which one or both wheels had passed obliquely over the back of the leg from below the calf to the knee. The engine weighed 26 cwt., and there were fourteen men on it at the time.

On the next day, the limb, especially in the situation of the calf, was greatly swollen and tense, with slight livid discolorations, giving it a mottled appearance. There was no external injury,—not even a graze. The anterior and posterior tibial arteries pulsated, but so feebly, that some doubt was entertained on the point. Messrs. Archer, on whose accuracy I rely implicitly, verified the fact by feeling, at the same time, one of them an artery in the foot, the other the radial: the numbers corresponded exactly. Thirty leeches were applied in the evening, from increase of pain, which had been considerable during the day.

7th.—Relieved by the local bleeding, which had been copious; but he did not sleep. An opiate at bed-time.

12th.—The limb has been in more or less pain, and he has rested badly. Last night, great aggravation of suffering occurred in the calf of the leg, extending to the ankle and heel, and still continuing. It entirely prevented rest. The limb was now enormously swollen from the ankle to the ham, and as hard as a board. This extreme tension, with severe and unremitting pain, urgently required relief. Accordingly, having found some little yielding to pressure on the external aspect of the limb, I made an incision, six inches in length, from a little below the head of the fibula downwards, and then opened the fascia, which was extremely tense, to the same extent. The divided integuments gaped widely, and the muscles protruded at the slit in the fascia. A small quantity of dark liquid blood flowed from the wound. Thirty minims of tinct. opii at bedtime.

13th. He was easier after the incision, and slept tolerably well during the early part of the night; but pain returned with great severity towards morning, and it still continues in the calf, ankles, and heel. The entire circumference of the limb is swollen, with the same incompressible hardness. Pulse 92, small and soft; countenance worn and anxious.

15th. Great and continued suffering, with little rest in the two past nights, although two half-drachm doses of tinct. opii were taken each night. An incision of some inches through the integuments and fascia was made, on the inner side of the limb, where the tension seemed rather less than elsewhere, but with no useful result.

16th. As the formidable mischief in the limb, depending obviously on serious injury of some deep-seated vessel or vessels, continued unrelieved, without any prospect of change, except to a more dangerous condition, amputation was the only means of saving life. With the concurrence of my colleagues, I proposed it to the patient, and performed it with his unwilling assent. The alternative of searching for the wounded vessel, by an incision in the calf, and, if it could not be found, proceeding to amputation, was mentioned. Such a course seemed to me altogether objectionable, as imminently dangerous to life.

The patient was brought under the influence of chloroform, and the limb was then removed by the circular operation. Ecchymosis had extended along the posterior aspect of the thigh, above the situation of the external incision, thickening and hardening the integument and subjacent structures—not, however, so as to interfere with the operation. Being relieved from pain in the part, the patient slept well, and was altogether better on the following day. The support of generous diet and wine required by his state of great weakness agreed well; and the healing process was completed quickly, without any unfavourable occurrence.

Examination of the Limb.—The muscles of the calf were lacerated and bruised to an extraordinary degree, the fleshy masses of the gastrocnemius being very nearly severed about the middle of the muscle. The soft parts covering the upper third of the fibula were in a similar condition. This bone had been fractured transversely, close to its articulation with the tibia; and the sharp edge of the fracture, driven violently against the tibia, had cut across the anterior tibial artery just at its passage through the interosseous ligament.

The posterior tibial vein was partially wounded about the middle of the leg; and there was a coagulum in the orifice. Under the calf and among the injured muscles there was a large accumulation of coagula.

The pulsation of both tibial arteries was felt in this case during the first two days that the patient was in the hospital, but not afterwards. This difference probably arose from the gradual extension of swelling to the foot, the pulse in these vessels having been very feeble previously. The free anastomosis between the anterior and posterior tibial arteries accounts sufficiently for the pulse of the former having been felt on the back of the foot, although the trunk had been completely divided in the leg. We know that pulsation has sometimes returned, through the medium of the collateral circulation, in the sac of a popliteal aneurism, after the femoral artery had been tied. We naturally examine the state of pulsation in the arteries of an extremity when the trunk from which they proceed is supposed to have been wounded. That the continuance of pulsation does not prove that the trunk has not been wounded, is clear from this case, and was shown still more decidedly in one instance observed by Mr. Paget in this hospital. A youth was brought in with an open wound near the middle of the thigh, inflicted a few days before, and attended with profuse bleeding. The femoral trunk beyond the wound, the anterior and posterior tibial arteries pulsated naturally. The return of arterial bleeding on the twenty-first day made it necessary to expose the femoral artery, in which a longitudinal wound was found, not less than one-third of an inch in length.

As the posterior tibial vein was wounded in the case of Connor, the effused blood under the calf probably proceeded from that vessel; for the wound of the anterior tibial artery was towards the front of the limb, while the posterior tibial vessels and nerve were undisturbed in their position behind, so that it was necessary to raise them laterally, in order to trace out the seat of injury. In a patient brought into the hospital under the care of Mr. Stanley, the leg had been seriously damaged by the wheel of a carriage passing over it. There was great swelling, and the case was regarded as severe bruising, with ecchymosis. After some time, inflammation came on and extended, and the patient died. Rupture of the posterior tibial vein was found, with great extravasation under the calf.

Serious consequences, and even loss of limb, may follow

accidents of much less formidable character than that which befel our late patient. Inflammation sometimes supervenes quickly on the injury. It is aggravated, if not excited, by the presence of coagula, and the violent distension of the surrounding structures, bound down by fascia and tendons, and is not only a source of severe suffering, but dangerous from its extent. This kind of mischief is exemplified in the two following cases:—

Case.—PUNCTURED WOUND OF THE LEG.—PARTIAL TRANSVERSE DIVISION OF THE POSTERIOR TIBIAL ARTERY AND VEIN.—REPEATED BLEEDINGS ABOUT A MONTH AFTER THE ACCIDENT.—AMPUTATION OF THE THIGH.—RECOVERY.

William Walby, aged 18, a carpenter, wounded himself with a pointed iron tool which entered above the middle of the leg, about an inch behind the inner edge of the tibia, and penetrated obliquely upwards and backwards to an uncertain depth. Profuse bleeding followed the accident, but ceased spontaneously. A surgeon, who saw him at the time, said, that a large artery was wounded, and that he would lose his limb or his life. When admitted into the hospital on Sept. 26, the limb was swollen and painful; the edges of the trifling wound in the skin adherent.

27th.—He has passed a restless night; the tension and pain are increased; the pulse accelerated; venesection to twelve ounces. Twelve leeches to the leg.

Oct. 1.—Leeches repeated on the 29th. The swelling, which is of incompressible hardness, occupies the whole back of the leg, from the ham to the heel. The heat and pain of the limb prevent rest at night; much constitutional disturbance. Aperients and saline draughts.

6th.—Eighteen leeches were applied on the 4th. The swelling and tension are increased; the glands in the groin enlarged and painful. The leeches, which have always afforded temporary alleviation, to be repeated. They were again resorted to on the 11th and 13th, with merely temporary relief. On the 14th, the pain and distress being very urgent, the limb was carefully examined, when some softness was felt above the puncture, but without fluctuation. An incision was made to the depth of an inch and a-half, but a few drops of blood only followed.

15th.—A good night; the leg less tense, and free from pain.

20th.—The leg becoming softer, and free from pain; good rest at night.

22nd.—A slight discharge of bloody matter from one corner of the incision yesterday; a considerable quantity escaped on enlarging the opening. There is now a copious discharge of matter mixed with blood. Rest at night, with improvement of general health.

24th.—Considerable bleeding took place from the wound yesterday morning, and there has been since an oozing of blood mixed with matter. The opening was enlarged with the hope of discovering the source of hæmorrhage, which was considered to be venous. Faintness followed, and the bleeding ceased. On introducing the finger, a large excavation, of which the boundaries could not be felt, was found under the calf.

26th.—There has been discharge of matter and blood in small quantity. Arterial hæmorrhage took place to-day while I was at the hospital. As no doubt could be entertained that an important artery had been wounded, and was still open, the question occurred, whether an attempt should be made to expose and secure it, or the limb should be removed. This was quickly decided in favour of amputating, for, on his removal to the operating theatre, the patient became so faint, that it was necessary to wait for some time, and give wine freely to restore the circulation. The limb was removed above the knee, wine being administered freely during and after the operation. The pulse had improved, and the patient was better in the evening. He went on favourable, and was able to leave the hospital in December.

Examination of the Limb.—An immense cavity, extending from the back of the knee to within two inches of the ankle, and occupying the entire breadth of the limb, from side to side, separated the muscles of the calf from those immediately covering the tibia and fibula. This cavity contained a large mass, and smaller portions of coagulated blood, together with about a pint of thickish fluid, consisting of blood and matter mixed. When these were removed and the surface washed, it had a reddish appearance, as if inflamed, and was covered by a smooth layer of fibrin. A portion of the coagulum remained adherent to the back of the tibia just above its middle. The adhering basis consisted of fibrin like that lining the sac of an aneurism, and it stuck firmly to the adjacent parts. When it had been forcibly removed, the basis presented a smooth cavity as large as a hazel nut. In the space to which this excavated coagulum corresponded, the posterior tibial artery and vein were seen, each of them about half divided by a transverse wound. The aperture in the artery was of an oval figure, and there was no coagulum, either above or below. The upper end of the vein was closed; but the lower, although containing a recent coagulum, allowed a probe to pass easily.

Case.—LARGE EXTRAVASATION OF BLOOD FROM RUPTURE OF A VEIN, (?) CAUSED BY A FALL ON THE LEG.

Henry Connell, aged 45, a person of temperate habits, was admitted into the hospital January 8, 1827. Although he had always enjoyed good health, he was probably an example of hæmorrhagic idiosyncrasy, having had, ten years ago, profuse bleeding for two days and nights from the socket of a tooth which had been extracted. A fortnight before admission, he struck the front of the leg against the stump of a tree, and fell into a ditch, feeling so little uneasiness at the time, that he continued his usual employment. In the evening of the next day the limb became painful, and in two days more it had swollen considerably, with redness, heat, and tension. He applied to a dispensary, where, in addition to other treatment, he was bled to twenty ounces. On his admission into the hospital, the leg was greatly and equally swollen from the knee to the toes, bright red, and acutely painful. General health not impaired. Feeling fluctuation towards the upper part in the fibular side, the house-surgeon made an incision into the part. About eight ounces of black blood, partly coagulated, partly fluid, escaped, with immediate relief.

January 9.—He slept well, but hæmorrhage came on in the night, requiring the use of the tourniquet. Many ounces of blood were lost. Pulse 60, and weak. No pulsation to be felt in the tibial arteries. From the great swelling and tension of the limb, the hæmorrhage, and the absence of pulsation in the arteries of the leg, my colleague, the late Mr. Earle, and myself, concluded that an important blood-vessel must have been injured; and, as the situation of the injury could not be determined, we thought that amputation might be advisable; to this, however, the patient was not willing to submit at that time.

Cold was applied to the limb; the tourniquet was removed; bleeding continued slightly during the evening.

10th.—Hæmorrhage occurred during the night, to the extent of a few ounces. In order to acquire further information respecting the source of bleeding, I enlarged the opening made at the time of admission, and found, on introducing the finger, that the effusion of blood had taken place under the integuments. The incision was now extended upwards to the ham, and downwards to the bottom of the calf, thus exposing an extensive cavity, from which between one and two pounds of blood, fluid and coagulated, were turned out, but no bleeding vessel could be discovered; a small artery, divided in one of the incisions, was secured. The edges of the wound were loosely approximated, and cold cloths applied to the limb. About three pounds of arterial blood flowed during the evening, from numerous minute orifices, rendering the pulse very slow and feeble. An opiate at bedtime.

11th.—He slept well; slight hæmorrhage in the night, and again this morning; the orifices of the bleeding vessels could not be discovered; as the blood seemed to flow from the upper part of the wound, it was closed by strips of plaster, and subjected to pressure. The leg was elevated by pillows, and covered by wet cloths. The circulation was kept up by wine.

13th.—Hæmorrhage has not recurred, and the limb is quite easy. Copious purulent discharge from the wound. The healing process now went on favourably, and was completed by the end of February.

It seems not improbable, that the injury in this case was rupture of a vein or veins, and that the alarming continuance of bleeding depended on peculiarity of constitution.

[To be continued.]

HISTOLOGICAL ANATOMY
AND
MICROSCOPICAL MANIPULATION.

By Dr. BOON HAYES,

Physician to the Northern Dispensary; Lecturer upon Pathology and Morbid Anatomy at the Hunterian School; formerly Lecturer on Anatomy, Physiology, and Pathology, at the Sydenham College, Birmingham.

PART SECOND.

THE PHYSIOLOGICAL DEMONSTRATION OF THE TISSUES.

LECTURE IX.

SUMMARY: 83. WHITE FIBROUS TISSUE—84. Microscopic Appearance—85. Its Cells—86. Appearance with Acetic Acid—87. ELASTIC TISSUE—88. Appearance—89. FAT TISSUE—90. Its General and Microscopical Arrangement—91. Fibrous Nature of the Concentric Laminæ—92. CARTILAGE—93. Method of Demonstrating the Temporary Variety—94. Nuclei and Nucleoli of Cartilage Generally—95. Permanent Cartilage—96. FIBRO-CARTILAGE.

83. We must now apparently return a little in the course, and consider the histology of certain of the soft tissues.

WHITE FIBROUS TISSUE

is found very extensively in the animal body. In short, its continuity along with certain other structures, forms the basis of "areolar," or, as it is improperly termed, "cellular tissue." I say improperly termed, inasmuch as I have before shown, that all tissue is in some parts of its history, at least—cellular. I need not tell the student, I am sure, where this tissue is to be found: in short, it would be easier to tell him where it is not. Take any portion, then, of the membranous expansion found beneath the skin, and spreading a very thin layer upon the stage-glass of your instrument, proceed to magnify it to the extent of about 250 or 350 diameters, and you will observe,—

84. Transparent bundles and laminæ of filaments, having, for the most part, a wavy appearance,—one bundle running across another, while the filaments of which it is composed remain together, and do not become confused. Moreover, the filaments in each bundle are parallel in the wavy curves, so peculiarly characteristic of this tissue. If, with the needles, you stretch the specimen under inspection, longitudinally, you will find that these curves are destroyed; but that, upon loosening one end, it again returns to its primitive form.

85. It is stated by some, that the cells observable in connexion with the filaments of areolar tissue, are the cells from which it has been formed; this is, however, rather difficult of demonstration, though a legitimate conclusion of analogous reasoning.

86. If you now add a little acetic acid to any one of the specimens, you will observe, that the bundles of filaments swell up, and become, as it were, distended, suffering constriction in parts as if a ligature had been tied round them. This takes place immediately upon the application of the acetic acid, and gives, with the appearances mentioned, the diagnostic mark of "white fibrous tissue," whether separate or in continuity, as areolar tissue. These constrictions, however, introduce to our notice a new element—upon which the acetic acid has no action—namely,

YELLOW OR ELASTIC TISSUE.

87. This, though observed here, cannot be said to prevail in this structure, and is, in short, found in abundance only in the "ligamentum nuchæ" and such-like parts.

The function of white fibrous tissue is to resist tension in any direction without yielding; to be flexible without being elastic. The yellow fibrous tissue is found in those parts which require the *mechanical* property of elasticity; this, as you are aware, is something totally different to muscular contractility, which is a *vital* force. It is found, then, in the ligamentum nuchæ, the ligamenta subflava, the chordæ vocales, in the skin, fasciæ, in blood-vessels, etc. If you wish to see its mechanical properties readily and in perfection, take the "ligamentum nuchæ" of a dog or cat. As long as it is moist, it will stretch like a strap of India rubber, and regain its original form when loosened.

88. Placed upon the stage-glass, it appears very different to the white fibres just described; its individual strips or filaments are shorter than the white fibres; marked by borders well defined, like two dark lines; its ends curl up, and are abruptly broken as it were; are not tapering; it sometimes branches dichotomously, and it is not affected by acetic acid; moreover, its branches anastomose, and form a net-work.

89. ADIPOSE OR FAT TISSUE

is found, in different quantities, all over the body, and is a very beautiful microscopic element. It consists of cells, containing oil or fat. If a specimen be examined immediately after death, this oil is quite fluid, and the cell is perfectly translucent; but, if a long interval of time happen between death and the examination, under ordinary circumstances, a crystalline appearance is observable in the centre of each cell, which is due to the solidification of the margarine.

90. The fat cells, which are tolerably large, are connected in mass by a net-work of areolar tissue, which forms a stroma for their continuity, and, as it were, a *pia mater* for the ramification of the blood-vessels, and of their support. There might thus be made an artificial division of the part of this tissue into *lobes*, *lobules*, and *vesicles*. The lobes are combinations of lobules; the lobules, combinations of vesicles; and each vesicle, as to its individual membrane, is supplied with a capillary ramification. The cells, which are, for the most part, oval, will differ much in shape, according to the pressure and other forces to which they may be subjected; they are quite translucent. In fine, it must be borne in mind, that the appearance of areolar tissue in connexion with fat tissue, is not an essential condition of its existence,—only, in fact, of its *continuity*; for fat cells are deposited on and in many of the tissues, independently of any arrangement into a structured mass.

91. We shall now be able to understand the structure of the CONCENTRIC LAMINÆ of the Haversian systems in bone. From any longitudinal section of bone, which has been steeped in acid, and softened, we shall find that portions of these laminæ may be peeled. Upon examining these with the microscope, we shall further find a fibrous arrangement and interlacement, with, of course, minute apertures, (the transverse sections of the canaliculi.) The fibres form the organic basement upon which the inorganic or earthy particles of bony tissue are deposited. Mr. Tomes has obtained very minute particles of this inorganic matter. What may be their primitive form, how they are originally deposited, whether or no this is the only mode of ossification, are, at present, *quæstiones sub judice*. The methods of ossification are subjects hardly adapted to the present stage of our inquiries. This point will be resumed when speaking of tissue development generally.

92. CARTILAGE

is intermediate in function between unresisting bone, on the one hand, and the tough, inelastic fibre, on the other. This is especially seen in the xyphoid cartilage, where it is placed between these two tissues,—intermediate, not only in function, but position. Cartilage is of two kinds; one variety remains without alteration through life, as the costal cartilages; this is called "permanent;" the other variety is called "temporary," because it becomes converted into bone. This is found in the cartilages of the embryo which are destined to become bones. You can demonstrate both.

93. Take a partially hatched egg, say one which the hen has sat upon seven days; examine the limbs of the chick; very little dissection will enable you to see, that ossification has proceeded a certain distance down each portion of the limb, in a cartilaginous matrix; or, if you examine the cartilaginous skeleton of a young tadpole, you will observe all the characteristics of "temporary cartilage." It is composed of a stroma or matrix, of a pellucid texture, in which a series of distinct cells are observable. These cells are nucleated, and, in the nuclei, you may observe either

granular matter or fat. The cells are arranged in temporary cartilage in the linear direction of the ossifying matter, generally speaking.

94. The nucleoli in cartilage cells are not always observable; they may be one or two in number, and their position within the nucleus is variable.

95. The cells in the matrix of permanent cartilage are of the same general character. If you make a longitudinal section of a piece of articular cartilage, for instance, you will observe all the peculiarities mentioned; but there will be a difference in the arrangement of the cells: thus, near the free surface, the cells will be flattened and compressed more or less together, and thence, as it were, in right lines and at right angles to the free surface, they will stretch to to the attached surface.

96. Cartilage, like all other tissues, is extravascular. The blood-vessels enter perforations in its matrix when the cartilage is thick, as in costal cartilages, for instance; and, where it is thin, there is a mere surface circulation. Fibro-cartilage is a combination of the structures whose names it bears, and is in no other respect different. It also combines their functions and appearance.

ORIGINAL COMMUNICATIONS.

CONTRIBUTIONS TO ORTHOPÆDIC SURGERY.

By BERNARD E. BRODHURST, Esq.,
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INTRODUCTORY REMARKS.

Orthopædic surgery comprises all such morbid and other abnormal conditions as are included under the following heads:—

1st. Alterations of Function in the Muscular System.

2nd. Deformities of the Trunk and Extremities, which are produced by Disease of the Osseous and Ligamentous Systems.

3rd. Contractions of Fasciæ, Skin, and Cicatrices, as well as those arising from Chronic Inflammation within Joints.

4th. Monstrosities.

I have adopted this classification of the subject-matter, hoping to excite the attention of those whose opportunities of knowledge in this department of surgery have been less than my own, and to render it intelligible to those who are yet students in surgery. Much has already been written on Orthopædy, and much that is excellent; it is yet a desideratum, however, that it should be considered in its totality, with reference to physiology, anatomy, pathology, and therapeutics; that its resources and capabilities being developed, it may assume its true position in the ranks of the science of medicine and surgery of this nineteenth century. In undertaking an arduous task, which I have imposed on myself through the suggestion of many friends, I earnestly seek the favour of my Professional brethren.

OF ALTERATIONS OF FUNCTION IN THE MUSCULAR SYSTEM.

The affections of this class, which will have to be considered, are, for the most part, chronic disturbances of function, whether of centric or of peripheral origin; occurring generally in the young, though by no means confined to early life, and implicating every portion of the spinal cord, from the pons Varolii to the lumbar prominence. But irritation of the medulla is not the sole cause of alteration of function in the muscular system; there is equally impairment of function through idiopathic disease in the muscle itself. Consequently, a twofold division naturally presents itself, with sub-divisions, as follow:—

1st. Affections of motility which are dependent on disease of the spinal cord.

a. Exalted irritability and increased motion; *Hypercinesis*.
Diminished motion, or loss of motion; *Acinesis*.

2nd. Affections of motility which arise through primary morbid action in the muscle itself.

The following scheme will exhibit something of the argument:—

Muscular Contractions.	Spasmodic.	Tonic. / Clonic.
	Through opponent paralysis.	Central. / Peripheral.
	Inflammatory.	Traumatic. / Rheumatic.

Thus, morbid muscular contractions are of two kinds, namely, through derangement of motor influence, and through local alteration of structure.

By reducing disease to general laws, we are enabled to view the several affections which are similarly governed as a class,—as a series of facts of a like kind, and bearing a similar import, or as manifestations which own, more or less, a common cause. The facts themselves may be distinct, and united only through the character of generality and law; but, when once established and clearly understood, the law itself is then referred to, and takes the place, in the mind, of the facts. Thus, facts, which previously appeared without meaning, and valueless, being collected, and the law understood which governs them, immediately arrange themselves in intelligible order; and separate occurrences, which previously were not thought to have any connexion with each other, and which might even appear to be contradictory, or merely to be incidental and unimportant, expose themselves as exemplifications of the same truth. Then it is seen, that each new fact is but another manifestation of the same principle, and that each bears its part in the elucidation of the general truth. Although pathological anatomy leaves much to be desired with regard to the affections which are about to be considered, and, though their etiology is very imperfect, yet sufficient is known of them to teach us, that, as in each other form of disease, we have here no entities to study, but merely modifications of vital processes and derangements of natural functions.

It were impossible to over-estimate the importance of the quality of the blood in its connexion with the motor nerves, both in their normal and in their irritable condition. I propose, therefore, first, to take a brief physiological survey of the condition of the blood, the nerves, and muscular fibre, in so far as is necessary to consider them in conjunction with our subject.

With an idiopathic, spasmodic condition, there is change of at least three elements,—the blood, the nerve, and the muscle; change in one being dependent more or less on the other. For example, irritability of muscular fibre increases as nervous power decreases, and as the red globules of the blood become deficient. Thus, with increased excitability is there increased action,—irregular and augmented muscular activity, but diminished nervous power. Now, increased muscular activity demands a proportionate supply of nourishment to counteract exhaustion; therefore, the vital stimulus, oxygen, must be supplied in the same ratio. Thus, muscular activity, respiration, and assimilation, must bear a certain relation the one to the other, that a healthy state may be maintained; otherwise the supply will be unequal to the demand. This law exists throughout the animal kingdom; hence birds are the least tenacious of life; but crustaceans the most so. In birds, muscular activity is first lost, on suspending respiration or nutrition, and in the crustacea last, of the entire animal kingdom.

The development of heat decreases as vital energy decreases,—as the circulation of the blood is retarded,—as nutrition is diminished,—as the metamorphosis essential to living blood is imperfectly accomplished, together with that irritability of fibre, a necessary consequence of this change.

With great muscular activity, then, much blood is demanded, and that in a high state of oxygenation; respiration will, therefore, necessarily be accelerated, and nourishment must be equal to the other requirements; but should assimilation be imperfect, then will nutrition be disproportionate to restoration; the blood globules, as well as the fibrin of the blood, will be reduced, and the process of wasting will commence. Muscular activity and respiration, nourishment and vital stimulus,—blood and oxygen, must bear a direct ratio to each other.

Anæmia and a chronic idiopathic spasmodic condition are constantly found to co-exist. This state of the blood, which

gives rise to, or co-exists with, irregular muscular motion, has long been overlooked; indeed, the influence of the blood, and its direct connexion with disease of a spasmodic character, has yet to be generally admitted. The action of some agents, as the hydrophobic virus, the ergot of rye, alcohol, and some of the excretions of the blood itself, when uneliminated and circulated with this fluid, show that a more important element does not exist to operate upon the brain and spinal cord than the blood. Now, the partially fatuous state of the choreic patient shows how insufficiently the brain is stimulated by the circulating fluid; and, if the brain, then the remainder of the nervous system. The stimulating action of the blood is shown by opposed states of this fluid, when, for instance, it is charged with oxygen, and with carbonic acid. In the first instance, contractility remains longer than usual, after death has taken place; but with the latter, irritability of muscle is lost as soon as life is extinct.

Now, chorea may arise from various causes. It may be primarily an affection of the blood, derangement of the muscular system being induced by spanæmia; or it may be of the medulla, through an action of the mind; or it may be due to a reflex action, through uterine, intestinal, or other irritation; or, again, it may be induced by lesion of the medulla, as occasioned by onanism; or it may be due to the improper use of mercury, lead, and some other mineral substances, to the suppression of cutaneous diseases, etc. But it does not require to be said, that, in the majority of instances, these causes do not give rise to chorea; that neither anæmia, nor irritation, nor emotion will give rise to involuntary muscular action. It is, therefore, evident, that for the operation of these causes there shall be present a certain morbid nervous excitability. And this holds good equally of a local as of a general cause. Thus, an ulcer of the leg shall, in one instance, give rise, through irritation, to permanent contraction of the gastrocnemius; whereas, in a second individual, an ulcer, apparently similar, shall produce no such result. At the period of accession of a train of symptoms out of which tetanus arises, how frequently does the surgeon entertain the conviction, and with truth, that he has warded off a tetanic convulsion by the timely use of a sufficient opiate. This irritation is entirely distinct from mental perception or irritation, and differs in each individual, as he is more or less susceptible of the exciting influence. Thus, nervous excitability differs not less than mental power itself differs. Consequently, excitability, whether inherent or begotten, is peculiar to the individual; so that a given amount of irritation will, in a variety of instances, give rise to different results. And whether this shall declare itself in chorea, or in local spasm, as strabismus, cheirismus, etc., it is evident, that the same cause is at work to produce a result, differing in manifestation, and degree, and in importance, as existence itself is endangered, but identical in kind; for derangement of function may be of the entire system, or of a part.

There is no class of muscles that is not affected by spasm: the involuntary muscles are only less affected than those of volition. The muscles of cold-blooded animals, and those of the young of warm-blooded animals, are the most irritable. The irritability of the muscular fibre of the frog is such as to render it a delicate test of galvanic action. During hybernation, also, when the heat of the blood is reduced to the temperature of that of the cold-blooded, excitability is raised to the utmost. And Dr. Marshall Hall has shown, that "in the fœtus we have the highest degree of excitability of the nervous and irritability of the muscular systems." Tetanus may develope itself in trismus, opisthotonos, emprosthotonos, or pleurothotonos: equally, emotion may give rise to strabismus, varus, or general convulsion, without it being possible to assign a reason, further than the difference in degree of excitability, which occasions a different manifestation. Reflex irritation probably occasions an effect directly in accordance with the amount of irritation excited: thus, of the muscles of the larynx, and of those of the bronchial tubes, through disorder of the digestive organs; of the muscles of the globe of the eye, through intestinal irritation; of those of the neck, through uterine irritation; of the muscles of the extremities, through dental irritation; flexors, extensors, abductors, and adductors, being, if it may be so said, indifferently affected. But whether irritation be catastaltic or diastaltic, there must be present a certain morbid excitability, and in various degrees, that various effects may be produced; else should there be a positive effect for a given cause, which is not the case. Dr. Parr has written: "Convulsions attack persons of all ages, but chiefly the young or the debilitated; all constitutions, also, but principally the fair, the delicate, and the irritable; each sex, but particularly females. Its causes are various, but, in the opinion of every author, the chief source of convulsions is irritation. It is certainly irritation in systems peculiarly mobile,—in other words, easily excited to action; but, as the mobility is greater, the irritation necessary to produce convulsions is less; and sometimes so slight as to be imperceptible."

Removal of the cause is of itself frequently insufficient to arrest morbid action, when this has been of long duration. Irregular action has a tendency to form a habit of continuance; so that, although disease may require an impetus for its development, it becomes its own inciter to duration, and is not affected by removal of the exciting cause. This is the case with many morbid states, but particularly so with spasmodic affections.

Spasmodic affections are not of motion alone, but also sensation is implicated. Thus, hyperæsthesia of a cutaneous nerve, or, perhaps, of the entire surface of the body, or of an extremity, or, perhaps, of a nerve of special sense, frequently immediately precedes spasmodic action. But also hyperæsthesia of a sensory nerve may be the immediate cause of epilepsy. In like manner is there found to be coexistent impaired motion and impaired sensation; seldom total anæsthesia, but diminished sensibility. To judge rightly of diminished sensation, it is necessary to institute comparative experiments. This is necessary both with adults and with children. Especially is it difficult to arrive at approximate accuracy in judging of these affections in children, sensation being estimated with less certainty than motion. It is important, however, to insist on this connexion between nerves of motion and of sensation, motion being seldom affected without sensation being, at the same time, in some degree impaired; and, in like manner, loss of sensation invariably begets impairment of the motor faculty. Although this observation applies in every variety to altered function, it is of universal application. In the commencement there may be slight deficiency only of sensation, through which irregular motions are acquired, or, as it is supposed, a bad habit of using a limb; one set of muscles thus acquires abnormal power, through increased activity, or irregular action; while the opponents are deprived, through disuse, of their normal freedom and condition. Thus the balance of power is upset.

Sir Charles Bell's experiment will be remembered, in which he attached a weight to an extensor muscle, which gently stretched and drew out the muscle; with the descent of the weight, contraction took place of the opponent flexor, showing the dependence of one set upon the other,—that it is, as it were, a compensating balance; that extension of one set necessitates contraction of the opponent, and the reverse. I have observed the motor power of the left side of the body to be more frequently interrupted than that of the right; also, that the left side is more impressionable to the touch, whether of hot or cold objects, than is the right. It is probably on account of the higher development of the sensory power, that the motor also first becomes affected.

A sensory nerve, in its healthy state, may be subjected to extreme tension without suffering, as is daily witnessed in morbid growths, where the nerve is, perhaps, spread over the surface of the tumour; so soon as inflammation is excited in the nerve, however, the gentlest touch induces exquisite pain. During dentition, pressure of the tooth against its capsule and the gum occasions irritation and inflammation; and, this being propagated to the dental nerve, the effect is communicated in the course of the fifth pair, and is manifested, not alone in sensation, but in increased action of the muscles supplied by the centrifugal nerve; which change, from the quiescent state of the nerve, is known as spasm. Congestion of the soft structures in the neighbourhood of a nerve, through irritation and pressure, leads to inflammation of the nerve itself, together with, perhaps, effusion in the course of its fibres within the brain or the medulla. The cause being dentition, one side of the body may alone be affected, (and that probably the same as the one on which the irritation itself exists,) whether in convulsion or paralysis. These different states—hypercinesis and acinesis—are effects merely of different degrees of irritation or lesion. Thus, on the one hand, irritation is communicated, to produce the effect of a stimulus to a motor nerve; on the other, to depress or extinguish muscular power. Spasm,

then, is the result of irritation of a centripetal nerve, which, through its action on the nervous centre, occasions alteration of function,—increased motor activity of the parts supplied by the centrifugal nerve within the sphere of irritation.

Impressions of sensation may still be retained, notwithstanding power of conducting sensation is lost, impressions being referred to the peripheral extremity of a nerve, even after amputation, or when, through pressure in the course of the nerve fibre, the distal end is rendered inexcitable, but, through centripetal action, power to transmit impressions is retained. So of motion: the controlling power of the will may no longer direct the limb in this or that direction, yet irregular spasmodic action may remain.

Exhaustion of nervous influence is a consequence of increased excitement; hence the undue excitability of the nervous system, which results in spasm, terminates in paralysis. Chorea, for instance, induces partial paralysis; but repose is alone necessary to restore motion. Thus, spasm alternates with paralysis; indeed, spasm is not unfrequently evidence of permanent increase of nervous power. Spasm of the extremities has a tendency to terminate in paralysis, especially when complicated with structural change in the medulla, just as a morbidly exalted condition of the brain in dementia. And it may be esteemed a truism, that paralysis will more probably supervene where spasm has already existed, than where the nervous and muscular systems have not been thus morbidly affected. Spasm is, probably, always occasioned by spinal irritation; paralysis may be of cerebral or spinal origin. That it is pressure that induces loss of motor power in cerebral hæmorrhage we know, from watching the effects of injury to the head, as well as by experiments on the lower animals, and by *post-mortem* investigation. Thus, a portion of depressed bone, or an apoplectic effusion, or the injection of a few drachms of fluid into the cranial cavity, will induce hemiplegia of the opposite side of the body; whereas, both hemispheres of the brain may be extirpated without inducing paralysis. A very interesting fact in relation to cerebral hæmorrhage is, that on the supervention of inflammation in the vicinity of the clot, pain and contraction will succeed to the former paralytic condition; and, again, spasm, the result of inflammation, will terminate in paralysis.

Change of structure of muscular fibre is frequent where spasm has existed; it is perhaps due rather to the state of inaction that supervenes, and to the necessarily imperfect state of nutrition, than on exhaustion consequent on spasm. With loss of motor power, and diminished sensation, nutrition of the skin becomes imperfect. This is shown by roughness and desquamation of the cuticle, and by diminished heat of the surface. But also the nutrition of the muscle becomes imperfect, and organic change speedily results. Inaction alone is sufficient to bring about this structural change. Thus Mr. Quekett writes of the common fowl:—"If the white muscle be examined, traces of fatty degeneration are very apparent in the fasciculi, arising, no doubt, from the want of use of the muscle in the act of flying; the muscular structure of the legs, on the contrary, which are always in exercise, is perfectly healthy. I have detected," says Mr. Quekett, "the same disease in the ostriches in our Zoological Gardens; and those muscles of the legs which are engaged in the act of progression, from want of use, are perceptibly whiter than those employed merely in the support of the body, and also exhibit a considerable amount of fatty degeneration. The same disease I have also found in their bones; and it is a fact, well known to the keepers, that when they once take to lying down, their doom may be said to be sealed."—Lectures, *Medical Times*, August, 1851.

In the commencement of this disease, the transverse striæ become indistinct, and are lost; fibrous tissue is found in excess, together with more or less adipose tissue; and with this change the nerve suffers equally, and power of conduction is lost to the nerve fibre. Muscular atrophy, complicated with fatty and fibrous degeneration, is a fact almost inseparable from long-standing deformity.

Idiopathic muscular atrophy is an exceedingly rare condition, in which the mass of muscle is reduced in weight, and loses its intensity of red-colouring. In the first instance, volume is alone changed, without alteration of structure in the fibre itself; it gives place, however, to fatty transformation. This condition would appear to be hereditary in some instances.

It is important to have ascertained that, even after structural change has so far advanced that contractility is lost and muscular fibre has almost disappeared, power may be regained on restoring the nutrition of the part. This knowledge is, perhaps, one of the greatest encouragements to orthopædic surgery; increase of muscular fibre and restoration to a normal position being almost necessary consequences the one of the other.

With these preliminary observations on the origin of functional change, I will proceed to examine in detail the various deformities in which the muscles are the active agents; but it will be necessary to premise an exact definition of the terms to be used,—namely, tonic, clonic, and paralysis. Tonic spasm is, then, that state of muscular contraction in which rigidity of a member is maintained without alternations of relaxation. Clonic spasm is muscular action frequently and involuntarily repeated, and not of long duration,—relaxation alternating with involuntary muscular contraction. Paralysis is diminution or loss of voluntary power.

To the superficial observer, nothing can appear more widely different than tonic and clonic spasm; and yet there is difference only in degree and duration. It is not uncommon to hear it remarked, that continued muscular contraction is not spasm; that spasm requires that relaxation should alternate with action; that, in such instances, there is structural shortening of muscle; that position has given rise to deformity, &c. Weber has shown, that tonic spasm is not a persistent influence, but due to a succession of shocks applied to the centrifugal nerve. He states, that if galvanic shocks be communicated so rapidly to a muscle or its nerve, that a second contraction shall commence before the preceding one has ceased, the muscle's contraction is then persistent, and so perfectly continuous, that, even with the microscope, movements of contraction of individual fibres cannot be perceived. The spasm of tetanus is often of long duration, and continuous. Such was the case with the first instance of idiopathic tetanus that I ever witnessed. It occurred in a boy sixteen years of age, and lasted during six weeks without intermission, and at length yielded to electricity. So long as his body remained insulated, there was cessation of spasm; it recurred, however, the moment he was uninsulated. Mr. Travers relates a case of trismus which had existed three months when he first saw the patient; so that it had been necessary to feed this individual by means of an elastic tube, which was passed into the mouth through a space caused by the loss of a tooth. (a) It is unnecessary at this time to multiply the recital of these cases; it might be done *ad infinitum*.

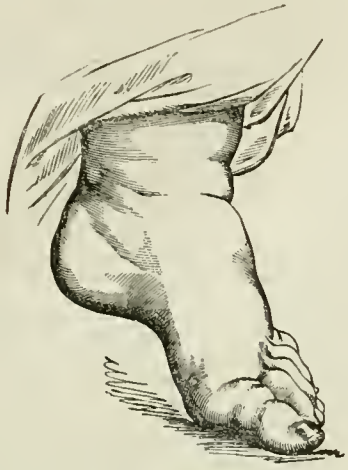
Tonic and clonic spasm frequently co-exist. In the case related above, of Mr. Travers', chorea succeeded trismus; and, with a spastic condition of one set of muscles, there appears to be a general tendency to spasmodic action, which may declare itself either in general epileptic convulsion, (not an unfrequent occurrence,) or in a local affection, as strabismus, psellismus, &c. The alternation of spasm with paralysis has already been alluded to; I will, for the present, merely refer to Dr. Coppinger's case. (See *Medical Times and Gazette*, April, 1853.)

The following case is an instance of tonic and clonic spasm combined; tonic cheirismus; clonic podismus.

Case 1.—S. D——, London-fields, Hackney, aged 10 months, March, 1853. She was puny, but healthy at birth. When three months old, she cut two teeth without suffering, and at five months others, and still, although irritable, she was, apparently, without pain. It was observed, however, at this time, that the hands and feet were both slightly contracted, and this became more constant and marked, until the time when I first saw her. The child was then small, anæmic, and irritable in temper; the appetite was small and yet variable; the gums were swollen and tense; there was talipes equinus of the left foot, and the fingers of the left hand were flexed into the palm. Contraction of the gastrocnemius was greatest when the child appeared to be in pain and cried, as well as was that of the flexors of the fingers. When the child was at rest, and not in pain, the foot presented its natural appearance; it was only necessary, however, to handle the foot, to produce contraction of muscle and elevation of the heel. Thus, when first seen by Mr. Bagg, there was nothing to delineate save a well-shaped

(a) A Further Inquiry Concerning Constitutional Irritation, &c.—P. 311.

foot; on handling the foot, however, the deformity immediately became apparent, as shown in the following figure.



But, though contraction of the fingers was most complete during a paroxysm of pain, the middle finger always remained contracted, power of extension not being regained after the paroxysm had ceased.

The father of this child, aged 38, has, for the last three or four years, been crippled with rheumatism. The fingers of both hands are powerfully abducted by the action of M. interossei, slightly flexed and almost immovable; and the toes are in a similar manner flexed and abducted by the M. interossei and lumbricales. The mother, aged 37, is pallid and thin. Their eldest is a healthy child, seven years old.

Here, then, is an instance of increased function of the flexor muscles of the fingers, and of the extensors of the foot, occasioned by dental irritation. At first sight, it may, perhaps, appear, that there is some discrepancy in the circumstance of the extensors of the foot and the flexors of the fingers being simultaneously affected. In the quadrumana, however, the corresponding muscles are true flexors; and in man they were classed as flexors, and not without reason, by Rudolphi, Walther, and other anatomists.

[To be continued.]

INTERESTING CASE OF INJURY TO THE HEAD.

SUPPOSED FRACTURE AT THE BASE OF THE SKULL.—RECOVERY.

By BLACKALL MARSACK, M.R.C.S., Etc.

Francis Gibbs, aged 35. April 1st, 1853.—Fell from a cart while in a state of intoxication, and is said to have pitched on the top of his head. When raised from the ground, a considerable quantity of blood was found to flow out of the right ear.

Was seen by me three or four minutes after the accident, when scarcely any pulse was perceptible, extremities cold, respiration laboured, pupils dilated and fixed; no external wound, but considerable hæmorrhage from the right ear; quite insensible. Hot-water jars were applied to his feet, and friction over the heart. Head to be shaved, and cold lotions applied.

Eleven p.m.—Still unconscious; surface of body warmer; pulse very feeble, 60. On examining the head, a distinct depression was found between the junction of parietal and occipital bones on right side.

2nd, ten a.m.—Sensible when roused; knows nothing of the accident. Surface of body warm; hæmorrhage still continues from the right ear, and pours when he vomits, which he has done five times during the night; bowels evacuated involuntarily; bladder somewhat distended; complains of severe pain in the head, but more particularly over the right mastoid process. Bled to sixteen ounces, when the pulse rose from 60 to 80. Two and a-half pints of urine drawn off.

Ordered hyd. chlor. gr. ij. every three hours, with cold lotions to the head.

Six p.m.—Less hæmorrhage from the ear; easily roused, and quite sensible when spoken to, but very deaf; pupils natural in appearance, but do not contract and dilate readily.

3rd, eleven a.m.—Passed a very restless night, dozing at times; bowels not open, and has not made water; hæmorrhage still continues from the ear, but in less quantity; complains very much of the pain in the head; skin hot and dry; complains of thirst; tongue furred; pulse full and very slow, being only 48. Bled to sixteen ounces, when pulse rose to 80. One pint of dark, clear urine drawn off.

Ordered to continue the powders and lotion, and to take a cathartic saline draught immediately.

Seven p.m.—Bowels freely relieved since taking the draught; pulse 60, full; hæmorrhage less; in other respects much the same as in the morning.

4th, nine a.m.—Slept well all night; bowels opened three times, and he says that he passed urine at the same time; no hæmorrhage from ear; tried to eat a small piece of bread, but found it gave him most excruciating pain behind the right ear; pulse 60; pupils natural; tongue less furred, and more moist; bladder not distended; is quite sensible, and answers rationally when spoken to, but still very deaf.

Ordered to continue the calomel powders every four hours, but one grain instead of two. Lotion as before.

Eight p.m.—Slept a good deal all day; bowels relieved twice, and urine passed at the same time.

5th, nine a.m.—Slept at intervals through the night, but was very restless at times, tossed his head about, and spoke incoherently. Face flushed; pulse 72; pupils more dilated and less contractile, especially that of right eye, which is somewhat irregular in shape; tongue moist, and mouth sore from the calomel; appears more restless than usual, and complains of the pain being much more severe.

To leave off the powders.

Eight p.m.—Much the same as in the morning; eyes rather suffused. Bled to ten ounces, when the pulse rose to 80, as before.

6th, ten a.m.—Bowels much purged, as often as fifteen times since last night—no doubt brought on from the calomel; motions dark and muddy; pulse 90, small; eyes less suffused; tongue moist.

Ordered chalk and catechu mixture, without opium.

7th, nine a.m.—Purging ceased; passed a very restless night; pulse 92, small; pupils natural; bowels opened once this morning; mouth slightly drawn on one side.

To leave off the chalk mixture.

8th.—My friend Dr. Rooke, of the Dreadnought Hospital Ship, being here on a visit, I asked him to see the case with me, when we found the pulse to have a peculiar jerk—68 in the recumbent posture, and 82 when sitting; mouth more drawn on left side; had had a better night; bowels not opened since yesterday morning.

Ordered a saline purging draught immediately.

9th.—Again seen with Dr. Rooke; eyes suffused, especially the right; pulse 68, thrilly; bowels open once since yesterday evening. Bled to sixteen ounces, directly after which he expressed himself as being much relieved, and the congestion of the conjunctivæ disappeared.

Ordered a senna and sulphate of magnesia draught to be taken early to-morrow morning.

10th.—Slept well, and says that he feels a little better. Pain more confined, being chiefly situated behind the right ear; bowels open; pulse 78, lying down—80, when sitting; pupils natural; mouth still much drawn on one side.

Ordered twelve leeches over right mastoid process, and to continue cold lotions on the head.

11th, nine p.m.—Passed a comfortable night; mouth rather more drawn to one side; pulse 64, regular, and easily compressible. Leeches took well.

12th.—Much as yesterday; bowels regular.

13th.—Improving fast; mouth less drawn; feels freer from pain; pulse 76, soft.

14th.—Going on well; bowels not relieved since the evening of 12th.

Ordered cathartic draught.

15th.—Bowels acted three times since taking draught; pulse 68, soft and regular; complains of pain over the right temple; conjunctiva of right eye a little congested.

To have six leeches on the temple affected, and continue cold lotions.

16th.—In less pain; right eye not suffused.

19th.—Improving fast, but requires aperients occasionally to keep the bowels in action; mouth is but very slightly on one side; pulse regular, 62.

To have beef-tea twice a day. This is the first time I have allowed him to take anything stronger than thin gruel or water arrow-root.

From the above date up to the present time, (May 4th,) this case has rapidly improved; and I now consider him convalescent, for he has been down-stairs every day for the last fortnight, and takes a little meat for his dinner. His mouth is still very slightly on one side.

The large amount of hæmorrhage from the ear, (of which I was myself a witness,) can only be accounted for by coming to the conclusion, that there was a fracture at the base of the skull; and as recoveries from such accidents are rare, it makes the case most interesting. The depression on the parietal bone could only have been through the outer table, as no symptoms of compression were present, the paralysis not coming on for a week after the accident.

Little Brickhill, Bucks.

THE LONDON AND PROVINCIAL PRACTICE OF MEDICINE AND SURGERY.

UNIVERSITY COLLEGE HOSPITAL.

LARGE PUNCTURED WOUND OF THE PLEURA.—PLEURISY.—PERICARDITIS.—PERITONITIS.—ANTIPHLOGISTIC TREATMENT.—RECOVERY.

[Under the care of Mr. QUAIN.]

We recorded last week a case in which the peritoneum had been pierced by a punctured wound, and acute inflammation had resulted; as also another, in which the pleural sac had been the seat of a similar injury. These accidents are far from being common ones in civil practice; and the great interest which attaches to them, both as it regards the question of prognosis and that of treatment, induces us to bring before our readers the particulars of the two following, in each of which an extensive and very severe wound laying open the pleural cavity had occurred. The first of them was a patient in University College Hospital, and for the notes of the case we are indebted to Mr. Hillier, Mr. Quain's house-surgeon at the time.

Henry Arnold, a robust young man, aged 18, was admitted December 18, 1852. While engaged in cleaning a window on the first story, he had slipped and fallen, striking in his fall on the area palisades below, a spike of which, with an arrow-shaped head, had pierced his left side, and was broken off by the violence of the blow. Almost immediately after the accident, he had been seen by a neighbouring medical man, who found a large wound of the chest in the eighth or ninth intercostal space, about an inch and a quarter long, and extending downwards and backwards. The finger could be passed into the pleural cavity for about two or three inches. At each respiratory act, air was being drawn in and out of the wound with a sort of cooing noise. The percussion note for some distance around the injured part was of a tympanitic character. There had been no hæmoptysis, and but very slight external hæmorrhage. The broken end of the spike had fallen out by its own weight, and the wound was almost clean; its edges having been brought as nearly together as possible, it was closed by adhesive plaster, and the lad at once sent to the hospital.

10 a.m., two hours after the accident.—He is lying on his right side, moaning in a low tone, and with a countenance expressive of great pain. Pulse 94, not strong. Respirations 36 per minute. The percussion note near the wound and below it does not differ materially from that of the same regions of the opposite side, and the respiratory murmur is audible to within a hand's-breadth of the base of the lung. He has coughed up sputa of a bronchitic character, slightly tinged with blood. There is a considerable degree of subcutaneous emphysema, extending anteriorly and posteriorly to the middle line, as high as the angle of the scapula behind, and to the third rib in front. He is ordered—Hirud. xij. lateri sinistro.

℞ Pil. hydrarg. gr. ij.; antim. pot. tart. gr. 1-6th; ext. conii gr. ij. 4tis horis.

4 p.m.—Pulse 120, rather full and firm; catching pain on inspiration is complained of, chiefly about three and half inches below the nipple.

Mr. Quain ordered venesection to twelve ounces, after which the pulse fell to 92, and became much softer.

16th, 10 a.m.—The patient complains much of a short, dry cough, which is unattended by expectoration, but which produces sharp darting pains between the scapulæ. There is a pleuritic friction sound heard around the seat of injury, synchronous with the respiratory movements. We must here note, that it was uncertain, whether or not this sound was present yesterday, as the crackling of the subcutaneous emphysema made it very difficult to be certain as to the exact stethoscopic phenomena.

℞ Calomel. gr. i.; pulv. opii gr. ss. Ft. pil. 4tis horis sumend.

17th.—He still suffers acute pain in the side; pulse 102, full and strong; respirations 32 per minute. The abdomen is much fuller than natural, tense and tympanitic pressure either above or below the umbilicus produces pain. Respiration is heard anteriorly on the left side to an inch and a-half below the level of the nipple, and behind to about the lower angle of the scapula; below these points the percussion note is quite dull. The upper border of the heart's dulness is under the junction of the third rib with its cartilage; its right border is beneath the right margin of the sternum, while its apex may be felt to strike under the fifth rib. Below the fourth rib, immediately to the left of the sternum, there is distinctly heard a peculiar churning friction sound, which is synchronous with both systole and diastole of the heart. From these signs, Dr. Jenner, who had made the auscultatory examination, arrived at the conclusion, that the patient, in addition to pleurisy, with effusion, was also suffering from a slight attack of pericarditis. Pt. pil. V.S., ad ℥viij. After the bleeding the pulse became softer, but was rather quickened, being 108 per minute. The pericardiac friction sound ceased to be audible—a circumstance, the explanation of which was, perhaps, to be sought for in the diminished force of the heart's pulsations. The blood drawn is not very decidedly buffed.

18th.—There is improvement in the general symptoms. The abdomen is less tender, and much less distended. The limits of the heart's dulness are the same as yesterday, and the friction sound is again audible just above the cartilage of the fifth rib. Pt. pil.

19th.—Has had a good night, and says that he feels much better. Pulse 92; respirations 22. Excepting on coughing, he complains of no pain. The abdomen is almost natural as to distension, but there is still some tenderness in the left iliac region. There are distinct signs of the left pleura being filled with fluid up to the level of about two inches below the spine of the scapula. The gums are a little swollen and tender, and there is a mercurial fetor in the breath.

Omitte pilula. ℞ Hydr. chloridi gr. ij.; pulv. opii gr. j., o. n.; olei ricini ℥ss. statim sumend.

11 p.m.—During the time intervening between the administration of the castor oil and the action of the bowels, he suffered great pain in the abdomen, but it is now relieved.

20th.—Abdomen flaccid and painless. On placing the stethoscope over the cartilages of the fifth and sixth ribs, a distinct rubbing murmur is heard synchronous with some of the beats of the heart. Pulse 90, occasionally irregular in the force of its beat. Bowels freely open; motions loose, and tinged with blood.

℞ Hydr. cum cret., gr. ij.; extracti opii gr. ss. Ft. pil. quintâ qq. horâ sumend.

21st.—Improving. Omit the pills. ℞ Pot. iod. gr. iij.; aq. ℥ij., quintis horis sumend. Empl. lyttæ (6 + 5) dorso sinistro.

30th.—The wound has very nearly healed, and he is progressing favourably. Percussion-note still dull beneath the angle of left scapula; respiration weaker than on the right side.

Jan. 11.—For about a week, he has now appeared to be perfectly well. The action of the heart is regular, and free from abnormal sound. The wound is healed. On the left side, the percussion-note is clear to within about a hand's breadth of the base of the lung all round, and the respiratory sounds are audible to about the same level. The whole left side, more especially the lower half, appears to be slightly flattened and contracted.

On the promise that he will not return to work for some time to come, and that he will be very careful not to expose himself to cold or damp, Mr. Quain allows him to return home. He is to attend as an out-patient, and to take potassii iod. gr. iv.; liq. potassæ mxv.; aquæ ʒij., ter die.

It must be remarked respecting the above case, that there was no reason to believe that the lung had been in any way wounded, since no symptoms of inflammation of that texture occurred, and the spitting of blood never exceeded in quantity what was barely sufficient to tinge the sputa. The emphysema of the subcutaneous cellular tissue was probably due to the fact, that, immediately after the accident, air freely entered the pleural sac, and, when the wound had been closed, it was, in each expiratory effort, compressed and forced out into the external tissues. The localization of the first observed tympanitic resonance might probably be caused by previously-existing bands of adhesion, and the disappearance of the sign, by the fact, that the air had been forced out again as just noticed. The extension of inflammation to the pericardium, and perhaps, also, to the peritoneum, is curious, and, perhaps, does not admit of any closer explanation than that, as tissues, they are contiguous with the pleura, and that the circulating fluid supplying them all was in an inflammatory condition. With such extensive serous inflammation existing, the almost complete absence of the buffy coat from the blood is a singular, and perhaps inexplicable, phenomenon. The treatment pursued was active, and very successful; the hæmorrhage connected with the accident had, it must be remembered, been almost *nil;* so that the powers of the patient had not been in any way expended; and, in this respect, the case we have next to relate forms a remarkable contrast to it. Profuse bleeding had resulted as a direct effect of the injury; and in the treatment it was at no time deemed wise to resort to antiphlogistic measures, yet the convalescence was very satisfactory.

ST. BARTHOLOMEW'S HOSPITAL.

PUNCTURED WOUND OF THE CHEST.—PROFUSE HÆMORRHAGE.—EFFUSION INTO THE PLEURA.—EXPECTANT TREATMENT.—RECOVERY.

[Under the care of Mr. PAGET.]

Our space will not permit us to give the following case in full. The following are its chief points:—Mary Ann A., aged 28, a fair-complexioned, delicate-looking woman, was admitted on account of a deep wound of the chest, penetrating between the fifth and sixth ribs, a little behind the middle of the side. The injury had been inflicted by falling sideways off some steps on the spikes of a palisade. She had lost much blood previous to admission, and was almost faint. The blood was spumous, and of a bright arterial hue; it did not flow continuously, but in a strong gush every now and then, just as an expiration was attempted. She had spit several mouthsful of blood. The wound was at once closed by a compress of wet lint, and she was made to lie on the injured side. As she was extremely weak, and blanched to a degree, a diet of milk and broth, to be taken cold, was allowed her; to drink ice-water.

During the first fortnight she continued in this extremely exhausted condition. There were signs of the lower half of the chest being full of fluid, but no very urgent symptoms presented themselves. The wound was kept closed, and no further hæmorrhage resulted. Mr. Paget stated, that he could discern no indications requiring active treatment, and he, therefore, preferred to content himself with the administration of nutriment in a mild, unstimulating form. After the expiration of a fortnight, improvement was rapid; the wound healed, and, in about two months, the patient was discharged in apparently perfect health; all signs of effusion into the chest, or of pulmonary solidification, having disappeared. Beyond the administration of a few doses of castor-oil, and once or twice of anodyne draughts, no medication whatever had been adopted.

FRACTURED RIB—EMPHYSEMA—ALARMING DYSPNŒA—VENESECTION—FAVOURABLE PROGRESS.

[Under the care of Mr. LAWRENCE.]

The following case has occurred since the above were written, and as it illustrates another class of severe injuries to the chest, and is also peculiarly interesting on account of the great age of the patient, we hasten to append it. John Winterburn, a hale man, aged 76, was admitted in the evening of June 5, having twenty-four hours previously fallen on some stone steps, and struck his left side violently against the edge of one of them. He was in a condition of most extreme distress of breathing, and it was stated that he had been getting worse and worse ever since the accident. There was great tenderness on pressure over a limited spot, a little anterior to the middle of the left side. The whole back, on both sides, from the occiput to the crests of the iliac bones, was distended with air. Percussion on both sides of the chest was normally resonant, and on the right the respiratory sounds were also loudly heard. There was great difficulty in auscultting the left side, on account of the emphysema; and it was only by pressing the ear on the distended parietes, until all the air had been squeezed out, that it was ascertained that an extremely feeble inspiratory murmur was audible in all parts. This fact, taken together with clearness of the percussion-note, seemed to make it certain, that the pleural sac did not contain any large quantity either of air or fluid, and that the dyspnœa depended rather on the irritation produced by the broken bone than on compression of the lung. With the hope of relieving this, Mr. Archer, the house-surgeon in attendance, applied a large plaster and a flannel bandage to the chest, and administered a full dose of opium.

10 p.m.—No material relief was apparent; the man was still tossing about from side to side, very restless, and breathing with extreme difficulty. Respirations 36 per minute; pulse 90, full, but compressible. He states that the bandage has given a feeling of support to the chest, but that the pain is still very severe. V. S. ad ʒxxiv.

6th.—The most marked benefit was evident almost immediately after the bleeding. The pain was relieved, and the breathing consequently became much quieter. The patient is this morning in a satisfactory condition. Respirations 24 per minute; pulse 80; skin cool and moist; tongue clean.

9th.—The man may now be considered out of danger, and has progressed quite favourably ever since the bleeding. Respiratory sounds are now audible with almost natural force in every part of the left chest. He complains of no pain, and sleeps fairly. The external emphysema has almost disappeared. We must note, that there was no external wound in this case, and that the emphysema must consequently have resulted from injury to the lung. There had been, however, no hæmoptysis in any stage of the case.

THE LONDON HOSPITAL.

SOLID TUMOUR IN THE UPPER PART OF THE ORBIT.—EXCISION.—RECOVERY.

[Under the care of Mr. WORDSWORTH.]

William Reid, aged 22, in excellent health, was admitted on February 16, 1853, in order to have a tumour removed from the upper part of his left orbit. He stated, that, three years previously, he had noticed a slight protrusion in that part, which had been increasing ever since, but unattended by the slightest pain or inconvenience. Latterly, however, it had increased in size more rapidly than before. On examination, a hard, solid feeling mass, as large as half a walnut, but somewhat flattened, was felt immediately beneath the upper wall of the orbit. It was movable to some extent, and might be pushed further into the orbit, but evidently adhered much more closely to the periosteum than to the eye itself, from which latter it was quite free. The external prominence was considerable, and the eyeball was pushed slightly downwards and inwards.

On February 17, Mr. Wordsworth commenced the dissection by an incision, parallel with and immediately below the supra-orbital ridge; and, having exposed the tumour, he divided its firm cellular adhesions to the roof of the orbit. The mass being then held forwards and upwards, its lateral and inferior connexions were carefully cut through with the knife, and the posterior ones by means of curved scissors. Very little bleeding occurred, and the parts having afterwards been placed in accurate apposition, were secured by sutures and plasters, over which was laid a moist compress.

The wound united by the first intention, without the occurrence of any undue inflammation; and, in about nine days, the man was allowed to return home.

The removed mass consisted of two portions, the inner half being about the texture of a firm gland, and containing in its centre a cyst the size of a pea The other part was a roundish, well circumscribed, hard mass, as big as a cherry, which produced almost a crunching sensation when cut, and showed a flat surface, of a greyish colour, interspersed with yellow spots. They were enclosed and connected together by a thin cellular envelope. The mass occupying the site of the lachrymal gland was considered to be that organ enlarged and altered in structure. An examination by the microscope developed no evidences of malignant cell-growth. The

firmer portion appeared to consist of gland stroma, with an increase of areolar tissue; the smaller soft part of the same structure mixed with inflammatory exudation.

USE OF THE LONG SPLINT IN FRACTURES OF THE THIGH.

At the bedside of an old woman, lately discharged from this hospital, having recovered from fracture of the neck of the femur, Mr. Curling remarked, that he thought the employment of moderate extension by means of the long splint not only warranted, but a very desirable practice in such cases, provided the patient could bear the confinement. The shortening and consequent lameness were certainly less under such treatment than when the limb was left to itself, as is ordinarily done. In this instance, the patient is 69 years old; she has borne the confinement of the splint without inconvenience, the bone has become fixed, and the extent of shortening is less than half an inch.

Mr. Curling also stated, regarding fractures of the upper third of the thigh bone generally, that his experience quite coincided with the opinion recently expressed by Mr. Butcher, of Dublin, respecting the position assumed by the upper fragment, that it is usually rotated outwards, but not drawn forwards and upwards, as asserted by Sir A. Cooper, and now commonly believed. He had generally felt the sharp end of the upper portion in the outer part of the leg, but not at all elevated in front. If such be the fact, all argument for the use of the double inclined plane in this class of fractures in preference to the long splint is, of course, destroyed.

ROYAL BERKSHIRE HOSPITAL.

A CASE OF URIC ACID CALCULUS, WHICH APPEARED TO HAVE BEEN DISSOLVED IN THE BLADDER BY THE USE OF ALKALINE REMEDIES.

By F. A. BULLEY, Esq., F.R.C.S.,
Surgeon to the Hospital.

Henry Bosier, aged 15, a delicate-looking scrofulous boy, residing near Sparsholt, Hants, employed as an agricultural labourer, was admitted into the hospital, Nov. 15, 1847, on account of having suffered from symptoms of stone in the bladder, which latterly had become so much increased in severity, that his friends, by the advice of a medical gentleman in the neighbourhood, procured his admission, in order to its removal by operation. I was informed, that his disease had existed about three years, and that, during the last six months, his sufferings had become so greatly aggravated, as to unfit him for any kind of employment. There had been a constant desire to pass water, especially in the night, which obliged him to get out of bed every five minutes; and, after passing it, the pain was so agonising, that he could scarcely stand. After walking five or six miles, his water would appear exactly like blood. Sometimes there was a whitish gritty sediment in the urine, and occasionally a quantity of viscid, tenacious mucous, which adhered to the utensil. He had never suffered any particular pain in the glans penis, nor had he been subject to have his water suddenly stop while making it, which circumstances, at first, induced me to believe, that he might only be suffering from some chronic disease of the bladder; but, upon further questioning his mother, who accompanied him to the hospital, she informed me, that his medical attendant, the late Mr. Staley, of Wantage, had thrice examined him, and each time found evidence of the presence of a stone, and on one occasion had called her into the room where he was making the examination, and, to convince her of the fact, requested her to take hold of the handle of the instrument, when she distinctly felt, and indeed heard, that it struck against something hard in the bladder, from which she had no doubt, that a stone, or at least something very unusual, was contained within the organ.

An examination which I now made with a metallic sound, left me no room to doubt the nature of his complaint, the unmistakeable feeling of a stone in the bladder being clearly perceptible; and the patient was, therefore, other circumstances being favourable, admitted as a fitting case for the operation of lithotomy. Having, however, just previously become acquainted with the particulars of a case of stone which had apparently been dissolved by the employment of saline medicines, which I understood had been procured from a person living somewhere in Warwickshire, and having, principally through the kindness of my friend Mr. Adams, of the London Hospital, succeeded in obtaining a knowledge of the probable composition of the remedy, which I was told was generally known by the name of "Constitution Water," I determined to employ some analogous preparation in the present case, although, I must confess, with but little hopes of success.

Taking for granted that the gritty sediment, which had been occasionally observed in the urine, was principally composed of lithic acid, and having no doubt that the stone was formed of the same material—and, moreover, as the boy seemed, from his general symptoms, to be the subject of the lithic acid diathesis, which I supposed to be the only constitutional condition likely to be affected by solvent remedies of any kind—I ordered him to take the following powder, dissolved in half a pint of tepid water, twice a day, strictly enjoining him to take no other kind of fluid, with the exception of a glass of rain-water whenever he might feel thirsty, which being frequently the case from the salt drink, he generally took from a pint and a-half to two pints, and sometimes more, during the day; the use of vegetable food was strictly prohibited.

℞ Potassæ bicarb. gr. x.; sodæ carb. gr. xij.; potassæ nitratis gr. viij. Ft. pulv. To be dissolved in a tumbler-full of tepid water, and taken twice a day.

As his skin generally appeared to be habitually dry, and secerning very imperfectly, and as the cutaneous capillary circulation was extremely languid, I ordered his body to be sponged daily with tepid water, followed by dry rubbing; and he was made to walk briskly for an hour or two in the hospital-garden twice a day.

He continued this treatment, with occasional interruptions from disorder of the bowels, for about a month, at the end of which time it was found that he had lost, in a great measure, the irritability of the bladder under which he had previously been labouring. Considerable quantities of thick, gritty matter had been at times observed in his urine, which, upon examination, were found to consist of amorphous lithic acid, with some mucus, but not nearly so much of the latter as he used to pass before he came to the hospital.

His general health had improved in proportion; and, notwithstanding the occasional diarrhœa to which he had been subject, he had gained strength and flesh, and his skin had become habitually moist and perspiring, which had not been the case for a long time previous to admission; and he appeared to be gradually losing the symptoms of his disease.

February 3, 1848.—He has been gradually improving in his health since the last report; he has now almost completely lost the irritability of the bladder, and he passes his water, which is still, however, thick at times, without pain or inconvenience. He was therefore discharged from the hospital, with directions to continue the treatment some time longer.

April 16, six weeks since his discharge from the hospital.—He says he now feels no pain, either in making water or after doing so; he sleeps well at night, and is not obliged to get out of bed oftener than any other boy in health; he looks better, and feels stronger, and goes to farm work regularly every day without inconvenience. I now carefully examined the bladder with a variety of instruments, but failed in detecting the stone; but there was a kind of hard gristly feeling of the lining membrane, near the fundus, on rotating the instrument, such as is not uncommonly met with in a bladder which has been for any considerable time under irritation from the presence of a calculus. He was ordered to take the medicine only once a day for a short time longer.

April 18, 1850, two years and two months from the date of his discharge from the hospital, I received the following communication from the patient's mother:—"With pleasure I inform you that my son Henry is perfectly recovered." I have, since this, had no opportunity of ascertaining whether or not he has had any return of the disease.

URIC ACID CALCULUS.—UNSUCCESSFUL ATTEMPT AT SOLUTION.—OPERATION.—REMARKS.

Joseph Cross, aged 9 years, was admitted January 20th, 1852, on account of having symptoms of stone in the bladder, which, according to his mother's account, had existed, more or less, for six years. His disease had commenced with occasional difficulty in making water, and pain, continuing for some time after he had voided it; and he was observed to be constantly pinching the penis, as if from uneasiness of the part.

Latterly, he has appeared to have been always in pain; and his water has been continually dribbling from him night and day, wetting and spoiling his clothes, and saturating the sheets and mattrass of his bed. He is unable to sit down, feeling comfortable only when he is in a kneeling position; and he has been under the necessity lately of getting out of bed every half-hour to pass only a few drops of water at a time, the pain afterwards being most agonising. On examination of the bladder, a calculus is easily detected; and it appears to be grasped by the contracted organ, occasioning some difficulty in the introduction of the instrument. As he has scarcely ever, during the progress of his complaint, been able to make water in a natural manner, it has scarcely been possible to collect a sufficient quantity of the urine for examination; but it has generally stained his linen of a reddish colour, and,

on one or two occasions, when a small quantity has been collected in a glass, it has deposited a red, gravelly sediment, which, from description, I have little doubt was composed of crystals of uric acid, a considerable quantity of slimy mucus being also present. He had twice previously been an in-patient of the hospital; on the first occasion remaining two months, when, on the supposition that the calculus was of the uric acid kind, he was submitted to the same kind of treatment for its solution as in the other case, (modified, of course, by his more tender age;) but, beyond its diminishing the irritability of the bladder, and his acquiring a capability of retaining his urine, no perceptible effects were produced upon the stone, which, on introducing a sound into the bladder, was as distinctly felt as before the treatment was commenced. He was therefore discharged from the hospital, with directions to return, if the symptoms should again become troublesome, for the purpose of undergoing an operation.

January 20, 1852.—His former painful and distressing symptoms having returned, with an utter incontinence of urine, he was again admitted; and, after some preparatory treatment, the operation was performed on February 6th. On passing my finger through the incision in the prostate, which had purposely been made very small, on account of the contracted state of the bladder, I at once came upon the stone, which appeared to be surrounded, and, indeed, grasped, by the contracted bladder, which, as far as I could judge, was not capable of containing anything larger than a walnut.

In this state of things, a little difficulty was experienced in passing the blades of the forceps over the stone, which being accomplished, however, I endeavoured by the gentlest traction to withdraw it entire from the bladder; but, in the attempt to do so, it broke into several pieces, the largest portion remaining within the blades of the forceps, the remainder requiring to be removed by the scoop; the bladder was afterwards carefully washed out with tepid water, to remove the fragments.

The broken portions of the calculus, collected together, weighed six drachms, nine grains; there was no appearance of lamellar structure in any part of it; but it was composed entirely of a mass of coherent granular crystals, of a dark red colour, water-worn, and eroded on the surface, and saturated in its interior with the urine in which it had been lying. Its consistence was that of mortar, recently set, and it crumbled easily on pressure between the fingers.

Chemical Composition.—A small quantity of the calculus being exposed to the action of the blowpipe, blackens, leaving a minute quantity of white ash. Pure potass is found to be a perfect solvent, the calculus being again precipitated by the addition of acetic acid to the solution. Strong nitric acid, poured on a fresh portion, dissolves it with effervescence; this solution being evaporated to dryness, and the residue treated with ammonia in excess, gives the characteristic purple red colour described by Parnell, which results prove that the calculus was composed of, as nearly as possible, pure uric acid.

The patient, with the exception of a slight attack of erysipelas in the perinæum, had a favourable recovery; and, on March 16th—a month and ten days from the date of the operation—I find, from my notes, that the dribbling from the bladder, from which he had formerly suffered so constantly, and which had continued for some time after he had recovered from the immediate effects of the operation, has ceased, and he is now able to retain his water in the bladder without inconvenience.

Remarks.—The foregoing cases, hastily extracted from my Hospital Note-book, will not, I trust, prove wholly uninteresting, inasmuch as they tend in some measure to illustrate a question, formerly much disputed, as to the power of internal remedies to effect, through the medium of the urine, the solution of urinary calculi. In the first case which I have recorded, I have no doubt but that the solution was completely accomplished by the means employed, assisted probably by the known natural tendency of uric acid concretions to become softened and disintegrated by the ordinary action of the urine; and there are several cases of this kind on record, and specimens are to be seen in the Museum of the College of Surgeons, and other collections in London, where this effect has been, at least partially, produced on such concretions. In the second case, it would appear that an approach had been made towards the solution of the stone, the peculiarly soft and friable nature of the fragments leaving little doubt that the calculus had, to some considerable extent, been acted upon by the urine, although some time had elapsed between the employment of the remedy and the performance of the operation; and I could not but regret that the treatment (which I have now every reason to believe would have had a favourable issue) had not been carried further, or, on the other hand, that I had not happened to choose the alternative of lithotrity, which, under the circumstances of the softened condition of the stone, might probably have been attended with more than usually favourable results, taking, of course, into consideration the difficulty of introducing a lithotrite into such a contracted bladder.

I would venture to remark, that, as it seems to be proved by admitted experience and observation, that uric acid calculi are capable of being superficially eroded, softened, and even dissolved, through the action of the urine either accidentally becoming alkaline, or made so through the action of internal remedies, I would certainly hesitate to perform any operation for the extraction or even breaking down of a calculus presumably of this nature, until I had given some such treatment as was pursued in these two cases a fair and reasonable trial. On the other hand, as there is every reason to believe that nothing has yet been discovered as a solvent, capable of influencing the chemical constitution of the mixed phosphatic and other alkaline concretions, at least within the bladder of a living person, I would, in such a case, not hesitate to resort to an operation, without wasting time in abortive efforts to effect what—at least, according to our present knowledge—may be considered an impossibility.

I am aware that a variety of remedies have at different times been proposed for the solution of the stone in the bladder, most of them, I believe, composed of alkaline ingredients; and a varied amount of benefit has been said to attend their administration; in some cases, so much relief has been experienced, that the patients, although they have been conscious, from their particular sensations, that the calculus still existed in the bladder, have, either through the altered condition of the urine, or a change in the surface of the stone, lost the continual suffering to which they had previously been subject, and have been able to go about their usual occupations in life without any considerable inconvenience; while, in other cases, the stone has been found, after death, to have become imbedded in the crypts of the bladder; thus escaping detection during life, and so was supposed to have been dissolved. This occurred in one or two of the cases treated by Mrs. Stephens's remedy; but I believe no instance of an actual solution of the calculus by these means has ever been recorded. In a remarkable case, that of Mr. Hay, recorded in Dr. Whytt's works, where the patient had taken this and other similar remedies for upwards of nine years, to the great relief of his sufferings, the stone, not encysted, was found in the bladder after death, very little changed, except on the surface, by the action of the medicine. The author, speaking of these effects, says, "That Mrs. Stephens's medicines, or soap and lime-water may give great relief to patients, and make them pass through life easily, even although they have little effect in dissolving the stone." The bad effects which must have occasionally attended the administration of these alkaline remedies, for the solution of mixed phosphatic and other calculi not strictly uric, were of course withheld from the public.

The annals of regular surgery furnish but few instances of the complete solution of calculi of any kind; and therefore I trust I shall be excused for obtruding the cases I have related, and the remarks they have called forth, upon the notice of the Profession.

P.S. Since writing the above, I have had an opportunity of reading a passage in the last edition of Dr. Golding Bird's valuable work upon the urine, in which he speaks of the occasional action of solvent remedies on uric calculi; and, as his remarks are in some measure explanatory of the effects I observed in the foregoing cases, I take the liberty of quoting them at length. It will be perceived, on a reference to that part of the work itself which relates to the composition of the solvent alluded to by the Author, that there is a difference between the chemical construction of the remedy employed in the foregoing cases, and that which has been so ably analysed and described by this distinguished writer, which may be a matter of no consequence, perhaps, in the main, as either of them administered in sufficient quantity and dilution, and under suitable regulations, would probably have the effect of inducing such an alkaline condition of the urine as might act beneficially upon a lithic acid stone.

I attributed much of the success which attended the first case to a careful and unremitting attention to the healthy respiratory and secerning functions of the skin, which were manifestly greatly at fault, and, indeed, appeared to be almost entirely suspended, a circumstance which I have frequently observed during the progress of calculous disorders in other cases, and which I have always considered an object of great importance to attend to in any kind of palliative treatment which I have adopted in such cases.

Speaking of the so-called "Constitution Water," Dr. Golding Bird remarks:—"There can be no question of the advantage that has resulted in some cases from the use of this remedy, nor, on the other hand, can there be any doubt of the injury it has inflicted when improperly administered. The secret of its success in uric acid gravel (the only class of cases in which it should be employed) depends upon the large quantity of alkaline salt ad-

ministered in twenty-four hours. Our doses are generally too small when alkalies are administered in such cases. I certainly owe the knowledge of this fact to some successful cases of the so-called "Constitution Water." I do now constantly prescribe, with very great advantage, especially in cases of pisiform uric acid gravel, in which patients will pass scores of calculi, of the size and appearance of mustard seed, at a time, in imitation of this preparation, from two to four drachms of bicarbonate of potass dissolved in thirty or forty ounces of water in the course of twenty-four hours."—"Dr. Golding Bird on the Urine," 4th edition, section 170.

Medical Times & Gazette.

SATURDAY, JUNE 11.

THE MEDICAL REFORM QUESTION.

The movement of Medical Reform is extremely slow, and the approaching advent of the dog-days does not seem to accelerate its steps. What with the prospect of a Turco-Russian war, the Dockyard Investigations, the Budget, and the Irish Brigade, the Government appear to have enough upon their hands, without embroiling themselves in the difficulties which beset the proposition of laws relating to the Medical Profession. The Bill of the Provincial Medical and Surgical Association appears likely to share the fate of its predecessors, and to be on the eve of consignment to the tomb of the Capulets, even before it has been hatched into Parliamentary existence. The extraordinary unanimity which was said to prevail among the Profession upon this measure we are at a loss to discover; and, in fact, at most of the meetings which have been held for its discussion, there appears to be a general dislike of many of its most important provisions. The General Practitioners throughout the country seem tired of waiting for any measure of Medical Reform; and although, if each individual were canvassed as to his opinion upon the proposed Bill, he would probably object to most of its details, yet the importance of the subject is not sufficient to call forth more than a sentiment of languid support in some quarters, and of feeble opposition in others. Those who advocate it, do so in the hope that, imperfect as it is, it may possibly lead to something better; they who oppose it are not strenuous in their hostility, because they think that its chance of passing the Legislature is merely chimerical.

We cannot but think, that the acquisition of a new Charter by the Royal College of Physicians would most materially advance the prospects of Medical Reform, and would be received with satisfaction by the Profession. There is, in fact, but little opposition to this Charter, except from the ranks of the College itself; and we feel bound to state, that this opposition has been met, on the part of the authorities at the College, in such a spirit as evinces their desire for an amicable adjustment of the differences which exist.

The new Charter of the College makes no concession to the General Practitioners, nor does it pretend to do so; on the contrary, it draws a distinct line of demarcation between the Physician, and the Practitioner who supplies the medical wants of the community. That any such distinction should exist, is to us a matter of regret; and we could desire that, whatever might be the social elevation of certain members of our Profession, they should all belong to the same College, enjoy the same rights, and be able to aspire to the same honours. Such, however, cannot be the case; and we must content ourselves with hoping that those who assume the honourable title and position of Physicians, will prove, by the superiority of their education, the strict integrity of their characters, and their practical knowledge of disease, that they possess a right to such an elevation. The faults of the College, at the present day, are to be attributed rather to the limited nature of its powers, than to the wilful neglect or perversity of its rulers, who have exhibited, we think, a degree of liberality which is highly creditable. We do not desire the destruction of old institutions, but their adaptation to the wants of successive races of mankind. The Charter of Henry VIII. is, of course, inapplicable to the present day; and we should rejoice to see, before the end of the Session, that the College is remodeled in such a manner as to render it really a National Institution, worthy of the present advanced and intelligent age, and of the noble Profession over which it presides.

We are gratified to find, that Lord Palmerston, in answer to a question by Lord Dudley Stuart, has announced the intention of the Government to introduce a measure for the re-organisation of the College of Physicians; and we trust that no unforeseen circumstances will intervene to prevent so desirable a step.

When the proposed Charter has become a part of the law of the land, and when the rank and status of those who practise as Physicians have been accurately defined, it will then be time to consider the condition of the General Practitioners, and to fix their position in the social scale. Our advice to that great body of our professional brethren would be, to refuse to submit to an inferior examination and an inferior title from a College with which they have no organic connexion, but to struggle for an independent position and the right of self-government. The liberty given to great masses of men to manage their own affairs by internal laws, is one of the most cherished features of our free institutions, as distinguished from those of almost all other countries in the world; and the privilege is no less valuable in the present day, than it was in the times of our Anglo-Saxon ancestors.

DISEASES OF THE SKIN.

It would appear from the subjoined notice, which we have observed inserted in almost every periodical, medical and non-medical, in the United Kingdom, that the knowledge of skin diseases has hitherto been unduly and culpably neglected in this country, notwithstanding the labours of Erasmus Wilson, Startin, Erichsen, Thomson, Willan, etc., and that the acquaintance with, and treatment of this class of affections, have been reserved for the medical officers or officer of an Institution entitled the Western Dispensary for Diseases of the Skin. It is gratifying to find, that, although the diseases generally known as *scorbutic* are supposed to be incurable, they have all been cured, or are in process of cure, at this Institution; and that, indeed, whether scorbutic or otherwise,—*not one case had been discharged as incurable*;—the *italics* not being ours, but those of the periodicals in which the announcement is inserted.

"Western Dispensary for Diseases of the Skin.—A meeting of the subscribers and friends of this Charity was held at the rooms of the Dispensary, 21, Charlotte-street, Fitzroy-square, on Tuesday, the 24th inst.; the Rev. Canon Dale, the President of the Institution, in the chair. The Report of the Committee stated, that, during the eighteen months' existence of the Dispensary, a large amount of good had been effected; that, although the diseases generally known by the term *scorbutic* are supposed to be incurable, yet, out of 442 patients admitted, 192 had already been discharged cured, 44 benefited, and the remainder, with very few exceptions, were advancing as rapidly towards

recovery as possible, under the chronic character and protracted duration of the disease. *Not one case had been discharged as incurable.* The medical gentlemen present, seven or eight in number, all spoke in high terms of the satisfaction they felt at this result, and complimented Mr. Hunt, the Surgeon to the Institution, for his perseverance and success. They likewise expressed their regret, that an Institution so useful to the afflicted poor, and so promising for the improvement of a neglected branch of medical science, was not better supported by the public. It was resolved, that the Report be printed and widely circulated."

In sober seriousness, we think that some enemy of Mr. Hunt must have caused the insertion of the above notice; and we cannot conceive the motive which could have actuated any malignant person to do such a serious injury to Mr. Hunt's professional reputation, as the extensive circulation of this very flagrant puff is calculated to inflict.

TABLE-MOVING.

We mentioned in our last Number, the desire which we felt to investigate the cause of this very common phenomenon, and to eliminate the small particle of physiological truth which is involved in the experiments, from the mass of error and absurdity by which it has been surrounded. We have, therefore, great pleasure in directing the attention of our readers to a report which has been drawn up on this subject, by gentlemen whose character and position in the Profession entitle their opinions to respect, and which will be found below. We have very little doubt, that the explanation which is there offered will be completely satisfactory to the Profession and to the public, containing, as it does, an admission of a fact in itself of some interest, and accounting for it upon principles which all physiologists will admit to be in strict accordance with the doctrines of modern science.

REPORT ON TABLE-MOVING.

When a number of persons sit or stand round a table, their fingers resting slightly upon it, it frequently, though not invariably, happens that the table begins to move; as soon as this motion is perceived, the experimenters follow its course, and turn round and round with more or less velocity; but as soon as the hands are removed from the table it gradually stops.

The latter part of the experiment—namely, the rotation of the table — involves a fallacy, for the rapidity of its movement is in no degree owing to any inherent power of motion in itself, but is solely due to the force unconsciously exerted upon it by the experimenters, and the velocity of the motion is entirely and directly proportionate to the amount of force expended upon it, in addition to the momentum it has already acquired in passing from a state of rest to one of motion. The table no more compels the persons to follow its movements than the garden-roller drags the gardener who pushes it before him; in both cases the *vis à tergo* is the moving force, and the table and the garden-roller do no more than obey the impulse communicated to them.

It must, however, be admitted, that the *first* movement of the table is not so easily explained, for the results of our own experiments, and those of other persons fully deserving of confidence, have placed the fact beyond a doubt, that this movement of the table is performed without any *conscious* effort on the part of the experimenters. It remains, therefore, to be shown by what mechanism this effect is produced, and we shall have no difficulty in solving the problem by reference to physiological principles which are well-known to the Profession. The fact is, that the movement in question is due to *involuntary* muscular action at the ends of the fingers, exerted upon the table. The *direction* of the movement is regulated, not by the *will*, but by the dominant *idea* in the mind, and the term *ideo-motor* may very properly express the action in question. It is necessary, however, to explain more fully the class of effects to which the term *ideo-motor* may be applied.

It is well known, that the movements of the human body may be divided into *voluntary* and *involuntary*. The actions of walking, of playing musical instruments, etc., are instances of the first; those of circulation and digestion are examples of the second. But there is also a class of actions comprising the ordinary phenomena of motion, which are certainly not under the control of the *will*, but which, nevertheless, are directed by the emotions or the *ideas*. Thus, the somnambulist walks in obedience to some mental impulse, while the will is dormant; and the person who dreams, often executes movements in which the will has no part, but which are excited by *ideas* or emotions. Again, although the will has no control over the action of the heart and arteries, yet the *ideas* and *emotions* exercise a distinct influence upon those organs; and when attention is directed to their pulsations in nervous persons, the movements have been accelerated or retarded, or have become intermittent. Now, in all these cases, the ideas or the emotions act upon and direct the movements without the intervention of the will. In the case of table-turning, the ideas are concentrated upon the expected movement, and the muscular apparatus of the fingers obeys, unconsciously to the experimenter, the dominant impression in the mind.

When a table is readily movable upon its feet, or upon castors, a small amount of force, voluntarily applied by the fingers, will cause it to revolve. This mobility is still more obvious when the force is distributed uniformly by a number of persons all round the table.

The amount of muscular force necessarily concerned in accomplishing the revolution is readily procured, independently of will. Let four or five persons place their distributed fingers upon some surface, and retain their position for a few minutes, unrelieved by change; let there be an expectation of some possible result, and there will soon be perceived a tingling in the skin, along the course of the muscles, and a degree of tension, which, without volition altogether, eventuates in *reflex*, or, as it would be styled in common language, *involuntary* action. In table-moving, there need not be any voluntary movement, for muscular tension, provoked by irritation, sensation, emotion, or fixed attention, will produce sufficient action to accomplish the expected result.

In order to demonstrate the true character of these phenomena, we ourselves performed some experiments, the particulars of which are subjoined.

June 3, 1853.—*1st Experiment.*—Four medical gentlemen sat round a small table, having a stem with three legs, but without castors. Each person placed his fingers lightly on the table, the little fingers of one person touching the little fingers of the person next him, and the *thumbs separated by a considerable interval.* In this experiment, it was determined that no expectant idea should be entertained, that the attention should not be fixed upon the table, and that ordinary conversation should be freely carried on. After sitting for twenty minutes, no effect whatever was produced. The experiment was commenced at 25 minutes past 7, and was continued until 45 minutes past 7.

2nd Experiment.—The same gentlemen placed themselves round the table, in exactly the same positions as in the last experiment. In this experiment, however, it was determined, that perfect silence should be maintained, that the thoughts should be concentrated upon *some* result, whatever it might be, but that no expectant idea should be entertained as to the direction which the table should take. The experiment was commenced at 12 minutes to 8; at 6 minutes to 8 the table began to move from right to left. After it had moved for some little time, the experiment was abandoned, as it was not thought necessary to follow its circumvolutions. Dr. C—— felt that his left arm was in a state of muscular tension before the table commenced moving. Dr. J—— felt pressure on his right little finger from Dr. C——'s left little finger, the pressure appearing to increase up to the time when the table began to move. Mr. N—— felt a tingling in the skin, as, also, a somewhat painful sense of muscular tension before the table began to move. After it began to move, his fingers and hands unintentionally, but instinctively, accommodated themselves to the movements of the table, the involuntary muscular actions being directed in the axis of movement of the table. Dr. S—— was not conscious of any movement whatever of his own muscles, or of those of the gentlemen to his right and left, and his mind was wholly indifferent as to the direction which the table would take.

3rd Experiment.—It was now determined that perfect silence should be maintained, that the thoughts should be concentrated upon the movement of the table, and that an expectant idea should be entertained of the table moving from left to right. The experiment was performed by the same gentlemen as before and in the same positions. It was commenced at 7 minutes past 8, and at 15 minutes past 8 the table began to turn from left to right, but in two minutes it suddenly reversed its direction, and turned from right to left. This latter phenomenon was owing to Mr. N——, (without mentioning the circumstance to the rest,) exerting a distinct voluntary force in the opposite direction to that in which the table was moving.

4th Experiment.—The same gentlemen sat down in the same positions as before; but on this occasion it was determined that Dr. C—— and Mr. N—— should anticipate a movement of the table from right to left, but that Dr. J—— and Dr. S—— should entertain the contrary idea. The experiment was commenced at 25 minutes past 8, and it was continued till 20 minutes to 9, but no effect whatever was produced.

June 1, 1853.—*5th Experiment.*—This experiment was made upon a large, round, drawing-room table, moving upon castors. Eight ladies stood round it, with their fingers resting upon the table, and their little fingers in contact with the little fingers of those standing to their right and left. It was determined to will that the table should move from right to left. In one minute and a-half it moved from left to right.

6th Experiment.—A lady placed both her hands flat on the table, which in this case was a small and light one; and it moved in two minutes from left to right.

7th Experiment.—Four gentlemen and four ladies placed themselves round the large drawing-room table mentioned in the 5th Experiment. They assumed successively the standing, the kneeling, and the sitting postures; but, after waiting for twenty-five minutes, no result whatever was produced. The four gentlemen then withdrew, and four ladies then took their places, thus placing eight ladies round the table. It moved in two minutes.

These experiments we consider to be so conclusive, that comment is hardly necessary. The conditions of the bodies to be moved, and of the human forces by which the movement is accomplished, are precisely those which, *à priori*, we should have anticipated. A small table is moved more readily than a large one, and it is moved more easily upon an oil-cloth than upon a carpet; it is moved more easily by females than by males, because, in the former, the muscles are more mobile, *the will less strong*, the emotions more acute, the ideas more vivid. It is said, that young persons succeed better than persons advanced in years,—a fact which may be readily explained upon the same principles.

We would especially call attention to the few words in the last sentence but one, which state our opinion, that it is *weakness*, and not *strength* of will which readiness to assume these involuntary actions testifies. The more powerful the higher faculties of the mind, the less quickly do the muscles act on the impulsion of the ideas only. In men, where the intellect is naturally stronger, and in adults, where it is strengthened by use, the manifestations of ideomotor acts are repressed. And we would call attention to this fact for a practical purpose, viz., with the object of cautioning the public, through our readers, against trying these sort of experiments too often. It is very certain, that each trial renders the "table mover" more ready at exhibiting the required phenomena, more under the dominion of ideas, and less under the dominion of rational will. Each trial, then, must weaken the intellectual powers, must make the experimenter less a man, and more an instinct-governed animal. The peculiar state of mind induced, is not, perhaps, either hysteria or insanity; but it is akin to both.

The experiment, now so often repeated, of suspending a ring by a thread coiled round the finger, placing the ring within a tumbler, and hearing it strike the glass as many times as correspond to the hour, is a phenomenon analogous to table-moving, and very interesting in a physiological point of view. The person who performs the experiment exercises no *voluntary* action upon the movements of the ring; but he knows the hour, and, from this *idea* acting unconsciously upon the organisation, a series of involuntary muscular vibrations are produced, which result in striking the glass the required number of times.

PARLIAMENTARY INTELLIGENCE.

MEDICAL REFORM.

THE CHARTER OF THE COLLEGE OF PHYSICIANS.—THE BYE-LAWS OF THE PHARMACEUTICAL SOCIETY.

In the House of Commons, on Thursday night, Lord Dudley Stuart put the following questions to Viscount Palmerston:—

Whether it is the intention of the Government to introduce a Bill, during this present session of Parliament, for the better regulation of the laws relating to the profession of physic and surgery. Whether it is the intention of Her Majesty's Government to introduce a Bill, empowering Her Majesty to grant a new Charter of Incorporation to the Royal College of Physicians of London. Whether, in conformity with the Pharmacy Act, there have been submitted for approval to the Home-Secretary, bye-laws for the regulation of the Pharmaceutical Society of Great Britain, and whether those bye-laws have been approved of. Whether there has been forwarded to the Home-Secretary the opinion of counsel, declaring those bye-laws to be illegal and unjust, and contrary to the spirit and intention of the Pharmacy Act of the last Parliament.

Lord Palmerston said, in answer to the first question of his noble friend, he had to observe that the present condition of the Medical Profession in this country was one that required considerable regulation and amendment. It was, in fact, a labyrinth and a chaos owing to the many different sources whence degrees and licences to practise in the different branches of the Profession arose. The question was very complicated, and he certainly had no hopes of being able to bring forward a measure which would embrace the whole subject this year. With regard to granting a new charter to the College of Physicians, he hoped to be able to bring in a Bill in the course of the present session which should either enable that body to work efficiently, or which should incorporate the charter which was required to be granted. With respect to the Pharmaceutical Society, he had had a code of bye-laws submitted to him, which was now under consideration. There were persons who objected to that code, and those persons had sent to him a legal opinion on the subject—in fact, the opinion mentioned by his noble friend. But it should be remembered, that that opinion was founded upon a case stated by those who objected to the bye-laws, and the House must, of course, make some allowance in consideration of that circumstance. He would endeavour to ascertain from an impartial authority whether there was any good foundation for these bye-laws or not.

UNION MEDICAL OFFICERS (IRELAND).

Mr. J. Fitzgerald asked the Secretary to the Treasury, whether Her Majesty's Government had taken into consideration the matter of certain Petitions from Poor-law Unions in Ireland, recently presented to the House, seeking to have the medical officers for poor relief in Ireland placed on the same footing as in England, as to the provision made for payment of part of their salaries out of the public revenue; and also, whether it was the intention of Government to comply with the prayer of such Petitions, and to make any further provision for the relief of Poor-law Unions in Ireland from the payment of any portion of the educational or other establishment expenses with which they were at present charged?

Mr. Wilson said, the memorials referred to by his hon. friend had not been presented to Her Majesty's Government. If they had it would then have been the duty of the Treasury to consider the matter. As it was, they were not at present in a position to say anything upon the subject.

MEDICAL REFORM.

On Monday, Mr. Cowan presented a Petition from the members of the Medico-Chirurgical Society of Edinburgh, signed by a large number of the Medical Practitioners, Graduates, and Professors, in the University of Edinburgh, complaining, that by the existing state of the law they are restrained from the exercise of their Profession in different parts of the Kingdom; and praying for a measure securing equality of legal privilege to Medical Practitioners wherever they may practise, as a most important and sanitary measure for the

public. Also, by Mr. Cobbett, from eight Medical Practitioners of Oldham; Mr. Corbally, from Treen Union, praying, that a portion of the salaries of the Medical Officers should be borne by the Consolidated Fund; Mr. Bateson, from the Board of Guardians of the Coleraine Union, to the same effect; Lord Goderich, from members of the Medical Profession, at Marsden, West Riding of Yorkshire, for Medical Reform.

VACCINATION BILL.

A Petition was also presented from members of the Medical Profession, at Huddersfield and its vicinity, for an Amendment in this Bill.

MEDICAL CHARITIES ACT.

On Wednesday, Mr. J. Greene presented a Petition from the Poor-law Guardians of Urlingford Union, against this Act.

REVIEWS.

Change of Climate, Considered as a Remedy in Dyspeptic, Pulmonary, and other Chronic Affections. With an Account of the most Eligible Places of Residence for Invalids in Spain, Portugal, Algeria, etc., at Different Seasons of the Year; and an Appendix on the Mineral Springs of the Pyrenees, Vichy, and Aix les Bains. By D. J. T. Francis, M.D., etc. Small 8vo. Pp. 339. London: Churchill. 1853.

We need not write an essay to prove, that change of climate forms a most valuable remedial measure, when properly employed,—when care is taken to select the climate calculated not only to cure the particular malady, but also to suit the constitution of the invalid to whom it may be recommended. As with medicines, and all other remedies for the cure or relief of disease, everything depends upon their being skilfully prescribed; so with change of air, unless the proper climate be chosen, the result will merely be disappointment and useless trouble. Now, it is a strange circumstance, but one which we believe to be true, that medical practitioners are hardly as well acquainted as they should be with the different varieties of climate existing in different countries,—many being contented with the shallow knowledge, that, as we advance northwards, we encounter a cold, bracing atmosphere; as we proceed southwards, a warm, unruffled air, a blue sky, and perpetual sunshine. In seeking for a cause of this ignorance, we lose ourselves in conjecture; but it is at least clear, that, with the admirable treatises of Sir James Clark, Dr. Burgess, and the summary account given by Pereira in his work on the Materia Medica, it cannot be for the want of means for enlightenment and instruction. Should such, however, have been hitherto the excuse of any one, even this slender plea is now removed by the publication of Dr. Francis's book. Written in a clear, terse, and agreeable manner, this work deserves the attention of all practitioners of medicine; and in recommending it to our readers we beg to assure them, that they will not only derive much useful and valuable information, but also much pleasure from its perusal. It is worthy of mention, that this book is not a mere compilation or a digest of the knowledge of others, but is the fruit of actual residence and travel in the countries described; and, with reference to Spain in particular, it is the only work with which we are acquainted in which are detailed the special merits and demerits of this country as a place of residence for certain classes of invalids.

The following remarks on the varieties of climates will give some idea of the tone and general style of the work:—

"The constitutions of many persons are so nicely balanced, that they are but little sensible to the influence of those ordinary changes of climate to which moderate travelling commonly exposes us. Whether these persons breathe the soft air of southern Devonshire, or climb the hills of Malvern, the same health, the same spirits, the same strength, attend them, *cœlum non animum mutat.* The happy elasticity of their system adapts it readily to all ordinary variations of atmosphere. These are the persons who, drawing their ideas from their own sensations, are sometimes apt to be sceptical as to the reality of those influences upon others; or to find in them subjects for playful remark, sometimes even to view as fancy and caprice, the necessity which obliges many persons, with a view to their restoration of health, to pass an occasional season away from their usual abode, or to go rambling about from place to place. And yet this is a real necessity in the case of many little ailments, *nullis medicabiles herbis,* which refinement, high civilization, and mental labour, impose upon the susceptible and delicate. As a general rule, however, people are fully alive to the different effects which different kinds of atmosphere produce on the health. And these effects, so far as they do not depend on mere temperature, have led to the arrangement of climates under two classes—those which habitually brace and stimulate the body and raise the spirits, and those, the effect of which is to relax, subdue, depress. The former seem to derive their properties chiefly from the dryness of the air, although it is somewhat doubtful if that condition alone is sufficient, in all cases, for their production. These are the climates which, when they are not extreme, are found to agree best with the greater number of invalids who leave England on account of their health; morbid states, in which there is more or less of general debility, when unattended with active symptoms, usually experiencing relief under their influence. This class of climates may be termed tonic, and, like the medicines of the same name, are contra-indicated in all cases where there is anything like inflammation or irritation, or a natural susceptibility of those morbid states." P. 26.

This extract will enable our readers to form some idea of the manner in which Dr. Francis has treated his subject. We need only say, in conclusion, therefore, that the whole work is a very meritorious production, and, undoubtedly, deserves careful perusal by every medical practitioner.

Modern Domestic Medicine: a Popular Treatise, Describing the Symptoms, Causes, Distinction, and Correct Treatment of the Diseases Incident to the Human Frame; Embracing the Modern Improvements in Medicine. To which are added, a Domestic Materia Medica, a Copious Collection of Approved Prescriptions, etc., etc.; together with an Appendix on the Cold-water System. The Whole intended as a Comprehensive Medical Guide, for the Use of Clergymen, Heads of Families, and Emigrants, in the absence of their Medical Adviser. By Thomas J. Graham, M.D., etc. 8vo. Pp. 773. London. 1853.

This is a new edition of a work better known to the public than to the Profession; and, judging from its contents, we think it had better remain so. That clergymen and heads of families may be enabled to treat disease after its perusal we doubt not, remembering the proverbial rashness of ignorance, and the danger of a little knowledge. To such it will be but of little consequence whether we praise or condemn Domestic Medicine; practise it they will, and doubtless with its usual consequences. But, if we might say a word to these injudicious friends of the Faculty, (for friends they are, if they who increase the severity of disease are to be regarded as friends,) we would strongly advise them to devote their spare time and energies to table-turning, and such other wonders as are not dreamed of in our philosophy. Wood, and similar forms of inanimate matter will serve much better, and behave much better, under experiment, than human beings; and we will venture to predict, that the consequences will be much more satisfactory.

A Concise Practical Treatise on Neuralgia, its Various Forms, Pathology, and Treatment. By Edwin Morris, M.D., F.R.C.S., Surgeon to the Union Infirmary. 8vo. Pp. 49. Spalding: Edward Gilbert.

Dr. Morris is a Practitioner of considerable reputation in the county in which he resides, and has already transmitted many communications of value to the London and Provincial Journals. The little work before us was originally published in the "Provincial Medical and Surgical Transactions;" and the author has considered it of sufficient importance to warrant separate publication; and it really is, as he calls it, a concise practical treatise on the very important subject—Neuralgia,—a disorder which is particularly prevalent in that portion of the country in which the author resides, consequently the reader will not probably expect to find any thing new in the work. The nature and various forms of the disease are clearly described; and the author gives an account of the several methods of treatment which are usually adopted to allay its torments. One of the most

disputed and questionable points in reference to the treatment of neuralgia is, that, by division of the affected nerve, Mr. Morris states, that, in some cases of such operation, a complete cure has been produced. If he has seen any such, he has been more fortunate than many of his brethren. Relief and complete relief, for a shorter or longer interval, has been undoubtedly given. Of this we have been repeated witnesses, and, therefore, the Practitioner is quite justified in recommending a patient to submit to this operation, when the pain is distinctly traceable to a single nervous trunk; but, as a general rule, he ought not to hold out hopes of ultimate cure. One of the cases mentioned of cure by operation was not reported beyond the fourth month afterwards, and this length of time is not sufficient to test its permanent effects.

Numerous illustrative cases, treated by himself as well as by others, are related by the author, in an appendix to the work, which the author has written concisely, clearly, and modestly.

PROGRESS OF MEDICAL SCIENCE.

SELECTIONS FROM FOREIGN JOURNALS.

TUBERCULOSIS OF THE VAGINA.

By R. VIRCHOW.

Some time ago, I had an opportunity of witnessing, in an old woman, an affection hitherto unknown to me. The patient had long suffered from dysuria, and there was found, after death, very extensive tuberculosis of the urinary organs. The upper part of the right kidney was in great part destroyed; the corresponding parts of the infundibula and pelvis in a state of cheesy ulceration; the remaining part of the renal pelvis and the right ureter studded throughout with small knots, partly grey and solid, partly white and ulcerous. Even in the cortical substance of the kidney there were found yellow knots. The urinary bladder was, in the upper part, thickly granular, with numerous little groups of grey knots; at the lower part, by the neck and urethra, it was hyperæmic, and studded with more isolated and finer grey tubercles. In the vagina there was found a similar eruption, mostly arranged in groups upon a base of red and injected mucous membrane, each single tubercle appearing as a fine grey pearl. They were sparingly distributed at the entrance of the vagina. They had not ulcerated in any part. Under the microscope they appeared to consist of granular masses, composed of soft cells,—a deposit which constitutes, in all cases, recently-formed tubercle. I saw none in the rectum or in the uterus of this patient.—*Virchow's Archiv.* 1853.

[A case of tuberculosis of the lining membrane of the uterus has been recorded by Mr. Holmes Coote in the pages of this Journal.]

CELLS CONTAINING BLOOD-CORPUSCLES.

Virchow holds, that cells containing blood-corpuscles have never been seen, except in situations where there previously existed cells of precisely similar form; that such cells are soft and yielding, and lie pressed together, as in the spleen. The same pressure, which causes the extravasation of the blood-corpuscles, leads to their intravasation into the cells. He asks, whether it be difficult to think, that the blood, which streams from a ruptured spot in the arterial wall, can permeate the soft structures into which it is effused. Of hypothetical apertures in the cells which subsequently close, there is the same difficulty as with regard to the wall of the vessel itself, unless the exploded doctrine of diapedesis sanguinis be still retained.—*Op. cit.*

DISEASE IN BADEN CAUSED BY RELIGIOUS EXCITEMENT.

[Communicated by the Rev. — SCHLATTER.]

About the end of January, 1851, a girl, aged 13, of pale complexion and excitable temperament, was seized with singularly strong convulsions during the performance of the burial service in the churchyard at the little village of Niedereggenen, between Friburg and Basle. A few days afterwards, the same occurrence took place with a strong girl, aged 10, in the church. These convulsions now attacked, in rapid succession, eleven children, in the same school, of ages varying from 10 to 13. Subsequently, one girl of 16, and another of 19, were seized; the last one became convulsed as she was looking at a child already ill of the same disorder. The parents of this girl, who believed in the influence of witchcraft, applied all sorts of charms and supernatural remedies, but without avail. The author seems to have reasoned with the children, and gradually to have acquired over them such influence, that the convulsions ceased. About Easter, 1852, one of the children, Judith Zöllen, passed into the following state: She became stiff in bed, closed the eyes, and commenced singing. In this condition she remained an hour, quoting the Bible in rhyme, and repeating verses and moral sentences in a very impressive way. These performances took place daily, mostly about nine or ten of an evening, sometimes twice or thrice a-day. She determined in her sleep the time of their return. She asserted, that she had all sorts of visions, which bore, more than her speeches, the impression of childishness and absurdity. She desired that more of her schoolfellows should be laid in the same bed, as she was convinced that they would hear and see the same. Her request was granted, and five more children soon began to sing, speak, and pray in a similar fashion. The medical men and the police then interfered to prevent further exhibitions. The state of the six children remained for some time the same. When separated and sent home, they were observed to repeat what they had last heard in church, or during the hours of religious instruction. It is most remarkable, observes the learned author, that the children, during these periods, spoke a fluent German, fit to be taken down, and not at all such language as was usual to them. The fits are gradually subsiding, and attack only three children now. The vanity of the children becomes more apparent, and the exhibition is losing it piquancy.—*Seifert's Review; Schmidt's Jahrbuch.*

This discreditable exhibition, in which the vanity of the children was only equalled by the credulity of the observers, has occurred at a right epoch, when bleeding pictures and prophesying tables gather round them their crowds of believers. Judicious restraint from the first would have prevented the spread of these phenomena, which show what an imitative animal even the child may become.

PROVINCIAL CORRESPONDENCE.

SCOTLAND.

DOINGS IN THE NORTH.

Edinburgh, June 6, 1853.

The present season is not one in which much usually occurs to agitate the Medical world. The storms of winter have passed away, and the cheering sunshine and brilliant foliage of gladsome spring are suggestive of enjoyments of a kind very different from the harsh controversies of winter and the biting blasts which Boreas could scarcely rival. The cold and ungenial weather which we have been experiencing seems, however, to have affected the moral and intellectual equally with the physical atmosphere; and the usual occupations of winter have been prolonged somewhat more than usual over that period which nominally, though not actually, we are compelled to regard as summer.

AMPUTATION AT THE KNEE-JOINT.

A subject to which I have more than once alluded has been discussed at the Medico-Chirurgical Society, and truth compels me to say, not at all to the credit of the operation.

The subject was introduced by Dr. Mackenzie, in an able paper, in which, in addition to his own experience in two cases, he detailed all that was known regarding the operation. Its merits could scarcely have had a better advocate, and I have no doubt that, when he concluded, every one present felt as I did, that he had made out an excellent case. Soon, however, this delusion was dispelled; for Mr. Syme rose, and, making certainly by far the best public appearance I ever saw saw him do, delivered an able and temperate speech against the operation. He stated his own experience, and how he had been led by it to abandon its performance, after having at one time been most sanguine as to its success. The whole speech was of a most telling description.

He was ably supported by Professor Millar, who, by some unaccountable caprice, lavished all his talents for flattery on the man

whom he is accustomed in general to attack. How this was relished by Professor Syme, we could not discern; certain it is, that it was not thought much to his credit by the other members. Dr. Mackenzie had no one to support him but Dr. Gillespie, the son of the veteran practitioner of that name. We suspect the general decision of the Profession was rather against the operation.

A rather clever flank movement was executed in the course of the discussion by Mackenzie. Mr. Syme had dwelt at great length on a sad description given by Professor Ferguson of the results of an operation of this nature. Suddenly Mackenzie reminded him, that the case so amusingly described by Professor Ferguson was one in which Mr. Syme had himself operated. This, of course, changed the spirit of the clinical professor's dream. The operation was bad in principle, and bad in practice,—this was the proposition he had unhesitatingly maintained; but then, side by side with it lay another, which was anything but a corollary from it, that no operation performed by him could ever fail; and his attempt to reconcile these, occasioned considerable amusement.

Of the proceedings at the last meeting the less we say the better. The performances were poor in the extreme; but as the performers were not much worthy of note, we shall not direct attention to them. One thing, however, it is pleasing to notice, that our remarks seem to have awakened a desire of self-reformation in the Medico-Chirurgical, and that the first instalment was granted with some demurrage on Wednesday. Nor is it only on the body at large that we seem to exercise a salutary tendency. Individuals, too, have profited by our castigations. A number of the *Monthly Journal* has actually appeared without a single Bennetism, greatly to the elevation of its tone, and the improvement of its character.

Sulkiness, however, is not the proper effect of chastisement, and we beg to assure Drs. Bennet and Wood, that their absenting themselves from the Society will not save them, as the temperament of neither will allow of a complete withdrawal from public life.

GENERAL CORRESPONDENCE.

TABLE PROPHESYING.

[To the Editor of the Medical Times and Gazette.]

Sir,—It appears that we know in England but half what a strong mind may do with a weak table. The Germans are not content with making this useful piece of furniture turn round, to the utter destruction, we should think, of the carpet,—they make it prophesy! We have heard of tables prancing on two legs, following their masters like dogs, or dashing insanely into the fireplace; such exhibitions, interesting as they may be, are practically useless. The spirit of prophecy, however, is another thing, and will prove to those who believe in it a great physiological fact, namely, that the brain of man is not the seat of the intellect. Let me explain this last wonder:—The Professor and the table, the latter in fit state, stand opposite one another, "How many gulden did you cost when new?" asks the Professor. "Creak, creak, creak," etc., replies the mahogany, until the number is complete. "How many gulden will you bring when you are next sold?" "Creak, creak, creak," etc. Will it be believed, that this nonsense is received and practised by learned members of a University on the banks of the Rhine!

But it has reached the capital of Prussia; Berlin has its prophesying tables; and wedded people, anxious of offspring, seek from this worthy oracle a solution of their doubts and fears.

It is currently reported, that a married lady, whose thoughts ran much upon this subject, consulted the table, by the aid of a professor, in the most approved fashion. Four distinct creaks were heard in reply to her demand, how many children she was to have. She returned in high spirits to inform her husband, who, being anxious to have the welcome tidings confirmed, repaired by himself to the oracle. How many children am I to have? "Creak, creak,"—only two!

He could not learn whence the last two which were to bless his wife were to come.

I fear, Mr. Editor, you may imagine that I jest. I entreat you to dismiss such an idea; table-turning is rapidly yielding to the superior attractions of table-prophesying; and, in thus exposing this melancholy exhibition of the degradation of the human mind, I wish to warn my countrymen against fostering this latest folly. It was the opinion of Niebuhr, that the human intellect was deteriorating, and that mankind was retrograding over the Continent. That opinion, at one time scorned, is now shared by many. It is the interest of despotic Governments to repress education and enlightenment, and the effects of such a system become apparent in the mind and the morals of the community.

I am, &c. H. C.

VACCINATION EXTENSION BILL.

[To the Editor of the Medical Times and Gazette.]

Sir,—Will you be so kind as to insert the following Petition in your valuable Journal, presented to the House of Commons by Lord Goderich, from the Medico-Ethical Society of Huddersfield. It deserves to be imitated by the Profession generally.

I am, &c. Samuel Booth.

35, Queen-street, Huddersfield.

"To the Honourable the Commons of the United Kingdom of Great Britain and Ireland in Parliament assembled.

"The Petition of the undersigned members of the Medical profession in the town of Huddersfield and its vicinity, humbly showeth, that while they regard the Vaccination Extension Bill now before your honourable House as intended for the benefit and protection of the nation from small-pox, they, nevertheless, are convinced, that many of the provisions of that Bill are defective, and some bear unjustly upon the members of the Medical Profession.

"That while the Bill enforces vaccination within a certain age, and renders the parents and guardians of the child responsible for its omission, it does not enforce the obligation to return with the children on the eighth day for inspection, and to supply the medical practitioner with fresh lymph.

"That the onus of transmitting a duplicate of the said certificate of vaccination to the Registrar of Births and Deaths, would, to say the least, be unreasonable, seeing that the Medical Practitioner is shut out from all remuneration.

"In conclusion, your petitioners further suggest, that, with regard to the poor, the parents be permitted to apply to their usual medical attendant, who shall be remunerated for every successful case of vaccination by a uniform scale of charges throughout the Kingdom; and they think the public confidence would thus be better secured, and the full benefits of vaccination obtained.

"Your Petitioners, therefore, humbly pray your Honourable House to make such alterations and amendments in the Vaccination Extension Bill as in your judgment you may deem desirable.

"And your Petitioners will ever pray, etc.

(Signed by)

"William Turnbull, Esq., M.D., President of the Medico-Ethical Society.
George Robinson, Esq., Vice-president.
Samuel Booth, Esq., Treasurer.
G. W. Rhodes, Esq., Wm. Scott, Esq., } Honorary Secretaries.
Edward Lees, Esq., Surgeon, etc., Honley.

James Roberts, Esq.,	ditto	Golcar.
Jos. Hesselgrave, Esq.,	ditto	Marsden.
John Dow, Esq.,	ditto	Lockwood.
Fred. Greenwood, Esq.,	ditto	Huddersfield.
Wm. Robinson, Esq.,	ditto	ditto
Thomas A. Haigh, Esq.,	ditto	Meltham.
R. S. Fielding, Esq.,	ditto	Lindley.
Samuel Knaggs, Esq.,	ditto	Huddersfield.
Wm. Greenwood, Esq.,	ditto	ditto
John T. Bradshaw, Esq.,	ditto	ditto
Richard Sissons, Esq.,	ditto	ditto
T. R. Tatham, Esq.,	ditto	ditto
T. A. Bottomley, Esq.,	ditto	ditto
Richard Allat, Esq.,	ditto	Paddock."

Prize.—The annual prize for the best essay on the subject of Insanity, offered by the Society for Improving the Condition of the Insane, has this year been awarded to Dr. D. H. Tuke, of York. The subject for competition:—"The Progress of the Treatment of the Insane since the Time of Pinel, and the Contrivances which have been Adopted in Lieu of Mechanical Restraint."

Yellow Fever.—When the last outward mails were landed at the island of Dominica, in the West Indies, the Governor was just recovering from the yellow fever, and his wife had recently died from that disease. Not a single medical officer was in the town. The troops were all encamped in the mountains, to avoid the fever.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

Dr. Babington, F.R.S., President, in the Chair.

ENORMOUSLY DILATED STOMACH.

Dr. Miller exhibited for Mr. Humby a specimen of an enormously distended stomach, and related the following particulars respecting the patient from whom it was taken:—A lady, 48 years of age, was seized with vomiting on the night of the 6th of March, which continued till the following morning. The fluid ejected was enormous in quantity, amounting to five wash-hand basinsfull. The abdomen was lax and soft, and no pain was communicated by pressure. On the following day, Dr. Moore, under whose care the lady had previously been, saw the case in conjunction with Mr. Humby. The vomiting had somewhat subsided; the tongue was dry; the bowels had been relieved by enemata; the abdomen was somewhat depressed; gurgling was perceptible in the epigastric region; and an unusual hardness was felt in the right hypochondrium. On the 10th of March, four days from the seizure, the severe vomiting had ceased, and it was then found that the whole of the left side of the abdomen, as far forwards as a line drawn from the ensiform cartilage to the right anterior spinous process of the ilium, was largely swollen, and quite tympanitic. The pulse was regular, and had acquired increased frequency. On the 11th, the tumour, instead of being tympanitic, was dull on percussion, and fluctuated. The patient was seen by Dr. Watson on the 14th, and that gentleman, after adverting to the difficulties which the case presented, said, he thought the abdominal swelling was caused by a stomach preternaturally distended and containing fluid, and he thought it probable that some mechanical obstruction of the bowels existed. On the 10th, she was seen by Dr. Bright, who formed a different opinion to Dr. Watson respecting the nature of the disease. On the 17th she expired. On examining the body, the stomach was found to be excessively enlarged, and to occupy the locality in which the abdominal tumour presented itself. The muscular fibres had in many places become fairly separated; so that the submucous and subperitoneal coats were in contact. The cavity of the organ was capable of holding ten pints and a-half of fluid. The small intestines, contracted to a very small size, were completely pushed down into the cavity of the pelvis. There was no appearance whatever of malignant disease. Abundant specimens of the sarcina ventriculi were discovered by Dr. Miller in the fluid ejected from the stomach. The chief features of interest in the case appear to have been the absence of abdominal pain, and the extreme difficulty of forming a correct diagnosis respecting the disease.

MALFORMATION OF THE UMBILICAL CORD.

Dr. Crisp presented two specimens of twisting and adhesion of the umbilical cord, which, he thought, must have taken place at a very early period of growth, as both the children were of the usual size, well-formed, and born at the full time.

CALCAREOUS CONCRETIONS OF THE PERITONEUM.

Dr. Crisp exhibited a specimen of this affection, which had been purchased at the sale of the preparations of the late Mr. Langstaff, and had been described in the catalogue as "a portion of peritoneum dried, showing osseous concretions." Nothing appeared to be known respecting the history of the case. The peritoneum was thickly studded with hard, dry, nodulated, and irregularly-shaped bodies, which varied in size from a pin's head to a pea, and were covered with a layer of serous membrane. On immersing them in dilute hydrochloric acid, these bodies were partially dissolved. A section, examined by a magnifying power of 250 diameters, exhibited an irregularly granular aspect, without any appearance of definite organisation. Such a section presented a great structural similarity to those of calcareous deposits taken from other parts, such as ossified tumour of the uterus, calcareous deposition in the theca vertebralis, calcareous deposit in the aorta, etc.

Some discussion relative to this preparation ensued, in the course of which it was suggested, that the specimen exhibited by Dr. Crisp might have originated in tubercular disease of the peritoneum, which subsequently underwent calcareous change.

SOFTENING OF THE BRAIN.—PUS IN THE ORBIT.—FIBRIN IN THE SINUSES OF THE BRAIN.

Morbid specimens, exemplifying the pathological changes noted above, were exhibited by Dr. J. W. Ogle, who furnished the following account of the case from which they were obtained:—The patient, a woman aged 22, was taken into St. George's Hospital three weeks before her death. At that time her face was much flushed, and there was considerable swelling of the left side of the neck and face, the left eyeball protruded exceedingly, and there was ptosis of the left eyelid. The eye could be slightly moved in all directions, but was drawn permanently inwards. Both pupils were dilated, especially the right; the right iris, also, contracted more sluggishly than the left. The patient said she could see best with the left eye. There was a copious discharge from the left ear, and a complete loss of hearing on that side. There was great difficulty in opening the mouth and in swallowing, as well as occasional hiccough. On forcible closure of the mouth, the left side appeared to be the weakest. The pulse was 150, regular; the tongue dry. During the night the patient became delirious, and died a few hours after her admission. It was ascertained, that for some time before her admission she had suffered from epilepsy, and once she had attempted to poison herself. About four months before her death, she married a second time, her first husband being still living; and this circumstance preyed on her mind and depressed her greatly. It could not be clearly ascertained whether she had epileptic fits before her second marriage. On *post-mortem* examination, the dura mater was found adherent to the calvarium over the left cerebral hemisphere. The tentorium cerebelli on the left side was firmly adherent to the upper surface of the cerebellum, and at the base of the brain the dura mater was covered by a layer of yellow fibrin. The subarachnoid tissue generally contained much bloody fluid. On section, the substance of the brain exhibited numbers of the "puncta vasculosa," and in the right cerebral hemisphere, a little above the level of the corpus callosum, was an oval patch of softened tissue, of a pinkish colour. The ventricles contained much limpid fluid. The lateral, as well as both petrosal sinuses, and the cavernous sinus on the left side, contained much parti-coloured fibrin, which was in places firmly adherent to their parietes. The ophthalmic vein contained fibrin adherent to its walls, and within the orbit, behind the eyeball, was a large quantity of pus. The left membrana tympani was destroyed, and there was considerable disease of the tympanum; but the internal ear itself was unaffected. There was recent fibrin in the pleural sacs, and in one or two spots the lungs were hepatized. The heart was healthy. The kidneys were fatty, but the other abdominal organs were healthy.

ARREST OF BONE IN THE ŒSOPHAGUS, AND CONSEQUENT DISEASE OF THE SPINAL MARROW, WITH ULCERATION OF AN INTERVERTEBRAL CARTILAGE.

Exhibited by Dr. J. W. Ogle, who gave the following account of the case:—

The patient, a man fifty years old, got the fragment of a mutton bone impacted in the œsophagus. This was disgorged spontaneously some time afterwards, and its removal was followed by much cough, difficulty of swallowing, and discharge of purulent matter. This discharge continued, and weakened him considerably. Under appropriate treatment, however, he began to amend, when he suddenly became unable to move his arms, or to feed himself. This took place about five weeks after the accident. Subsequently he ceased to exercise any command over his sphincters, and lost all power of movement in the lower limbs. He had also increased dysphagia. He experienced, however, no loss of sensation in any part of his body until a few days before his death. His mental powers remained unimpaired to the last. On *post-mortem* examination, the œsophagus was found, at one point, to be greatly constricted for about an inch and a-half; there was, however, no aperture in its wall. There was a large collection of pus between the œsophagus and vertebral column, and the intervertebral cartilage, between the fourth and fifth cervical vertebræ, was perforated by an ulcerated aperture, which passed backwards into the spinal canal. Opposite to the ulceration in the intervertebral cartilage, the dura mater and other membranes of the chord were much thickened, and adherent to each other, as well as to the bones and spinal chord in the neighbourhood. The dura mater, for some distance, was covered by recent soft fibrin; opposite to the bodies of the fourth and fifth cervical vertebræ the spinal cord was soft, and almost diffluent; and a similar condition of its structure prevailed in the lower part of the dorsal region. Within the cranium the dura mater was found in parts to be adherent to the bone, and the arachnoid was also thickened and opaque, and much limpid fluid was effused beneath it. The cerebral substance itself was somewhat soft. In the thorax, recent fibrin was found in the pleural cavities, and the lower portions of the lungs were hepatized. The heart and abdominal viscera were healthy.

OVARIAN TUMOUR.

Dr. Tanner exhibited a large ovarian tumour, taken from a patient aged 45, married, and the mother of three children, who

died, in the Hospital for Women, of malignant disease in the right ovary, of less than two years' duration. The tumour consisted of a large thick-walled cyst, capable of holding thirty-five pints of fluid. At the lower part of the cyst, and within its walls, was a solid mass, somewhat larger than the fœtal head at the termination of pregnancy. This mass, on being cut into, presented all the appearances of medullary cancer, and microscopic examination showed this to be its true character. The disease had been suspected, during life, to be of a malignant nature; and, as it was also believed that there were adhesions between the cyst and the peritoneum, no attempts were made to extirpate the mass. The left ovary was healthy.

UTERINE POLYPUS.

Dr. Tanner also exhibited a large uterine polypus. It measured 9 inches in length, 14½ in circumference at its thickest part, and weighed 2½ lbs. As far as could be ascertained from the history of the symptoms, it had existed more than two years.

MEDULLARY CANCER OF THE FEMUR.

Mr. Henry exhibited the lower third of the femur and knee-joint of a man whose thigh had been amputated at the Middlesex Hospital, on the 31st of March, by Mr. Moore, for medullary cancer affecting those parts. It appeared that, eight months before, the patient, who was a labourer, aged 30, was taken into Egham Workhouse for a fall on the left knee, which had been growing gradually weak for some time. It was supposed that the lower end of the femur had been fractured; the limb was accordingly placed in splints. Swelling of the lower third of the thigh, unaccompanied with pain, immediately commenced. This did not subside, and the patient was at length discharged from the infirmary, not at all better than when he entered it. Finding that the swelling gradually increased, and began to get painful, and being, moreover, unable to use his limb, he entered the Middlesex Hospital March 15, 1853. At that time the left knee-joint was enlarged in every direction, although the swelling was most conspicuous on the inner side, where it projected in the form of a tumour, and reached up as high as the superior boundary of the patella. The surface in this situation was firm, and conveyed a crackling sensation to the finger; elsewhere the tumour was uniformly soft and doughy. Two days prior to the operation, an evident circumscribed pulsation manifested itself in the prominent part of the swelling, although none could be distinguished before that period. A large quantity of the morbid formation was accumulated in the popliteal space. The patella was fixed, the lateral motions of the joint were free, but flexion and extension were limited. The patient did not complain of pain, and, indeed, had suffered very little during the progress of the case. The glands of the groin were slightly enlarged, but, being soft, and apparently natural in their texture, there seemed no reason to consider that they were implicated in the disease. The patient was emaciated, had a sallow, cachectic aspect, and a rapid pulse. On examining the limb after its removal, it was found that the lower end of the femur, especially the condyloid portion, had been expanded into a thin shell around the proper substance of the tumour. The cancellous structure had been absorbed. The left condyle was by far the most affected; and it seemed evident that the disease had commenced there. The tibia was unaffected with cancer. The morbid material which had infiltrated itself among the muscles and soft tissues in the vicinity of the joint was an example of the ordinary medullary cancer, being more vascular in some parts than others, and having acquired increased firmness in the centre. The femur, above the seat of disease, was thickened, and the medullary canal narrowed. The periosteum showed signs of chronic inflammation. The osseous structure of the tibia, though unaffected with cancerous infiltration, exhibited that ecchymosed state of its compact tissue which has been noticed by Mr. Stanley as present in some instances of medullary cancer of the bones. Mr. Henry conceived, that the absence of pain during the progress of the disease, the sudden development of pulsation in one part of the tumour,—owing, without doubt, to the rapid increase in the size of the blood-vessels,—and the complete absorption of the cancellous structure of the femur, constituted features of considerable interest in the case.

PERFORATION OF THE STOMACH.

Dr. Ogier Ward exhibited the stomach of a woman, aged 46, who died nineteen hours after perforation of that organ had taken place. She had suffered for a long time from indigestion and pain in the stomach, and was engaged in her domestic duties, when she was suddenly seized with violent pain in the epigastric region, followed by sickness and great prostration. She rejected everything that was given her, and died in nineteen hours. At the *post-mortem*, fifty-two hours after death, the peritoneum was found universally inflamed, and about half a gallon of a reddish, turbid fluid, holding flakes of lymph, was contained in its cavity. The intestinal coils were glued together, and, in the pelvic cavity, a quantity of thick, yellow, puriform fluid was observed. There was a slight aperture in the front wall of the stomach, nearer to the pyloric than the cardiac end, just below the lesser curvature, where the organ is overlapped by the left lobe of the liver. This opening was one-third of an inch in width by one inch in length externally, but, when seen from within, it presented an oval outline, and sharp, defined edges. The mucous membrane, at the pyloric extremity, was thinned and wrinkled by the cicatrices of old, superficial ulcers; and at this spot the pancreas was connected by firm adhesions with the outer surface of the stomach.

MEDICAL SOCIETY OF LONDON.

Dr. Forbes Winslow, President, in the Chair.

TREATMENT OF ANEURISM BY INJECTING A SOLUTION OF THE PERCHLORIDE OF IRON INTO THE SAC.

At a recent meeting of the London Medical Society, Mr. Gay read the following account of a case lately communicated to the Societè de Chirurgie by Baron Larrey, and sent to Mr. Gay by Dr. Costello, the able author of the "Cyclopædia of Surgery." In the month of January, Dr. Pravaz, of Lyons, made known to the Academiè des Sciences a new mode of effecting the coagulation of blood by mixing with it a concentrated solution of the perchloride of iron, and at the same time suggested the employment of this agent for the cure of aneurism, by injecting it into the sac. M. Delonchamps, an army surgeon, at Lyons, accordingly made trial of it, and with the happiest results, as the following narrative will show:—A blacksmith, of Le Mans, aged 26, met with a blow over the left eyebrow; this was followed by an aneurism of the supra-orbital branch of the ophthalmic artery, which gradually reached the size of a pigeon's egg. Pressure on the tumour, by means of a pad and spring, was kept up for twenty-five days and nights, but without any benefit; and as the patient refused the treatment by electro-puncture, and other remedies did not appear to be very suitable to the case, M. Delonchamps determined on injecting the solution of the perchloride of iron. On the 4th of February, an oblique puncture was made through the walls of the sac, and the vessel being compressed above and below the aneurismal sac, a few drops of the concentrated solution were injected into it by means of a small glass syringe, with a fine and pointed nozzle. A few drops of blood followed the withdrawal of the instrument, but without jet. A few more drops of the solution were then injected, and it became at once evident that it had produced the desired effect, for in that portion of the sac into which the syringe had been introduced, the blood became rapidly firm, and pulsation ceased; in the remaining portion of the sac, however, no change whatever took place. This was owing to the fact, that a firm plug of coagulum had formed in the orifice of the syringe during the operation, which strong pressure on the piston could not dislodge, and had prevented the escape of a quantity of the solution sufficient to coagulate the whole of the blood within the sac. The patient suffered no pain from the operation, nor did he desist from his usual work. On the 6th February, the success having been only partial, ten or twelve drops more of the solution were injected; but, in order to prevent the formation of a plug within the syringe, as before, it was smeared with grease prior to its being used. A sharp, burning pain followed, and the fluid contents of the tumour could be felt to be undergoing the process of solidification. Not a drop of blood escaped this time on the withdrawal of the syringe, and pulsation entirely ceased. On the 7th, the patient suffered much pain, and could not sleep; the tumour also had acquired double its previous size, and felt hot and throbbing. This arose from inflammatory engorgement, which readily yielded to cold lotions, etc., so that the patient was able to resume his work again on the 8th. A slight oozing of pus through the puncture took place, and continued for seven or eight days. The tumour, after this, gradually lessened in size, and, by the 15th of March, the cure was so far advanced, that its situation could scarcely be recognised. Mr. Gay expressed his opinion, that the treatment above pursued was deserving of every attention from the Profession. It would, however, at first, be desirable to confine its application to cases of smaller aneurism. The affinity of the perchloride of iron for the fibrin of the blood is so strong, that coagulation commences as soon as they come into mutual contact, and the clot is so firm, that no fear need be entertained of any portion of it being washed away by the circulating current. The foregoing, and other experiments that have been made, show that this agent is the most valuable styptic we possess.

Dr. Winn exhibited a dissection of a portion of the uterus and placenta, which he had removed from the body of a woman who had died undelivered at the close of the last month of gestation. For the very rare opportunity of making the dissection, Dr. Winn expressed his obligations to Mr. Edward Snell. Dr. Winn, with the aid of Dr. Gull, (for whose valuable assistance he felt greatly indebted,) had made a careful microscopic examination of the tissues, which went far to establish the correctness of the views of Goodsir and other modern observers, and, to a great extent, the theory of the immortal Hunter, with regard to the placental circulation. Under a power magnifying 270 times, the following facts were clearly manifested:—1st. That the falciform duplicatures of the membranes of the uterine sinuses contained, not only parallel, but transverse muscular striæ, indicating a high degree of contractile energy. As these bodies are situated at the opening of the sinuses, they must exert a powerful influence in arresting the flow of blood when the placenta is separated from the uterus, 2nd. That many of the delicate filaments which are seen passing from the placenta to the uterus, when these bodies are gently separated, are composed of looped capillaries, enclosed in a fine nucleated membrane. This membrane is probably a continuation of the chorion. These loops form, as it were, villi, which project, but do not open into the sinuses, and they correspond exactly with the description given of them by Goodsir. 3rd. That the tissue of the placenta contained numerous oil globules, showing that the organ had fulfilled its destiny, was, in fact, effete, and about to be thrown off in the same manner as a ripe seed-vessel is separated from the parent plant. Dr. Winn, in conclusion, stated, that the placental circulation was a difficult question, and had given rise to a variety of conflicting opinions; he, however, considered that modern research had established many facts, and that it could now be safely inferred, that the maternal blood entered the placental cells by the curling arteries of the uterus, and that, into these cells, the placental tufts projected. From the cells the blood is returned by the uterine veins, without having left the maternal vessels. The fœtal tufts are, therefore, merely bathed in the blood of the sinuses, and the blood of the fœtus is purified by a sort of action similar to that which takes place in the branchiæ of fishes.

Mr. B. W. Richardson read a paper on

THE ANÆSTHETIC PROPERTIES OF THE LYCOPERDON PROTEUS—COMMON PUFF BALL.

The author's attention had been directed to the fact, that the smoke of the common puff ball was used in the country for stupefying bees, and the idea struck him, that it would be worth while to ascertain if the same agent would produce narcotism in higher classes of animals. Several weeks since, he commenced a series of experiments with the fumes of the fungus, and had continued them to the present time. He found it possible to produce the most perfect anæsthesia with the fumes. His experiments had been made on dogs, cats, and rabbits, and had been witnessed by Drs. Willis, Crisp, Cormack, Snow, and several others. He had administered the narcotic fumes in the impure state, and in a clarified state obtained by passing them through a solution of caustic potass. When an animal was exposed to a large quantity of the narcotic vapour, the narcotism came on very speedily, and the insensibility was most decided, but recovery soon took place. Dr. Willis and Mr. Richardson had removed a large tumour from the abdomen of a dog that had been placed under the influence of the narcotic. No sign of pain was shown during the operation, and the animal did well afterwards. The fumes were obtained by burning the fungus. When a moderate quantity was inhaled slowly, the narcotism came on and passed off slowly, the animal exhibiting all the symptoms of intoxication, with convulsions, and sometimes vomiting. Several animals had been intentionally destroyed by the narcotic. It destroyed life slowly; a dog would often inhale the fumes for twenty minutes or half an hour after being completely narcotised, previous to expiring. The heart's beat in all cases survived the respirations. The lungs after death were pale; there was no sign of congestion in any organ; the blood retained its red colour, but did not coagulate quickly; cadaveric rigidity set in in two or three hours. During recovery from a protracted narcotism, an animal would sometimes be quite conscious, but insensible to pain. Mr. Richardson had himself inhaled the clarified fumes of the fungus; they produced in him symptoms of intoxication and drowsiness, but he did not breathe them long enough to become completely narcotised. Mr. Richardson was able to afford but little information as to the nature of the narcotic agent contained in the fumes. Many of the fungi possessed narcotic properties, and had been supposed to possess an alkaloid resembling morphia; but the subject had never been thoroughly investigated. He should only say, concerning the narcotic principle contained in the puff-ball,—1st. That it was of a most volatile nature; 2ndly. That it was not absorbed by alcohol, water, or strong alkaline solution; 3rdly. That if the fungus was burned in oxygen gas, the narcotic principle still remained in the fumes, and produced its effect, if free oxygen was breathed with it. The fungus had been given internally to two animals without effect. In Italy, it was fried and eaten as food. In conclusion, Mr. Richardson said, that he had been anxious only to show that a volatile narcotic principle, capable of causing anæsthesia by inhalation, did exist in one of the fungi; it remained to be seen whether other fungi possessed a similar principle, and whether from a fungus an anæsthetic could be obtained that might be used in practice, with as little trouble to the operator and with less danger to the patient than ether or chloroform.

The President asked, if Dr. Snow had any remarks to make.

Dr. Snow corroborated Mr. Richardson's observations, having witnessed several of his experiments. There could be no doubt that the fungus did possess a very volatile narcotic principle, capable of causing insensibility to pain. As yet, however, the narcotic was not so practicable as chloroform. The subject deserved and required further research.

Mr. Bullock read a paper on

PURULENT INFECTION.

He divided the subject into three parts; the first, including secondary affections, not followed by fatal results; the second, those followed by fatal results; and the third, the pathology and treatment. The first part was subdivided into two—viz., secondary affections following certain diseases, and those following operations. The principal following diseases were the milder cases of puerperal fever and gonorrhœal rheumatism. The following case was related in illustration:—A man, aged thirty, had been the subject of gonorrhœal discharge for some months, when he was seized with pain in his right elbow and left wrist; ulceration of the cartilages subsequently took place; in six months he recovered with partial anchylosis of the joints, and was then free from discharge. Here was a case of joint affection, of a severe kind, following a purulent discharge from the urethra; here apparently there was no inflammation of veins; here was no introduction of pus into veins; and yet it bore a strong analogy to cases where one or other was supposed to have been the case. What, then, was to be the explanation of the secondary inflammation in this case. It could not have been merely a coincidence, for gonorrhœal rheumatism was no very uncommon occurrence, and this appeared but an aggravated form of it. He (Mr. Bullock) had been told by Mr. Lane, that he had often seen an attack of rheumatism follow a collection of matter in a part which the patient had refused to have evacuated; and he had himself often noticed the patients suffering from phagedænic and sloughing sores had suffered severe pain in their joints. He would endeavour to explain the pathology in this way: that there were certain changes going on in the mucous membrane of the urethra, resulting in the secretion of pus. From some cause or other, this process of secretion was interfered with; the fibrin, which was about to be formed into pus globules, underwent a retrograde metamorphosis, and was carried on in the circulation, and consequently caused like actions to go on in the accompanying fluid. This resulted in an effort to get rid of the morbid and contaminating material which was endeavoured to be done by some secreting organ, which, either from its structure or function, or some other cause, was predisposed to take on morbid action. Among secondary affections following operations, and not fatal in their results, might be mentioned ulceration of the cartilages of joints, chorea, serous effusions, syncope, vomiting, and rigors. In illustration, the following cases were read:—A man, aged 46, the subject of a severe stricture of twelve years' duration, had No. 2 gum-elastic catheter passed and retained twenty-four hours, which was followed by ulceration of the cartilages of the shoulder-joint, and the formation of abscesses in its neighbourhood. A girl, aged 9, was operated on for necrosis of the tibia. The operation was followed by phagedæna of the wound and chorea. A man, aged 42, had Holt's dilator used for stricture of the urethra. It was followed by shivering and effusion into the sheaths of the tendons on the dorsum of his hand. The first and last of these three were cases of synovial inflammation following the introduction of instruments along the urethra into the bladder. Here, as in the former cases, was inflammation set up in a distant part, of the same character, after injury to the urethra, where there was a secretion of pus; here the same explanation as before might be given, the constitutional symptoms and long continuance of the affections clearly showing that there was a blood-poison operating and keeping up the action. The other was a case of extreme interest,—viz., chorea co-existing with phagedænic ulceration of an incised wound; in this case the amount of morbid material was probably small, and exerted its influence on the

nervous system, and was finally eliminated by the natural emunctories of the body. Of secondary affections followed by fatal results might be mentioned,—puerperal fever, purulent depositions in various parts, pericarditis, pleurisy, peritonitis, etc.; and, in all the cases the author had seen, there was a marked rapidity of supervention of fatal symptoms, and from the first but small hope of recovery. How great, then, would be the boon, could some conclusion be arrived at as to the *modus operandi* of the exciting cause of this disease. The following cases were then related:—A man, aged 69, had the operation of lithotrity performed; the second crushing was followed by purulent deposit in both knee-joints, and death on the fourth day. The *post-mortem* examination showed coagula in, and a slight thickening of, the prostatic plexus of veins; the iliac veins stained, and the venous system generally gorged with blood; ulceration of the cartilages of both knee-joints, and injection of the synovial membrane of both hips.—A man, aged 38, was operated on for stone by lithotomy. On the seventh day, he had secondary hæmorrhage from a large vessel which had been wounded and tied during the operation; this was followed by inflammation of the right arm, great constitutional disturbance, and death on the fourth day from the occurrence of the hæmorrhage. At the *post-mortem* examination, the cellular tissue from the wound to behind the rectum was found infiltrated with pus, and a circumscribed abscess in the levator ani muscle; the cellular tissue of the right arm and fore-arm saturated with sero-purulent fluid.—A man, aged 34, had the operation of perinæal section performed for stricture of the urethra; it was followed, on the next day, by rigors, and subsequently by pericarditis and pleurisy, and death on the tenth day. *Post-mortem* examination showed recent pleurisy, adherent pericardium, purulent deposit in the lungs, and deposits under the capsules of the kidneys; sub-arachnoid effusion, small coagula in, and slight thickening of, the prostatic veins, the remainder healthy. A woman, aged forty-two, was operated on for ruptured perinæum. She had sloughing of the wounds, and died of pleurisy and peritonitis. The uterus was found enlarged and inflamed, and pus oozed from the Fallopian tubes; there was recent peritonitis and pleurisy. Large quantities of opium were given in this case after the operation. A boy, aged sixteen, had chorea follow an opening made in the urethra through the perinæum, of which he died. The autopsy revealed an abscess between the rectum and bladder, and another behind the pubes, and exposed bone and fibrinous vegetations on the mitral valve. A boy, aged twelve, was seized, four days after a blow on his left leg, with pericarditis, pleurisy, and pneumonia, and died in less than forty-eight hours. The *post-mortem* examination showed purulent deposits in the right lung; in the substance of the left ventricle of the heart and in the kidneys recent pleurisy and pericarditis; pus under the periosteum of the tibia and femur. A woman, aged forty-six, had an abscess in the palm of her right hand, following a wound with a rusty nail. It was opened, but matter subsequently formed at the back of the hand; this was let out by incision, but the patient died of secondary deposits in her knees. No inflamed veins were detected. The last set of cases were interesting from the variety of causes producing the affection, and the number of different parts affected with purulent deposition; their inamenability to any kind of treatment. There was also to be noticed the small amount of pain felt by the patient, even when an important organ was affected. Could it be the extreme rapidity with which the vessels are relieved by secretion, thereby lessening the amount of distension of parts, and consequent pressure on nerves.

Pathology and Treatment.—By nearly all writers on the subject, Mr. Bullock said, that the greatest prominence had been given to phlebitis, which had been unhesitatingly given as the primary cause of the affection; more difference of opinion had existed as to the mode in which the purulent depositions in various parts take place. Mr. H. Lee had been the first to throw any doubt on the importance of phlebitis as the primary cause of the disease, but rather considered it (the phlebitis) to be caused by the irritation of morbid material introduced into the veins. It appeared to the author, that, taking into consideration that there are cases of undoubted "purulent infection," in which there is little or no evidence of inflamed veins, we must look further for the cause of this disease, though it must be acknowledged, that phlebitis was a very frequent accompaniment of it, and was caused by it; and, moreover, he thought, there was no doubt that the poisonous matter which lights up the disease circulated in the veins, and consequently might be an exciting cause of inflammation, but that inflammation of the veins might be only a portion of the general inflammation existing in the part first affected, it being propagated along them to a distance by their continuity of structure. He took the same view of this disease as of typhus, or cholera, or any other disease of that kind: that, as these were the result of a poisonous matter circulating in the blood, so was this. He was supported in this by the fact, that puerperal fever acts very often quite in the same way as any other epidemic disease, and that it (purulent infection) was most prevalent in hospitals and places where large collections of people were. He considered, that the fibrin which was about to form pus in a wound, or other part, from some cause, either atmospheric or local, did not do so, but was carried on in the circulation, and underwent a retrograde metamorphosis; that, on reaching some secreting organ, there was a tendency to throw off the morbid material; the unhealthy fibrin then took on a progressive metamorphosis, and underwent that degree of development it was about to do originally, and so formed pus; that in the case of joints it was shown by Dr. Alderson, in his Lumleian lectures for 1853, that the structure and distribution of the bloodvessels were peculiar, there being a firm and unyielding tissue, which, when the bloodvessels, excited by morbid material circulating in them, became distended, a certain degree of stagnation took place; then was the time for changes to take place, there being already a tendency to form pus; it was done there. In proof of the theory, the small quantity of pus introduced into the veins, and the extent and magnitude of the symptoms produced, were to be looked at; that there must be some process of development going on in order that the morbid material might be distributed all over the vast area of the circulation. The treatment then must be directed to interrupt and destroy the process of morbid development which was taking place, and to check undue action in those parts in which it had unhappily taken place, and to evacuate pus, if possible, as soon as formed.

A discussion ensued, in which several members took part.

DISCOLORATION OF THE HAIR.

Dr. Crisp showed the portrait of a girl who was exhibited at the Society in February, 1852. After ring-worm, snow-white patches of hair, as large as the palms of the child's hands, appeared upon the scalp. At the present time the head presents a parti-coloured appearance, the white hair being gradually replaced by that of a natural colour. The bulbs of the white hairs, when examined under the microscope, are shrivelled and pointed, the pigmentary matter being absent. It is questionable whether any mode of treatment has been serviceable in this case.

SUDDEN DEATH FROM PLUGGING OF THE PULMONARY VEINS IN A PREGNANT LADY.

By EDWARD SMITH, M.D., LL.B., Secretary.

On Sunday evening, April 24, I was urgently summoned to see a lady who was reported to be delirious. On arriving at the house, I found that she was dead, and had been so fully twenty minutes. She was a patient of Mr. Bartlett and Dr. Jackson, of Notting-hill, and was altogether unknown to me. I found that she was about 20 years of age, a little above the middle size, well developed, and in good condition, and within a few days of the term of utero-gestation of a second child. She had been perfectly well until within ten minutes of her death, except that she had complained of some pain and tenderness on the inner side of the left thigh, and, to relieve this, had been directed to lie in a recumbent position. She had eaten a very hearty dinner at three p.m., and tea at six p.m., and was full of spirits throughout the day, and up to nearly eight p.m. She had worn the stays used by pregnant ladies, even when lying upon the bed, contrary to the directions of her medical adviser; and it is probable that they were well laced. The child was known to be alive on Saturday evening, but nothing could be learned as to its vitality on Sunday. While lying upon the bed, dressed, and with her stays on, and in excellent spirits, she suddenly uttered a shriek, and flung her arms about wildly, and cried, "Oh, my head! I cannot breathe! I am going mad!" and also, "Give me my breath!" This continued for about five minutes, during which time her hand was placed upon her chest; and then she became calm for a moment, and said to her husband, "There, Charles, I am better," and expired. The face was deeply livid, and the body bent, so that the chin approached her knees. When I saw her, the face was blanched, and she lay stretched on the bed. Having learned several of these particulars within a few minutes after my arrival, I became anxious as to the propriety of performing the Cæsarian section, to save the child; but, since so long a period had already elapsed after the death of the mother, since I had neither stethoscope nor scalpel with me, having been summoned from church; since, moreover, I knew nothing of the case previously, and could not fully persuade the husband and friends of the reality of their loss, I determined not to perform it. By the kindness of Mr. Bartlett, I had the opportunity of assisting Dr. Jackson and himself at the *post-mortem* examination, forty hours after death, and of making the requisite microscopic investigation

of the tissues. The features had lost somewhat of their pallor, and a fluid, very slightly sanious, was exuding from the mouth and nostrils. The under part of the body, as it lay on the table, was not only greatly congested, but presented many well-marked, purplish-black petechiæ. The left leg was not swollen or inflamed. The blood was black and fluid universally, except in the pulmonary veins, where the whole tube was filled by a cylinder of coagulum, having a central clot of blood, enclosed by two layers of condensed fibrin, the outer one of which was colourless, and the whole so firm in texture, that it could be handled and pressed with impunity. It was not strongly adherent to the lining membrane of the vein. The number of white corpuscles was considerably beyond the normal standard. The heart was flaccid, and rather enlarged on the right side. The tissue was undergoing the process of granular degeneration, or the first step of the process of fatty degeneration, and more particularly on the right side. The left side was empty —without coagula, even. The right ventricle contained, and the right auricle was distended with, fluid, black blood. The valves were healthy. The arteries were preternaturally small, so much so that the aorta at its bifurcation could not admit the end of a small little finger, and the capacity of the external iliac was not greater than that of a swan's quill. Neither blood nor coagula were found within any of them, nor were any of them ruptured. The veins were immensely and universally distended, and appeared to be as much larger as the arteries were smaller than the natural size. The inferior cava was fully an inch and a quarter in diameter. The most remarkable enlargement, however, was in the ovarian veins; but whether this enlargement was greater than is usual at the full term of utero-gestation, before labour has commenced, I cannot tell. They were about twelve inches in length, by three-quarters of an inch in breadth, and passed in a curved direction from the ovarian plexus in the broad ligaments, along the iliac fossæ, to the front of the vena cava on the right, and to the renal vein on the left side. The left was the larger of the two. The right one had thinner coats, so that the dark blood within it was more evident, and terminated by an opening so constricted, that a crow-quill could scarcely be introduced into the vessel from the vena cava. There was a bulging of the vessel directly on the side of the vena cava, viz., close to the constricted opening into the cava; and the trunk of both vessels was of even diameter throughout. A careful examination showed that the inner coat of these veins had not given way. The stomach and intestines were enormously distended with flatus, and contained fæcal and partially-digested matter. There was no odour of hydrocyanic acid. The uterus was normally developed and entire, but its parietes were flaccid. The placenta was very readily detached, and was bloodless, and had not undergone the degenerative process. The membranes were unbroken, and the os uteri perfectly closed. The child (a male) was somewhat small, and the cuticle peeled from the subjacent parts on very slight pressure; but there were no other signs of commencing decomposition. The ovaries were healthy. The diaphragm was pushed upwards to the level of the fourth or fifth rib, thus greatly diminishing the capacity of the thorax. The lungs were much collapsed, and crepitus on pressure was but slight. Numerous bubbles of extravasated air were scattered over the surface, directly under the visceral layer of the pleura, and more particularly on the left lung, towards the base. The discoloration on the posterior and inferior aspects was much greater than is usually met with as a *post-mortem* occurrence. The tissue was somewhat readily broken up on pressure, but no rupture of the structure was evident. It contained very many granular corpuscles; but, since the blood was fluid, with no appearance of pus, and contained, in other parts, an unusual quantity of white corpuscles, it is probable that these cells were not exudation cells, but the white corpuscles of the blood. The pleural cavity, on the left side, contained about three ounces of a deeply tinged sanious fluid, without coagula. On the right side, the quantity was smaller, and the fluid less discoloured. The sinuses and larger veins of the brain were very turgid. The substance of the brain was of normal consistence, and had not been lacerated; it was slightly congested. There were no effusions at the base, or in the ventricles of the brain, neither any remarkable congestion of the choroid plexus. The tissues throughout the body indicated a somewhat unusual degree of flaccidity. On a review of the symptoms and *post-mortem* signs, the following thoughts naturally occur to the mind:—The mode by which death supervened was that of suffocation. The general flaccidity of the tissues, with the degenerative process proceeding in the centre of the circulating system, and the presence of an increased quantity of white corpuscles in the blood, indicate an atonic condition of system, one especially liable to take on deranged nervous action, and likely to succumb under the influence of a violent shock. May the enlargement of the veins be in any degree attributed to the diminished size of the arteries? The venous congestion was probably of some duration, and accompanied or caused by the absence of the accustomed degree of bodily exercise, the horizontal position in which she had of late indulged, the large size of the veins, the condition of the blood, the pressure of the gravid uterus, and the lacing of the stays. This congestion would be greatly increased, probably, by the two hearty meals which had been taken within the four and a-half hours preceding the death, and the enormous distension of the intestinal canal. The extravasation of air under the pleura, the injection of the parenchyma of the lung with fluid venous blood, and the petechiæ on the skin, would be due to the violent death-struggles. The effusion of bloody fluid into the pleural cavity would arise from the last-mentioned cause, added to those of the fluidity of the blood and the congestion of the lungs. The cause of the fluidity of the blood is not very evident; but it may be owing to a combination of three attendant circumstances, viz., the condition of the blood, the rapidity of the process of dying, and the suffocation. The special exception to the fluidity of the blood observed in the plugging up of the pulmonary veins by coagula, accompanied by great distension of the venous system, and the venous side of the heart, and the emptiness of the arterial system and left side of the heart, cannot but attract attention. I am fully impressed with the inherent difficulty attending the solution of the problem, as to how far the formation of such coagula may be simply an attendant occurrence of the act of dying, or how far the coagula should be regarded as giving rise to those symptoms which indicate approaching death; that is to say, whether they be really a cause or an attendant of the act of dying. Since coagula are so frequently found as dying or *post-mortem* occurrences, we cannot but regard with suspicion any opinion favouring the supposition, that, under any circumstances, they are true causes of death. Without being dogmatical, however, I am inclined to think that the special exception formed by them in this case, the fact that the clot had time to form two envelopes of condensed fibrin, the outer one of which was quite free from the presence of red corpuscles, in a death so sudden and rapid, would almost suffice to induce us to regard them as a cause, and not an attendant occurrence of the death. The greatly diminished capacity of the chest, induced somewhat suddenly, perhaps, by the distension of the stomach and intestines, would impede the action of the lungs, and, by lessening the quantity of inspired air, cause a retardation of the sanguineous current, and thus tend to the formation of the coagula. If this view be a correct one, we may readily account for the sudden origin of violent and fatal symptoms. Without such an explanation, while I can see abundant cause for death, I cannot find the occurrence which gave rise to the fatal symptoms at a distance of two hours from the last meal, and not an hour and a half earlier. I bring this rare and instructive case before the Society with the further object of eliciting the opinions of the Fellows as to the utmost period at which a surgeon would be justified and required to perform the Cæsarian section after the death of the mother, assuming that he was provided with the requisite appliances, and had the full concurrence of the friends of the deceased.

MEDICAL REFORM.

On Friday, a Deputation from the London Medical Reform Committee, consisting of Dr. Lankester, Dr. Mackenzie, Dr. Dalston Jones, Mr. Lord, Mr. Wall, Dr. T. G. Traquair, Mr. Woollaston, Mr. W. M. Powell, Dr. Murphy, Dr. O'Connor, Dr. Ogier Ward, Mr. Reginald Read, Mr. Charles Clarke, and many other members of the Medical Profession, waited upon Lord Palmerston, at the Home Office, to request His Lordship to promote the passing into law of the proposed Bill for the better regulation of the Medical Profession, prepared by the Provincial Medical and Surgical Association.

The Deputation was headed by Dr. Lankester, who stated the reasons of the Committee for adopting this step. He had been Chairman of a Committee established some time ago for the purpose of advancing Mr. Wakley's Medical Registration Bill; and, finding that the opposition which was given to the principles of that Bill by the College of Physicians and the National Institute no longer existed, and that the Provincial Medical and Surgical Association had drawn up a measure of a similar character, and involving all the great principles of the Registration Bill, he determined to call the present Committee together, or to reconstitute the old one. They proceeded to ascertain the feelings of the Profession upon the subject, and they found that a very large number were in favour of the Bill, the great bulk of the Profession in Edinburgh and Dublin, and the various medical corporations of those cities, being desirous that it should pass into a law. The Committee was therefore most anxious to know whether the Go-

vernment were prepared to support the measure, and, if so, whether there was any prospect of its being brought forward during the present session. Dr. Laukester then laid the following facts before His Lordship. There are twenty-three sources in the United Kingdom from whence medical degrees, licences, and diplomas may be obtained; the evils of the system being, that many of the bodies having the power of giving competent examination, did not give a licence to practise, or that they granted a licence to practise in one part of the kingdom and not in another, rendering it necessary for the practitioners of medicine to submit to the oppressive annoyance of re-examination, and perhaps the degradation of rejection. Moreover, the licences of many of those bodies did not protect the public. Persons practised all parts of their Profession with the licences of the Apothecaries Society, the College of Surgeons, and the College of Physicians of London alone; yet the first and third did not examine in surgery, and the second did not examine in medicine, and the third did not examine in midwifery. The majority of these bodies were self-elected and irresponsible; and the consequence was, that they laid themselves open to the charge of jobbery and corruption, while some of their diplomas and licences gave no power to recover debts in a court of law. They had no organised system of registration, and practitioners qualified to practise were not distinguishable by any easily available means from those who were not qualified. It was now contended, that remedies for this condition of the Profession were suggested by the Bill in question, which proposed:—1st. To repeal all legal powers at present possessed by medical bodies which interfere with the right of the educated practitioner to exercise his Profession. 2ndly. To require on the part of the State a uniform standard of education for all who enter the Medical Profession, whatever branch of it they may subsequently choose to practise. 3rdly. To give to every one thus educated and examined, the right to practise any or every branch of his Profession in all parts of the United Kingdom. 4thly. To provide a system of registration by which every qualified practitioner could be immediately recognised, and to attach penalties to all persons practising medicine without the necessary qualifications.

Dr. O'Connor, Dr. Murphy, Dr. Ogier Ward, and Mr. Lord, severally addressed His Lordship, the last-mentioned gentleman observing, that the great body of the Medical Profession felt so strongly that some reform was necessary, that they were willing to waive all minor differences in favour of some large and comprehensive scheme of improvement; and he (Mr. Lord) respectfully hoped that His Lordship would view this question, not diplomatically, but promptly and sincerely, as by so doing he would confer an important benefit, not only upon the Medical Profession, but upon the public in general.

Lord Palmerston said, he had understood from some quarters that perfect unanimity existed in the Profession, and from others that there were many objections to the present system. It was therefore evident that the question was one of a complicated nature; and the details were new to him. The question, however, should receive his attentive consideration; and he should be glad to be favoured with a copy of the Bill to assist him, as the subject was doubtless one of an important and pressing nature.

The Deputation then retired.

THE MEDICAL CHARITIES ACT.

MEETING OF THE MEDICAL PROFESSION OF IRELAND.

In compliance with the wishes of above 300 Medical Officers of Dispensaries, a general meeting of the members of the Medical Profession in Ireland was held, on Tuesday, at the Royal College of Surgeons, Dublin. Among the subjects which the meeting was called to consider, were the working of the Medical Charities Act, the insufficiency, in very many instances, of the present medical salaries; the transfer, either wholly or in part, of medical salaries from the Poor's-rate to the Consolidated Fund; the establishment of district hospitals, and the re-organisation of the Medical Association of Ireland. The meeting was most numerously attended by Practitioners from all parts of the country. Among those present were: Dr. Benson, Dr. Beatty, Surgeon Ellis, Dr. Neligan, Dr. Ledwich, Dr. M'Namara, Dr. Williams, Dr. Murphy, Dr. William Temple (Monaghan), Dr. George Brassington, Dr. Waters, Dr. Walsh (Clara), Dr. Morrison (Newry), Dr. Patterson (Rathkeale), Dr. Faussett (Clontarf), Dr. Ffolliott, Dr. Macaldine (Coleraine), Dr. Mayberry (Killarney), Dr. Pratt (Woodlawn), Dr. Hope, Dr. Hynes (Kinvara), Dr. Murphy (Limerick), Dr. Purefoy (Cloghjordan), Dr. Stoney (Borrisokane), Dr. H. J. Smith (Mountrath), Dr. Leeper (Loughgall), Dr. Russell (Enniskerry), Dr. Burke, Dr. Quinan, Dr. Murphy (Castleconnell), Dr. Hetherington (Athlone), Dr. Russell (Thurles), Dr. Fox (Dundrum), Dr. Whistler (Bray), Dr. Bradshaw, Dr. R. M. Forsayeth, etc. etc.

On the motion of Dr. Morrison, seconded by Dr. Hynes, the chair was taken by Dr. Mackesy, of Waterford.

Dr. Waters, Parsonstown, was requested to act as Secretary. Having read the requisition convening the meeting, he said, a large number of communications had been received from various parts of the country, but it was unnecessary to read them, as most of the Medical Associations in Ireland were represented at the meeting. The only exception was that of Belfast, the practitioners of which town were not represented. A letter had been received from thence, containing a Resolution dissenting from the proceedings of the meeting.

Dr. Faussett, Clontarf, moved the adoption of the first Resolution. He said he did not think any of the sentiments contained in the Resolution received from Belfast were at variance with those of the Association with which he had, heretofore, the honour of acting. Nor did he think it stated sufficient grounds to justify their Belfast friends in standing apart from them. (Hear, hear.) They had assembled there to unite cordially for the purpose of promoting their common interests, but they were not disposed to give anything like a factious opposition to the Commissioners administering the Medical Charities Act, to which they were willing to give a fair trial. (Cheers.) They were anxious to co-operate, in every way, with the Commissioners, who had met them in a spirit of great kindness and courtesy, particularly the Medical Commissioners. (Hear, hear.) The grievances which they had to complain of were attributable to the spirit of the Act itself, and they thought that advantageous alterations might be made in the regulations of the Commissioners. (Hear, hear.) His object was, by combining, to endeavour to effect those alterations. (Hear, hear.) The following was the Resolution which had been entrusted to him—

"That the Medical Charities Bill having become law, we would express our anxious wish to co-operate with the Poor-law Commissioners in carrying out the intentions of the Legislature; but as some imperfections exist in its details, it is the obvious duty and interest of the Medical Profession to endeavour to have them amended, in which the assistance of the Poor-law Commissioners is expected."

Dr. Faussett further observed, that the Medical Profession in Ireland, while united, were powerful and influential, but, in consequence of their divisions and dissensions, they had become the very personification of weakness, and proverbial for disagreeing. (Hear, hear.) If they had been despised, and made the sport of circumstances, it was because they were divided—(hear, hear)—but he hoped that all this was to have an end. (Cheers.) He was aware that the Profession had grievous complaints to make of the Medical Charities Act, and the manner in which it was worked. He would ask of them to be patient, and, as the Act was new, to give it a fair trial. Gentlemen had come to that meeting from every part of the country, at great personal inconvenience, and no small expense; and he sincerely hoped their proceedings that day would be characterised by concord and harmony.

Dr. Mayberry, Killarney, seconded the resolution. He said, it was undeniable that there were great defects in the present Act, particularly that part of it relating to the salaries of the Medical attendants. (Hear, hear.) In his opinion, there ought to have been a maximum and a minimum. (Hear, hear.) In some places at present, where the population numbered only about 4000, and where there was an area of only about 25,000 acres, they had a salary of 100*l.* a year; while in other districts, containing from 18,000 to 19,000 persons, and an area of between 50 000 and 60,000 acres, the salary was only 60*l.* a year. (Hear, hear.)

The Resolution was then put, and carried.

Dr. Macswiney moved the adoption of the second Resolution:—

"That the Medical Charities Act has now been sufficiently long in operation to expose fully its many imperfections, and to justify, in the fullest extent, the exertions this day made by the aggrieved members of the Medical Profession in Ireland, holding appointments under the Act, to obtain redress of hardships and wrongs under which they suffer at the hands of the Legislature."

He thought the concluding words of that Resolution put the saddle at once upon the right horse—(hear, hear)—for, whatever deficiencies there were in the present Act, it was the Legislature they had to blame for them; and, if they wanted redress, it was to the Legislature they should look. (Hear, hear.)

Dr. Montgomery, of Ardee, briefly seconded the Resolution, observing, that the Medical Charities Act, like the bed of Procrustes, was not suited to every individual. He thought anything

brought under the notice of the Commissioners by that meeting would receive their best attention. (Cheers.)

The Resolution was then put and carried.

Dr. Murphy, Castleconnell, moved the third Resolution:—

"That, in the administration of the law, the interests of the Medical Profession have not been sufficiently regarded; that salaries are, in a majority of instances, inadequate to the duties required, which we consider must continue to be the case so long as Boards of Guardians have the sole control over them."

As far as the sick poor were concerned, the present was a humane and good Act, for it had given them an opportunity of obtaining the medical attendance of men of first-rate qualifications, who had at their hands every facility and assistance that medicine and surgery could supply. (Hear.) But, when they looked to the other side of the picture, they saw men highly educated treated little better than clerks, by a body of men the majority of whom were incapable of appreciating their services or the respectability of their Profession. (Hear, hear.) He had been appointed seven months since to a Dispensary in the County Limerick, which he was working quietly when the Committee thought proper to impose another medical depôt on him, and his salary was only 60*l.* a-year. He had thus two depôts actually open, but, in a few days, a third would be ready, and he would have to take charge of it. He looked upon this as a very great hardship indeed. (Hear, hear) They had no redress for these acts of injustice; for, if they spoke to the Committee, they said they had no power, and that reference should be made to the Poor-law Commissioners; and, if they were written to, they replied, that the Committee alone had the power to interfere. In this way were the efforts for redress defeated. (Hear, hear.)

Dr. Walsh, Clara, seconded the Resolution, which was put and carried.

Dr. Hynes, Kinvara, moved the next Resolution:—

"That the imposition of the payment of medical salaries on the Poors-rate, in addition to the burdens with which that tax is already oppressed, tends to bring the medical officers of Dispensaries into collision with Boards of Guardians, and thus interrupt the good feeling and unanimity which are so essential to the effective working of this Act. The payment of salaries is, in some instances, most irregular and unsatisfactory; we would therefore urge upon the Legislature the transfer of one-half of the charge from the Poors-rate to the Consolidated Fund, and thus assimilate the law in this country to that in England, where the Poor-rate is neither excessive nor oppressive; and that a memorial on the subject be presented to the Lord Lieutenant."

He said: The Resolution which he had to bring under the notice of the meeting would, if carried out, obviate much of the evils to which Dr. Murphy, in advocating the last Resolution, had adverted. It was one, the subject of which, with the co-operation of their respected Chairman, he had been engaged for the last six or seven months in bringing before the Profession and the Poor-law Guardians of the country. It proposed to transfer the charges for the payment of the salaries of the Medical Officers of Dispensaries from the Poor rate to the Consolidated Fund. (Hear, hear.) The last speaker had put forward many intolerable grievances affecting himself and his colleagues of the Limerick Union, and concerning which grievances gentlemen appeared to have come to the conclusion, "that there could hardly be found worse in Ireland." But when he told them, that his colleague and himself had the good or evil fortune of being the only medical officers in their Union, and that that Union comprised an area of over 100,000 acres, and a population of 26,000 souls, in districts measuring each 20 miles by ten; and when further he informed them, that he was obliged to attend two days in the week in the town he resided in, and one other day seven statute miles further off, and all for the sum of 50*l.* per annum, he thought they would admit that cases of greater hardship exist than even those put forward by his friend Dr. Murphy. And yet the Guardians of his Union are not so much to blame as one would suppose at first sight, simply because they were not in a condition to give adequate salaries to their medical officers. (Hear, hear.) Dr. Hynes proceeded to say, that when the ratepayers of rich England were exempted from the payment of the salaries of the medical officers of their poor, surely the rate-payers of impoverished Ireland should in justice receive the like boon; and that, too, not in the ratio in which the English rate-payers received it, but in a ratio proportionate to the Irish rate-payers' greater poverty. He thought that the Irish rate-payers were entitled to the exemption now, particularly when a large sum was to go from this country by the imposition on it of the Income-tax into the Consolidated Fund; so that it would be only getting back a portion of their own, even if the subject of the resolution should be conceded, which, he sincerely hoped, it would.

Dr. Purefoy, in seconding the resolution, said, he would lay a few facts before them rather than delay them by making a set speech. He was now in the twentieth year of his Dispensary servitude, nineteen years of which he had completed when the present Act came into operation. When appointed, his salary, which during the previous seven years had been 80*l.* a-year, was reduced to 50*l.* a-year. The Commissioners very handsomely remonstrated against this reduction, and the correspondence on the subject occupied three months. When the six months from the time of his election expired, he, of course, expected to be paid even at the rate of 50*l.* a-year; but he was told, that his salary would not be due for three months after. Now, he had been elected in March; but this answer had been given him, because, in consequence of the correspondence that ensued, as to the amount of his salary, the letter of the Commissioners approving of his appointment was not received till May. (Shame! shame!) He should observe, that, at the end of three months, the Commissioners acquiesced. He eventually succeeded in getting paid from the day of election; but, in doing so, he underwent more annoyance and mental suffering than he had experienced during the previous eighteen or nineteen years he was in office. But this was not all. After three applications for payment of a quarter's salary, he was informed, by letter from the clerk, that the Guardians were not in a position to pay, and that, when a cheque was given for the amount, he should hear of it. He was induced to make these statements in the hope, that they would become generally known, and assist in having some of the most glaring defects in the Act amended. He would observe, that his medical brethren had acted upon mistaken views, when they consented to furnish an account of the number of miles they travelled in a given time; thus, in fact, placing themselves on a footing with mechanics and labourers. In doing this, he thought they had, to a certain extent, compromised the respectability of their profession. They should look for increased salaries, solely on the grounds of the respectability of their office and the value of the services they rendered; recollecting the long preliminary education they were obliged to receive, and the great expense and labour they had to undergo before they could be admitted to practice. (Cheers.)

The Secretary then read a Draft of a Memorial to the Lord-Lieutenant, praying His Excellency to use his influence with the Government to have the salaries of the Medical Officers of Dispensaries transferred from the Poors-rate to the Consolidated Fund.

The Resolution and the Memorial were then adopted.

Dr. Morrison, Newry, moved the fifth Resolution:—

"That we desire publicly to express our deep regret that the Medical Charities Bill, as introduced by Sir William Somerville, was curtailed, in its passage through the Legislature, of decidedly its most essential provision, inasmuch as that portion of it which had reference to the establishment of district hospitals, was omitted to be passed into law; and we emphatically wish to record our opinion, that the hospitals which at present exist are totally inadequate, both in point of numbers and situation, to the purposes of general relief; and that, until a sufficient amount and a fair distribution of hospital accommodation be afforded, the objects for which the Medical Charities Bill was sought shall not have been obtained, nor the wants of the sick poor properly responded to."

Dr. Pierce, Newcastle, seconded the Resolution, which was put and carried.

Dr. Johnston, Kilkenny County Infirmary, said, it was his opinion, as an attendant of a County Infirmary, that it was a proof of the greatest possible narrow-mindedness to suppose, that any portion of the Profession could have its position in any way benefited by the depression of another portion. (Hear, hear.) Their interests were identical, and in proportion as one section of the Profession was elevated the others would rise with it. (Hear, hear.) With these views, he had no hesitation in saying, he was favourable to the establishment of district hospitals. (Hear, hear.) It would, to a great extent, be a boon to the poor, but in a much greater degree would it be a boon to the Profession. (Hear, hear.)

Dr. Quinan proposed the sixth Resolution:—

"That it is an obvious and serious defect in the Medical Charities Act, that neither the duties of the Dispensary Medical Officer, nor the circumstances which render individuals fit objects for relief at dispensaries, are set forth with the necessary clearness and precision which these important topics require."

Dr. Bernell seconded the Resolution, which was put and carried.

Dr. Faussett said, he considered the system of cancelling tickets brought to the medical attendants of dispensaries a mere delusion, if such a thing was ever done at all. According to the present arrangements, the medical officer, if a ticket duly signed was presented to him,—no matter if the party presenting was one of the most independent persons in the district,—he had no option but to

attend it; and as to its being cancelled afterwards, he would repeat, that was a mere delusion. (Hear, hear.)

Dr. Ffolliott stated, that, according to the directions of the Commissioners in his district, an artisan earning 30s. a-week was a proper object for relief.

Dr. Darley moved a Resolution with regard to the books which the Dispensary officers were obliged to keep, and which it was advisable should be simplified, as they involved much time and labour.

"That the books and Dispensary Regulations of the Commissioners are complicated and numerous; and that, as they entail a description of labour on the Medical Officer in which he has been hitherto unpractised, and so encroach upon his time, we desire to have them modified."

Dr. Patterson, (Rathkeale,) in the absence of Dr. Kingsley, read the Prospectus of the Irish Medical Association, the chief features of which will be given in our next Number.

The Prospectus was adopted; and, on the Motion of Dr. Patterson, seconded by Dr. Waters, the meeting then resolved itself into the Irish Medical Association.

The following officers were then elected:—President, Dr. Benson; Vice-Presidents, Dr. Kingsley, Dr. Walsh; Treasurer, Dr. Morrison; Honorary Secretary, Dr. Waters; Paid Secretary, Dr. Maunsell. Names and subscriptions of members were then received by the Treasurer.

A Deputation was then appointed, to present, on the following or some early day, the Memorial above alluded to, praying for the transference of medical salaries in part to the Consolidated Fund.

Several other topics of importance were discussed,—such as the payment of medical men for attendance on Bridewells, and the Constabulary; but, as these topics will come more fully under the notice of the Irish Medical Association in its deliberative capacity, we shall then take an opportunity of noticing them.

The second chair having been taken by Dr. Walsh, the marked thanks of the meeting were conveyed to Dr. Mackesy.

MEDICAL NEWS.

Oxford University.—In the Convocation held on Friday last, it was proposed to grant to the Professor of Chemistry, in addition to 71*l.* 10s. voted to the Professor in 1851, the sum of 100*l.* per annum for four years, for the salary of an assistant to teach practical chemistry, the assistant not to receive more than 5*l.* a term from each pupil for instruction in the laboratory. It is understood, that instruction in practical chemistry, in addition to attendance upon general lectures, is essential to any one studying chemistry with a view to an examination for honours.

Royal College of Surgeons.—The following gentlemen having undergone the necessary examinations for the diploma, were admitted Members of the College at the meeting of the Court of Examiners, on the 3rd inst.:—

Bianchi, Robert, London.
Byers, Edward Lodge, Milford Haven.
Crewe, Alfred Godley, Breadsall, Derbyshire.
Hardcastle, Nicholas, Newcastle-on-Tyne.
Jobling, George, Morpeth.
Kelly, Henry Joseph, Frognal-house, Hampstead.
Powell, William, Dudley, Worcestershire.
Sercombe, Edwin, Somers-place, Hyde-park.
Woodall, Samuel, Dudley, Worcestershire.

The following gentlemen were admitted members of the College on the 6th inst.:—

Adkins, Joshua Edward, East Stonehouse, Devon.
Beatty, James, Oldbury, Worcestershire.
Hooper, Charles, Buntingford, Herts.
Martel, Philip Giffard, Guernsey.
Radcliffe, John Netten, Leeds.
Whittle, Alfred, Liverpool.

Licentiates in Midwifery.—The following gentlemen were admitted Licentiates in Midwifery of the Royal College of Surgeons, on the 8th inst.:—

Baylis, John Hutchinson, Lower Kennington-lane; Diploma of Membership dated May 20, 1839.
Cardozo, Samuel, Redruth; May 27, 1853.
Croft, Robt. Chas., Wimbledon; May 30, 1853.
Dempster, Robert, Brighton; April 8, 1853.
Evans, Maurice Griffith, Blaenafon; April 8, 1853.
Greenwood, Major, St. Pancras; Dec. 10, 1852.
Hardcastle, Nicholas, Newcastle-on-Tyne; June 3, 1853.
Hope, Geo. Henry, Seaforth, Liverpool; May 27, 1853.
Leshley, W., Gloster-street, Portman-square; July 31, 1843.
Sutton, John Maule, Greenwich; Jan. 1, 1851.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, June 2, 1853:—

Cardell, John Magin, St. Columb, Cornwall.
Leach, Henry, Trinity-square, Southwark.
Smith, Rowland, Boxted, Suffolk.
Sutton, John Maule, Greenwich.
Westcott, Robert, Middlesex.
Young, George Edward, Gosberton, Lincolnshire.

Royal College of Surgeons, Ireland.—On the 6th inst., the following officers were elected for the ensuing year:—President, William Hargrave; Vice-President, Charles Benson; Secretary of the College, Edward Hutton (ex-President); Council, Sir Philip Crampton, Bart., Alexander Read, Arthur Jacob, Thomas E. Beatty, Andrew Ellis, Robert C. Williams, Robert Adams, James Barker, William Colles, John H. Power, John M'Donnell (Medical Poor-law Commissioner for Ireland), Hans Irvine, James S. Hughes, Robert C. Pentland, Samuel G. Wilmot, Augustus Elliott Tabuteau, Edward Hutton, Robert Mayne, Richard G. H. Butcher. Messrs. Pentland and Tabuteau represent the interests of the country practitioners of Ireland, Mr. Pentland residing in Drogheda, and Mr. Tabuteau in Portarlington.

APPOINTMENTS.

Medical.—The Queen has appointed Dr. James Begbie to be Physician in Ordinary to Her Majesty in Scotland. Mr. J. G. Payne is appointed Resident Surgeon to the Milbank Penitentiary, in the room of Mr. James G. Rendle, appointed Medical Officer of the New Female Convict Prison, at Brixton.

Naval.—Surgeon.—Robert Grahame, M.D. (1843), from the Horatio to the Trihune; Assistant-Surgeon John Elliott (1846), recently serving in the Castor on the Cape of Good Hope station, to be Surgeon.

Military.—5th Dragoon Guards: Assistant-Surgeon O'Connor D'Arcey, M.D., from the 3rd Light Dragoons, to be Assistant-Surgeon, vice Wyatt, appointed to the Coldstream Guards.—11th Light Dragoons: Surgeon John Burton St. Croix Crosse, from the 31st Foot, to be Surgeon, vice Mure, appointed to the 15th Light Dragoons.—15th Light Dragoons: Surgeon John Mure, M.D., from the 11th Light Dragoons, to be Surgeon, vice Marshall, appointed to the 31st Foot.—31st Foot: Surgeon John Marshall, from the 15th Light Dragoons, to be Surgeon, vice Crosse, appointed to the 11th Light Dragoons.—73rd Foot: Assistant-Surgeon Charles Walter Poulton, from the Staff, to be Assistant-Surgeon, vice Young, deceased.—Hospital Staff: John Matthew Biddle, gent., to be Assistant-Surgeon to the Forces, vice Poulton, appointed to the 73rd Foot.

Bombay Army.—At the requisition of the Government of India, the services of Assistant-Surgeon T. Boycott have been placed at the disposal of that authority. Assistant-Surgeons A. M. Rogers and G. Naylor, the former attached to the 2nd, and the latter to the 1st Battalion of Artillery, are placed on general duty, Scinde division. Assistant Surgeons A. L. Williams and J. P. Straton, the former attached to the 1st Europeon Regiment (Fusiliers), and the latter to the 2nd European Regiment, Light Infantry, are placed on general duty, Northern division.

Madras Army.—Assistant-Surgeon W. Johnston, M.D., from 29th Regiment Native Infantry. Assistant-Surgeon G. G. Holmes, from doing duty 29th Regiment Native Infantry, to 29th Regiment Native Infantry. Assistant-Surgeon R. P. Linton, from F. Troop Horse Artillery to E. Troop Horse Artillery. Assistant-Surgeon J. Williams, from Sappers and Miners to 6th Regiment Native Infantry. Assistant-Surgeon H. E. Hadwen, from doing duty 1st Regiment Native Infantry to 35th Regiment Native Infantry. Assistant-Surgeon G. Mackay, M.D., from 35th Regiment Native Infantry to Sappers and Miners.

Bengal Army.—Senior Surgeon W. Montgomerie, Garrison Surgeon of Fort William, and Superintending Surgeon with the troops serving in Burmah, to be Superintending Surgeon on the establishment, from the 15th March, 1853, in succession to Superintending Surgeon R. Brown, deceased. The services of Assistant-Surgeon C. M. Smith, of the 2nd Regiment Light Cavalry, are placed at the disposal of the Foreign Department. Assistant-Surgeon G. Lacon, M.D., on furlough, from the Regiment of Loodianah to the 73rd Regiment of Native Infantry. Assistant-Surgeon W. C. Owen, M.D., doing duty with the 44th Regiment of Native Infantry, to the Regiment of Loodianah, at Berhampore. Assistant-Surgeon J. Irving, M.D., in medical charge of the Regiment of Loodianah, to the Shekhawattee Battalion, at Mirzapore, vice Assistant-Surgeon W. S. Comberbach, promoted. Surgeon William Pitt, new promotion, on leave to the Cape of Good Hope, to the 5th

Regiment of Native Infantry. Assistant-Surgeon S. White, M.D., from the 61st to the 59th Regiment of Native Infantry, at Cawnpore, and Assistant-Surgeon J. Campbell, on furlough, from the latter to the former corps.

Bengal Civil Appointment.—Doctor Alexander Simpson to be Civil Assistant-Surgeon of Tirhoot.

Madras.—Dr. George Shaw, of the Bombay Medical Service, at present acting for Dr. O'Shaughnessy in the Calcutta Mint, has received the appointment of Assay-Master at Madras, and proceeds immediately to take charge of his duties.

Militia.—3rd Regiment of Duke of Lancaster's Own: Thomas Arthur Brandt, gent., to be Surgeon.—Royal Lancashire: James Chambers Ferguson, A.M., M.B., to be Surgeon.

DEATHS.

Bailey.—We regret to announce the death of Dr. Gordon Bailey, who expired on the 8th inst., in his 30th year, at his residence in Penton-street, Pentonville, having taken prussic acid. Dr. Bailey, who was a Lecturer on Midwifery at the Hunterian School, was admitted a member of the Royal College of Surgeons on the 22nd of May, 1846; was an M.D. of King's College, Aberdeen; and had contributed several papers to this Journal. An inquest was held on the deceased on Thursday afternoon, and a verdict was returned of Suicide from taking prussic acid while in a state of temporary derangement.

Brien.—May 8, at 26, St. Mary's road, Canonbury, universally esteemed and respected, Dr. Robert Brien, Surgeon R.N., aged 66; M.D. St. Andrews, 1812; M.R.C.S. Eng., 1820; Surg. R.N., 1808.

Goodger.—May 29, at Ladbroke-place, Notting-hill, William Frederick Goodger, Esq., surgeon; M.R.C.S. Eng., 1813; formerly twenty-one years Resident Surgeon and Apothecary to St. Marylebone Infirmary.

Griffith.—November 5, 1852, off Madras, Samuel Moody Griffith, Esq., surgeon H.E.I.C.S., Bengal, aged 52, grandson of Andrew Paterson, Esq., M.D., formerly of Margam, Glamorganshire. He was a valuable relative, a true and kind friend, and his death is sincerely mourned by many.

Lawson.—March 29, at Burmah, of cholera, William Syme Lawson, M.D., H.E.I.C.S.

Lucas.—May 27, at Chatham, Henry Carr Lucas, Esq., Staff-Assist. Surg. late of H.M. 80th Regiment, and formerly of Exeter.

Stilwell.—June 6, Arthur Stilwell, M.D., of Mnorcroft House, Hillingdon.

Westcott.—May 28, at Ensbury, near Longham, Dorset, Charles Stephen Westcott, Esq., surgeon, late of Ringwood, aged 53; M.R.C.S. Eng., 1822; L.S.A., 1821.

Royal Society.—At the annual meeting, June 2, Dr. Apjohn was elected a Fellow.

The Earl of Rosse gave his third *soirée* on the 28th ult. It was attended by Prince Albert and a numerous assemblage of *savans*. Dr. Scoresby exhibited several ingenious magnetic experiments with his large magnet. The fourth and last *soirée* will be held this day.

Dr. Forbes Winslow.—The degree of D.C.L. has been conferred upon Dr. Forbes Winslow, by the University of Oxford, at the last Installation.

St. Thomas's Hospital.—There prevails a rumour, that Mr. Joseph Henry Green is about to resign the post of Surgeon to St. Thomas's Hospital.

Medical Benevolent Fund.—At the meeting of the Committee of the Medical Benevolent Fund, held May 31st, the Treasurer announced, that, since July 1st, 1852, the sum of 365*l.* 15s. had been spent in grants; the expenses had amounted to 53*l.* 14s. 3d., and the balance due to the Treasurer was 51*l.* 19s. 3d. The Treasurer also announced, that a poor gentleman, who had been elected an annuitant at the previous meeting, had been killed by a blow from a cab in the street. *Cases.*—1. An old medical man and his wife, so reduced in circumstances as to become inmates of an alms-house. They had been previously relieved, and they were now voted 2*l.* 10s., and it was resolved that the name of the husband should be placed on the list of candidates for annuities. 2. The widow of a medical man, who lived in the neighbourhood of London. He died in 1847, leaving seven children, the eldest of whom is subject to epileptic fits. She has endeavoured to maintain her family by teaching in private families. Recommended by Dr. Cormack, Dr. Ridge, and Mr. Shillito. Voted 20*l.* 10*l.* to be given at once, and 10*l.* in November. 3. The widow of a medical man, aged 65. The husband formerly lived in Lincolnshire. The widow is now reduced to get her living by manual labour. Recommended by Dr. Gordon Latham and Mr. Phillips. Voted 5*l.* 4. The widow of a medical man who keeps a school in order to provide for her five children, one of whom is now at home from school, ill. Voted 10*l.* 5. The daughter of a physician, who endeavours to obtain a livelihood by literary pursuits, is in great difficulties, and obliged to exist on the poorest food, which is scarcely sufficient to support life. Voted 10*l.* a-year for three years.

New Medical Society.—A meeting of the members of the Profession residing in Camden town and its vicinity, will, we understand, be held this evening (Saturday), at the Collegiate School, for the purpose of founding a Society, to be termed, the North London Medical and Surgical Society. The Society commences with every prospect of a successful career.

Epidemiological Society.—At the Ordinary Meeting of the Society, held on Monday, June 6, a paper, by Dr. Milroy, was read, entitled, "Sketch of the Most Striking Results of Quarantine in British Ports since the Beginning of the Present Century." Dr. M'William, Mr. B. W. Richardson, Dr. James Bird, Mr. Lord, Dr. Camps, Mr. Hunt, Dr. Babington, and the author of the paper, took part in the discussion, which was prolonged till twenty minutes past ten. The President announced, that at the meeting on July 4, a paper, by Dr. Thomas Nicholson, would be read, entitled "An Essay on Yellow Fever: comprising the History of that Disease as it appeared in the Island of Antigua, in the years 1835, 1839 and 1842."

Metropolitan Dispensary and Charitable Fund.—At a General Meeting of the Governors and Subscribers to the Metropolitan Dispensary and Charitable Fund, Fore-street, City, held June 1, 1853, it was unanimously resolved, "That this meeting deeply regret the severe loss the charity has sustained by the resignation by Dr. Waller of the office of Physician,—a post he has occupied for the lengthened period of sixteen years, to the entire satisfaction of the general body of subscribers, and with great advantage to the suffering poor committed to his charge; and they hereby tender to Dr. Waller their grateful thanks, not only for his able and zealous professional services, rendered at great personal inconvenience, but also for the valuable and generous aid he has so often afforded in promoting the pecuniary interests of the charity, and thereby greatly enlarging the sphere of its usefulness." It was also unanimously resolved, "That, in consideration of the lengthened period of Dr. Waller's connexion with this Institution, and the great appreciation in which his services are held by the Governors and patients, and also on account of his unceasing exertions in promoting the interests of this Charity, he be, and is hereby, appointed Consulting Physician of this Dispensary." At the same meeting, Dr. Leared was appointed Physician to the Institution, in the room of Dr. Waller.

Geological Society.—The following papers will be read at the meeting of this Society, on Wednesday, June 15:—On Some Sections through the Oolite District, Lincolnshire. By John Morris, F.G.S.—On Fossil Insects in the Purbeck and Stonesfield Beds. By the Rev. P. B. Brodie, F.G.S., and J. O. Westwood, Esq.

Cork Government School of Design.—The Committee having accepted Dr. Shinkwin's offer to deliver a course of lectures on Artistic Anatomy, to the students of the School, the first lecture on the Osseous System was delivered on Thursday week, in the lecture-room of the Royal Cork Institution, when large numbers were in attendance.

Rival Brothers—By an unusual coincidence, the successful competitors for the respective prize poems at the two Universities are brothers, the sons of Mr. Reynolds, of Stoke Newington, surgeon. The elder is a scholar of Exeter College, Oxford, and has just gained the Newdegate prize for the English poem. The younger is a scholar of King's College, Cambridge, to whom has been adjudged the Chancellor's medal for the best English poem in heroic verse.

Mortality Notabilia.—The present return exhibits a lower amount of mortality in the Metropolis than has been observed in any previous week since January. The deaths registered last week were 1023, which is about a hundred less than in the week immediately preceding. In the ten corresponding weeks of the years 1843-52, the average number was 892, which, with a correction for increase of population, becomes 981. Hence it appears that the 1023 deaths now returned exceed the calculated amount by 42. The recent decrease is generally apparent throughout the table of fatal diseases, but is most considerable in those affecting the respiratory organs. This class has declined in the number of fatal cases to 129, of which 63 are referred to bronchitis, and 42 to pneumonia. Phthisis, which numbers 152, maintains its preponderance in the list. Typhus has declined in the last two weeks from 53 to 41; diarrhœa from 32 to 21; measles increased from 19 to 28; with these exceptions, zymotic diseases discover no important fluctuation.

ORIGINAL LECTURES.

LECTURES

ON THE

ORGANIC DISEASES AND FUNCTIONAL DISORDERS OF THE STOMACH.

By GEORGE BUDD, M.D., F.R.S.

Professor of Medicine in King's College, London.

Lecture IV.

Ulceration of the Mucous Membrane of the Stomach.—1. The Simple or Perforating Ulcer—2. Minute Superficial Ulcers.

I shall call your attention to-day to an affection of the stomach, which is often brought under our notice in the hospital, and which has been variously termed *simple* ulcer, or *chronic* ulcer, or *perforating* ulcer, of the stomach. The series of preparations which I have placed on the table afford good illustrations of its various forms and results.

In most cases, the stomach presents no marks of disease, except a single deep ulcer on its inner surface. This ulcer is seldom larger than a shilling, but sometimes, especially when it is situated on the posterior wall of the stomach, grows to the size of a crown-piece, or even still larger. It is generally circular or oval, and in all cases extends through the mucous membrane, the edges of which are clean-cut, as if a portion of the membrane had been punched out. Sometimes, the mucous membrane only is destroyed, and the ulcer has then an even base, formed of the submucous cellular tissue. In other cases, after a time, the process of ulceration eats through the other coats of the stomach in succession, so that perforation takes place, and some of the contents of the stomach escape into the sac of the peritoneum.

The outer coats of the stomach are always destroyed in less extent than the mucous coat, so that, when perforation occurs, the aperture seen from without is much smaller than the corresponding ulcer of the mucous membrane.

At first, and often for a long time after the formation of the ulcer, the coats of the stomach at its margin present no change of structure; but, in cases of long standing, the margin of the ulcer, like that of an old ulcer of the skin, is frequently indorated and thickened, from the contraction of lymph that has been effused into the submucous cellular tissue. This hardness and thickening seldom, however, extend more than a line or two from the edge of the ulcer.

It frequently happens, that, before all the coats of the stomach are eaten through, adhesive inflammation of the peritoneum over the ulcer is set up, and lymph is poured out, which glues the portion of the stomach covering the ulcer to the pancreas, or to the left lobe of the liver, or to some other organ with which it happens to be in contact. The adhesions formed in this way often prolong the life of the patient, by closing the aperture made by the ulcer, and thus preventing extravasation of the contents of the stomach into the peritoneal sac.

When the ulcer extends deeper than the mucous membrane, it frequently opens a branch of one of the arteries with which the stomach is supplied, and thus causes sudden and profuse, and, it may be, fatal hæmorrhage.

The ulcer is generally situated along the lesser curvature of the stomach, or near it; usually, nearer the pyloric orifice than the cardiac; and much more frequently on the posterior wall of the stomach than on the anterior. It is hardly ever found in the splenic or great end of the stomach, where the softening of the mucous membrane from the gastric juice is usually met with in the highest degree.

An ulcer is now and then met with in the first or upper part of the duodenum, having precisely the same characters as the simple ulcer of the stomach, and doubtless formed in the same way.

In most cases of simple ulcer of the stomach the ulcer is solitary, and, as I have before observed, the stomach presents no other marks of disease, except such as are clearly traceable to it. Now and then, however, more than one ulcer exists. Of 79 cases collected by Rokitansky, the ulcer was solitary in 62. Of the remaining 17 cases, there were 12 in which 2 ulcers existed; 4, in which there were 3 ulcers; and 1, in which there were 5. Of the preparations which I have placed on the table, there are three in which two ulcers exist in the same stomach. Now and then an ulcer in the duodenum is found in conjunction with one in the stomach.

A simple ulcer of the stomach is sometimes found cicatrised. The ulcer heals just like an ulcer of the skin. The portion of the mucous membrane destroyed is replaced by a dense fibrous tissue, which contracts, and thus draws towards the centre of the ulcer, and consequently puckers, the mucous membrane around it. The newly-formed fibrous tissue has a very different appearance from the mucous membrane of which it takes the place, and never fills up the cavity or depression formed by the ulcer,—so that the scar of the ulcer is readily discernible, by the deep permanent depression which is thus left, as well as by the puckering of the mucous membrane around it. If, however, the ulcer be small, its edges may be drawn together and unite, and a mere stellar cicatrice be left, without any permanent depression.

When the ulcer is large, and situated across the lesser curvature of the stomach, the process of healing, by the contraction that attends it, often permanently alters the shape of the stomach, diminishing its breadth at that part. This change of shape is very striking in these two preparations, in each of which the stomach is divided into two pouches, as if by a string passed transversely round it, looping up the greater curvature towards the lesser.

Such are the facts respecting the simple ulcer of the stomach that have been learned from dissection, and from some of these facts—from the circumstance, namely, that the ulcer always extends through the mucous membrane, and that, when first formed, it has always a definite circular, or slightly oval, shape, and clean-cut edges—there can be little doubt, that it is formed by *sloughing* of the mucous membrane, and not by a process of ulceration commencing at the surface.

The important question now naturally arises, — Under what circumstances does the ulcer occur, and by what agency is it produced? On these points our knowledge is very defective.

The disease is met with in both sexes, but, as it appears, more frequently in women than in men. In the 79 cases I have before referred to, of which an analysis has been given by Rokitansky, 46 occurred in women, 33 in men. It seldom, if ever, occurs under the age of 16, but is found in persons of all ages from this to 60 and upwards. According to Rokitansky, it is met with more frequently in persons beyond 50, than in persons under 30.

It occurs in the different countries of Europe in which morbid anatomy is cultivated; in agricultural districts and in large cities, and, though not with equal frequency, in the various classes of society. It seems to be much more frequent, even considering their relative numbers, among the poor, than among the rich, and, in this country, is generally supposed, and I believe rightly, to be most frequent in the class of maid-servants, between the age of 18 and that of 25. Lastly, the ulcer has not been found in conjunction with, or in sequel to, any other disease, with such frequency as to lead us to conclude that it has any intimate connexion with it.

It is clear that these facts have not yet given us the clue to the real cause of the disease. The circumstance, if it be true, that the disease is more frequent, relatively to their numbers, among the poor than among the rich, and that it is more frequent among unmarried maid-servants than in other classes, would favour the inference, that a state of anæmia disposes to it. But it is almost idle, at present, to speculate further. The observations yet made do not enable us to explain how it is that the ulcer does not occur under the age of 16; how or why it is, that the ulcer is always situated in what has been termed the pyloric division of the stomach, or in the first part of the duodenum; how it is, again, that the ulcer is generally single, and that it is so much more frequent along the lesser curvature of the stomach, or near it, than in any other part.

Peculiarities in the structure or function of the pyloric division of the stomach, or some physiological relation between the stomach and other parts not yet suspected, may, by and by, be brought in evidence, and may perhaps furnish satisfactory answers to these important questions. That there are such physiological relations as I have here suggested, is rendered extremely probable by the remarkable discovery, made a few years ago by Mr. Curling, that severe burns are frequently followed, at least in young

persons, by a sloughing ulcer of the middle portion of the duodenum, which, like the ulcer of the stomach of which I am speaking, frequently destroys life, by eating into an artery, and thus causing sudden and profuse hæmorrhage, or by leading to fatal perforation.

Waiving, then, any further speculation on the cause of the ulcer, let us turn our attention to its effects, and to the circumstances which promote or hinder its healing.

An ulcer in the stomach, however produced, which has extended through the mucous membrane, is clearly very difficult to heal; and when cicatrisation does take place, the lost substance is very imperfectly restored, and, unless the ulcer be a very small one, a deep depression, or pit, is left.

The contrast which the stomach presents in this particular with the small and with the large intestine, is very striking. The ulcers which form in the small intestine in typhoid fever, generally heal in a few weeks, when the force of the fever is past. The ulcers which form in the large intestine in dysentery often heal rapidly, if proper care in diet be taken; and in those cases in which they remain open, or in which some of them remain open, for years, no perforation of the intestine takes place. Lymph is effused at the bottom of the ulcer, which becomes firm and hard, and effectually prevents perforation of the bowel.

Several circumstances conspire to prevent the same thing from happening in the stomach.

The first of these is the great change of volume to which the stomach is liable, two or three times a day. Directly after a meal, it is full and large; and at the end of three or four hours it is again empty and contracted.

The healing of an ulcer must also be retarded by the constant churning motion that takes place during digestion.

Dr. Beaumont observed, that, in the stomach of St. Martin, as long as digestion was going on, the food was regularly carried round and round, in from one to three minutes, from left to right, along the great curvature of the stomach, and from right to left along the lesser curvature.

The sagacity of Hunter had already led him to infer that regular movements take place in the stomach, from the circumstance, that in the hair-balls found in the stomachs of cows and some other animals, the hairs have a regular direction.

In a state of health, we are, happily, unconscious of these movements of the stomach, as we are of the stronger contractions and movements of our hearts; but when an ulcer exists in the stomach they must fret its surface, and be an obstacle to its healing.

The process of healing is doubtless hindered also by the mechanical and other irritation of the sore caused by the various substances which are taken as food.

The mucous membrane of the stomach is so organised, as to bear with impunity, when healthy, the contact of substances differing widely in their qualities. The stomach is intended to be the common receptacle of the various matters from which the nutriment of the body is derived; and its mucous membrane, with which all these matters are brought into contact, is so organised as not to be injured or painfully affected by them. But when a portion of the mucous membrane is destroyed, the mildest articles of food cause pain—a change of temperature even, by the drinking of water too hot or too cold, causes pain—and the surface of the sore is constantly fretted, and its healing retarded, by the contact of those substances which are the natural and appropriate stimulus of the mucous membrane.

The healing of an ulcer in the stomach is probably retarded also by the action of the gastric juice. The solvent power of this juice has, indeed, no injurious effect on the living mucous membrane, but it probably dissolves and removes the lymph which is poured out on the bottom of the ulcer; and it is only by means of this plastic lymph that the lost substance can be repaired, and the ulcer heal.

All these circumstances explain how it is, that a small ulcer, which causes no constitutional disturbance, which may not even much impair the nutrition of the body, and which, if situated in a lower portion of the same canal, might soon heal, becomes so serious a disease,—how it leads so frequently to long-continued suffering, and death.

It is now time that we should consider the symptoms of ulcer of the stomach, and the circumstances by which it may be distinguished from other affections of this organ.

We have already seen, that the disease is one of considerable danger; that it may at any time destroy life, almost suddenly, by causing perforation of the stomach, or profuse hæmorrhage. We have seen, too, that it is a curable disease; that the ulcer, even when of long standing, may heal, and the health of the patient be restored; and there can be no doubt that the healing of the ulcer, and the recovery of the patient, may be brought about or be much promoted by judicious treatment. The health and life of the patient may depend, then, on our making a right diagnosis. But, at an early period of the disease, it is not easy to do this. We are not aided, as we are in the detection of many other diseases, by knowledge of its causes, or of any peculiar circumstances under which it is apt to arise; and, at an early period, the symptoms are of doubtful character, and often the sufferings of the patient, and the derangement of his health, are so slight, as not to alarm either himself or his friends. Sometimes he follows his usual occupations, and seeks no advice, till perforation of the stomach takes place. He does not even regard himself as an invalid, and is considered by his friends in good health, when he is seized suddenly with agonising pain at the epigastrium, and with the other symptoms of peritonitis from perforation, falls rapidly into collapse, and dies within twenty-four or thirty-six hours.

In such cases, the character of the symptoms,—especially the great suffering referred to the stomach, and the suddenness with which life is cut short in the midst of apparent health,—often lead to a suspicion of poisoning. One instance of this kind, which gave rise to a coroner's inquest, has fallen under my own observation, and many others are related in the systematic works on forensic medicine. A perusal of these works might, indeed, lead to the belief, that the symptoms which precede perforation are generally trivial; but such is by no means the case. In a great majority of instances the symptoms are distressing, and, when the disease has lasted some months, they are generally significant enough.

The most constant symptom is pain in the stomach, which is generally referred to a small spot, and is more severe after meals, when the stomach is distended, and when its vermicular movements are going on. The pain usually abates as the stomach gets empty, to be renewed again by the next meal. Now and then, however, pain is also felt when the stomach is empty. Together with this pain, there is some degree of tenderness, or soreness, at the epigastrium; but this is often slight, and, like the pain, is generally referred to a small spot. Besides the pain at the epigastrium, pain is very commonly felt in a small space in the corresponding part of the back. There is also occasional eructation of a sour fluid, and now and then, perhaps only once or twice in a month, the patient vomits his food.

The disease causes very little constitutional disturbance. Unless the ulcer be large, there is complete absence of fever and of thirst, the appetite is commonly but little impaired, and the patient does not fall away perceptibly in flesh or in strength.

The pain at the stomach after meals, and the sour eructations, and, it may be, the occasional vomiting, are the only symptoms of disease. These symptoms persist, and the patient may go on for months, heeding them but little, and following his ordinary course of life. At times, however, the pain at the stomach gets more severe, and the vomiting more frequent, and the appetite fails. Now and then there is slight diarrhœa. These exacerbations render a restricted diet necessary; and, under the influence of this, the symptoms soon return to their former degree, and the patient goes on as before.

After a time, the ulcer may begin to heal, and the pain of the stomach to abate. The process of healing may go on uninterruptedly, and the health be permanently restored; but more generally the amendment is only temporary, and, after a period of comparative ease, the former pain and uneasiness of the stomach returns.

But, as dissection has already disclosed, the ill effects of ulcer of the stomach do not end here: the patient is liable to accidents which may at any moment place his life in jeopardy. The most common of these is profuse hæmorrhage, in consequence of the ulcer eating into one of the arteries in the submucous cellular tissue. The hæmorrhage is often preceded for a day or two by an increase of pain, which may, perhaps, be taken as evidence that the ulcer is spreading; but, in other cases, it occurs without any aggravation of the usual symptoms.

If the blood be poured out in small quantity, or slowly, it may pass off by the bowel, without causing vomiting. The

patient grows rapidly weak and listless, has a slight diarrhœa, without tenderness of the belly or fever, and the discharges from the bowels are copious and black. More frequently, the blood is poured out in large quantities at a time, and acts as an emetic. The patient has a sense of weight at the epigastrium, and a feeling of faintness and nausea, soon succeeded by vomiting of a large quantity—from one to three pints—of black, clotted blood. The vomiting is followed by a state of faintness, and the hæmorrhage ceases. Frequently, the vomiting recurs on the same or the following day, and a large quantity of blood is again brought up. Some blood also passes downwards, and the discharges from the bowels are copious and black.

At the end of a day or two, the hæmorrhage ceases entirely, and the patient is left blanched and weak. In addition to the sufferings which belong properly to the disease of the stomach, he has now those which result from the loss of blood. Slowly, and by degrees, the loss of blood is repaired, and the symptoms directly referable to the stomach alone remain.

In the majority of instances, after the lapse of some months, or, it may be, of two or three years, hæmorrhage comes on again. The patient, after a day or two's increase of pain, but sometimes without this, and quite suddenly and unexpectedly, is taken, as before, with faintness and nausea, which is soon followed by vomiting of black, clotted blood. The circumstances of the former attack are repeated, and, at the end of a day or two, at most, the hæmorrhage again ceases.

In cases which are very protracted—where the ulcer remains open, as it sometimes does, for many years—it happens not unfrequently, that an outpouring of blood, such as I have described, occurs four or five times, at unequal, and, it may be, long intervals. Notwithstanding that the hæmorrhage is generally abundant, it seldom proves immediately fatal. Among a large number of cases of this kind that have fallen under my own observation, there were only two in which this happened. In one of these cases, the patient, who was master of the parish school of St. Clement's, lived in the immediate vicinity of the hospital, and a complete history of his illness was taken. Symptoms of ulcer of the stomach first appeared in June, 1842, when he was 48 years of age; and from this time till his death, which happened in December, 1844, he was frequently under my care on account of it. He had an abundant hæmorrhage from the stomach in October, 1843, which ceased at the end of two or three days, and did not recur till the 20th of December, 1844. On the evening of that day, he grew faint and vomited blood. The loss of blood was not, however, sufficient to prevent his attending to his school as usual. On the evening of the 23rd, he grew faint again, and felt sick, but did not vomit. He complained of griping pains in the belly, but was not purged. About an hour after, he fell down in a fainting fit, and expired.

The stomach, and the whole of the intestinal canal, down to the descending colon, were distended with dark, clotted blood. The ulcer from which the blood came was situated on the posterior wall of the stomach, about two inches to the right of the cardiac orifice, and was as large as a half-crown. It had destroyed all the coats of the stomach down to the pancreas, which was there adherent to it, and had eaten through a large artery, which I took to be the splenic, from which the hæmorrhage doubtless proceeded. Nearer the cardiac orifice was the depressed scar, about the breadth of a shilling, of another ulcer, which had healed.

On the table is a preparation, showing an ulcer on the posterior wall of the stomach, which caused fatal hæmorrhage by eating into the splenic artery; and another preparation, showing an ulcer on the lesser curvature, which led to the same event by laying open the gastric or coronary artery.

Simple ulcer of the stomach, as I have already remarked, seldom proves fatal by hæmorrhage. Cruveilhier states, that, of the cases which he had collected, the only ones that proved fatal in this way were those in which the ulcer had eaten (as in the preparations to which I have just pointed) into the gastric or the splenic artery. These ulcers form most commonly, as we have seen, along the lesser curvature of the stomach, or on its posterior wall; so that the gastric artery, which runs along the lesser curvature, and the splenic artery, which crosses the posterior surface, are liable to be involved in the ulcer.

But death results much more frequently from another accident to which persons with this kind of ulcer are liable—namely, *perforation* of the stomach, and the escape of its contents into the sac of the peritoneum. When this happens, the patient is seized, suddenly, with agonising pain at the epigastrium, soon followed by the other symptoms of peritonitis from perforation, and usually dies in from eighteen to thirty hours.

As I have already remarked, the occurrence of death in this sudden way, in a person who, up to the time of the perforation, had been following his usual course of life, and had seemed in good health, has often led to a suspicion of poisoning. All the concomitant circumstances have, in consequence, been often noticed and recorded with extreme care and minuteness. Mr. Alfred Taylor, who has published an excellent paper on this subject, in its medico-legal relations, (in the 4th volume of "Guy's Hospital Reports,") states, that the perforation generally occurs soon after a meal. Its more frequent occurrence at that time is, no doubt, chiefly attributable to the distension of the stomach which then exists, and to the vermicular movements of its coats which are then taking place; but it may possibly also be owing, in some degree, to the solvent action of the gastric juice. When the ulcer has eaten down to the peritoneal coat, and has, perhaps, impaired the vitality even of this, the gastric juice may exert its solvent action upon it, and immediately cause the catastrophe.

In some cases the process of ulceration is rapid, and perforation occurs early, without having been preceded by any severe or alarming symptoms, and within a few weeks (it may be) of the formation of the ulcer. In other cases the ulcer remains open for many years, giving rise to its ordinary symptoms, and now and then to an alarming hæmorrhage; and, at last, leads to the fatal perforation. A remarkable instance of this kind fell under my care in King's College Hospital, in October, 1843. A house-carpenter, 63 years of age, who had had the usual symptoms of ulcer of the stomach for fifteen years, was brought into the hospital on the 3rd of October, in a state of extreme exhaustion from vomiting of blood, which came on some days before. The hæmorrhage had then ceased, and did not again recur. Two days after his admission to the hospital, perforation of the stomach occurred; and he died in twenty hours. The ulcer, which was not larger than a shilling, was situated on the lesser curvature of the stomach, about half an inch from the pylorus, and had a hard and thickened edge. The rest of the stomach, and the intestines throughout, were perfectly sound.

Occasionally, perforation takes place, but the contents of the stomach are not effused over the whole surface of the peritoneum, so as to excite general peritonitis. The diffusion of the contents of the stomach, and of the consequent inflammation, is prevented by adhesions which have already taken place; and the result is a circumscribed abscess in the sac of the peritoneum, behind the ulcer. One instance of this has fallen under my own notice, and two others are recorded by Dr. Seymour, in a paper published in the *Medical Gazette* for 1844. When this happens, and when the abscess is of considerable size, there is, of course, constant suffering, with loss of appetite and hectic fever, which soon wears out the strength of the patient.

Fatal perforation is, I believe, most common when the ulcer is situated on the anterior wall of the stomach, or along its lesser curvature. It would take place much oftener than it does, were it not for adhesions which are apt to form between the peritoneum covering the ulcer and some other organ which this part of the stomach may happen to touch. Before all the coats of the stomach are eaten through, adhesive inflammation is set up in the portion of peritoneum covering the ulcer, and coagulable lymph is poured out, which serves, in some degree of itself, as a safeguard against perforation, and which glues the stomach at this part to the organ with which it happens to be there in contact. By this means, the aperture which the process of ulceration would otherwise cause is stopped. The pancreas is, from its situation, the organ by which fatal perforation is most commonly prevented. The symptoms which denote this partial adhesive inflammation of the peritoneum are an aggravation of pain and of tenderness, (which are still confined to the region of the stomach,) more frequent vomiting, and a certain degree of fever.

It happens now and then, that, without perforation taking place, or at least without extravasation of the contents of the stomach taking place, the adhesive inflammation of the

peritoneum set up above the ulcer, instead of being confined to the immediate vicinity of the ulcer and leading to the effusion of only a small quantity of lymph, is much more extensive; lymph is poured out in considerable quantity; the stomach becomes united to all the adjacent viscera, and some coils of intestine, it may be, become united to each other,—so that after the inflammation has subsided, besides the symptoms which properly belong to ulcer of the stomach, the patient is liable to obstruction of the bowels, and other evils which result from the natural movements of these organs being restrained.

All this happened in a man from whom the stomach forming this preparation was taken, who died under my care in March, 1845. The stomach was much altered in shape, being lengthened at the expense of its breadth, and was united to all the adjacent organs—the liver, the spleen, the pancreas, the colon—so firmly, that it could only be separated from them by dissection. The coils of intestine in the upper half of the belly were glued together in the same way.

The ulcer, which was the source of all this mischief, was, at the time of death, of the size of a fourpenny piece, nearly circular, and situated midway between the orifices, along the lesser curvature of the stomach. The edges of the ulcer are indurated, and the mucous membrane for some distance around is puckered, by the contraction which the ulcer has undergone.

In this instance, death resulted from exhaustion, which was occasioned, not merely by the ulcer in the stomach, but also by the adhesions of the stomach and bowels which resulted from it. These adhesions, by causing obstruction, led to frequent vomiting, and doubtless interfered in other ways with the functions of those organs.

It now and then happens, when the ulcer attains a large size, that death results from exhaustion, without any such extraneous mischief.

When the ulcer is situated near the pylorus, and is of large size, or has a thick and hardened edge, the action of the muscular fibres near the pylorus is hindered, and, in addition to the symptoms properly belonging to an ulcer of the stomach, there are those which result from obstruction of the pyloric orifice. The stomach does not completely empty itself, and the residue of digestion in it ferments, causing sour eructations, and flatulent distension of the stomach, which is an additional source of pain. After death in such cases, the stomach very commonly contains some gastric acid, which dissolves, or *digests*, the mucous membrane in the big end of the stomach, where this acid collects. The same thing happens when an ulcer, situated some distance from the pylorus, along the lesser curvature, in the process of healing, contracts in a direction transverse to the curvature, and thus loops up the stomach at this part, and divides it into two pouches. In that case the pouch at the big end does not completely empty itself; some of the acid residue of digestion remains in it, and the mucous membrane in this portion of the stomach is found dissolved after death. One of the preparations on the table affords a striking illustration of these effects. The stomach is divided into two distinct pouches by the contraction of an ulcer situated on the small curvature of the stomach, midway between the cardiac and pyloric orifices, and the mucous membrane in the left, or cardiac, pouch has been completely destroyed by the action of the gastric juice after death. This peculiar destruction of the coats of the stomach shows that the stomach contained gastric acid at the time of death, and affords a clue to much of the gastric disorder that exists in such cases.

From the account I have given of the symptoms and effects of ulcer of the stomach, it will be seen that the disease becomes more easy of detection the longer it has lasted.

In its early stages, the symptoms are few and equivocal. Pain and soreness at the stomach felt after meals, occasional acid eructations, and occasional vomiting—which are often the only symptoms then present—may result from various other causes, and even from mere functional disorder.

After these symptoms have lasted some weeks, or months, their very continuance becomes significant: it renders it highly probable that they depend on organic disease, while the seat of the pain, and the circumstance that it is always increased by eating, and usually abates as the stomach gets empty, lead to the inference, that this organic disease is in the stomach.

After a time, the symptoms I have mentioned are often succeeded by the sudden occurrence of profuse vomiting of blood. When this has happened, the detection of the disease becomes much easier.

Vomiting of blood may, indeed, result from various other conditions; but these may generally be distinguished from ulcer by the nature of the illness, and by the circumstances under which it occurs.

1st. Vomiting of blood may result from a general tendency to hæmorrhage, in consequence of a faulty condition of the blood, as in scurvy, or purpura; but in such cases the hæmorrhage is not confined to the stomach; blood issues from other mucous surfaces, and purpuric spots appear on the skin.

2ndly. Again, vomiting of blood may result, as we have seen, from mechanical congestion of the stomach, in consequence of some impediment to the free passage of the blood through the liver or the chest. In such cases, the quantity of blood lost is usually small, and the cause of the hæmorrhage is generally obvious enough, from the co-existence of other symptoms, which reveal the primary disease, and which show that the passage of the blood through the liver or the chest is greatly impeded.

3rdly. Vomiting of blood sometimes occurs, without any organic disease of the stomach itself, in persons who, in consequence of repeated attacks of ague, or other causes, have great enlargement of the spleen. Here, also, the previous history of the patient, his cachectic condition, and the palpable enlargement of the spleen, readily lead us to the original cause of the hæmorrhage.

4thly. Lastly, the hæmorrhage may be vicarious of the catamenia; and this is especially liable to happen in young unmarried women,—the class of persons supposed to be most subject to ulcer of the stomach. But, in such cases, the hæmorrhage usually occurs at the monthly period, and the natural discharge is suppressed, or has previously been irregular; and, if no ulcer of the stomach exist, the vomiting of blood, although it may be attended with severe pain at the time, has not been preceded, and is not followed, by the long-continued pain and soreness produced by ulcer.

In a large proportion, however, of cases even of this periodical vomiting of blood, an ulcer of the stomach does exist, and is the chief, if not the sole, source of the hæmorrhage; but the blood, instead of issuing from a vessel of considerable size, laid open by the process of ulceration, as in ordinary cases of simple ulcer, oozes from the minute vessels of the raw surface, in consequence of a congestion of the stomach, which takes the place of the appointed monthly congestion of the uterus. Symptoms of ulcer of the stomach are then present in the intervals of the vomitings of blood; and the hæmorrhage is traced to a periodical congestion of the stomach only from its occurring at the appointed time, and from its taking the place, of the natural monthly courses.

When vomiting of blood does not depend on any of the conditions which I have just mentioned, it results almost invariably (except in the case of malignant fevers) from organic disease of the stomach itself.

When, therefore, profuse vomiting of blood occurs in a person who exhibits no general tendency to hæmorrhage; who has no disease of the liver, or in the chest, which greatly impedes the passage of the blood; who has no great enlargement of the spleen; and in whom the hæmorrhage cannot, from the time of its occurrence and other circumstances, be referred to disorder of the menstrual function;—we are driven, in reasoning by the method of exclusion, to ascribe it to disease of the stomach itself. When such is the case, and when, moreover, the vomiting of blood has been preceded for some weeks or months by pain and soreness at the stomach, always brought on or increased by meals, hardly a doubt can remain that it actually depends on organic disease of this organ. But, in persons under the age of 30, the only organic disease of the stomach that gives rise to profuse hæmorrhage, with very few exceptions, is ulcer.

It follows, therefore, that, from the peculiar train of symptoms which I have mentioned,—namely, pain and soreness of the stomach, always brought on or increased by meals, continuing for many weeks or months, with occasional sour eructations and occasional vomiting, but without much fever or constitutional disturbance, and succeeded, at the end of that time, by profuse vomiting of blood,—it follows, that, from this peculiar train of symptoms, we may occasionally, in persons between 18 and 30, infer the existence of ulcer of the stomach with almost as much certainty as that of any inward disease.

In persons above the age of 30, vomiting of blood, preceded by disordered and painful digestion, may likewise

occur from cancer of the stomach. For persons, therefore, who have reached this age, the question will arise,—Is the organic disease of the stomach, which we have inferred to exist, simple ulcer, or is it cancer? When the disease has lasted some months, it is usually not difficult to answer this question.

Cancer of the stomach, in most cases, originates at the pyloric or the cardiac orifice, and in some degree narrows or obstructs it. It also gives rise to a tumour, which, at the end of some months, is generally palpable enough; and it *always* interferes greatly with nutrition, causing progressive, and, after a time, extreme wasting.

Simple ulcer seldom produces any of these effects. When, therefore, from the train of symptoms I have mentioned, we have inferred that organic disease of the stomach exists, we may often proceed a step further, and conclude that this disease does not obstruct either the cardiac or the pyloric orifice; and from the circumstance, that the power of digestion remains, and that there is no great wasting, we may conclude, also, that the disease involves only a small portion of the stomach.

We are thus led to the conclusion, that there is organic disease of the stomach of such kind as to cause hæmorrhage,—that this disease involves only a small portion of the stomach,—that it does not obstruct the orifices,—and that it does not form a tumour large enough to be felt. The probability, in such a case, will be very great, that the disease is simple ulcer, and not cancer. The probability is the greater, the longer the previous duration of the disease. A simple ulcer may continue almost stationary—at any rate, with little change in the symptoms—for twenty years. Cancerous disease, on the contrary, constantly and steadily progresses; the symptoms become, week after week, more marked; and, although life may be protracted, especially in colloid cancer, for four or five years, the patient generally dies, much emaciated, within twelve months.

If, then, the disease has lasted this time, presenting the peculiar train of symptoms I have mentioned, and there is still no great wasting, and no evidence that the orifices of the stomach are obstructed, and no tumour to be felt, hardly a doubt can remain, that the disease is simple ulcer of the stomach. The evidence is as complete and decisive as we can well have for any inward disease. Although, then, it may be difficult, or even impossible, soon after an ulcer of the stomach has formed, to distinguish it from some other diseases, the distinction may generally be made surely enough when the ulcer has existed many months.

[To be continued.]

A COURSE OF LECTURES ON ORGANIC CHEMISTRY,

DELIVERED IN THE

Laboratory of the Royal Institution of Great Britain.

By DR. A. W. HOFMANN, F.R.S.

Professor at the Royal College of Chemistry.

Lecture IX.

Gentlemen,—I promised you, in the last lecture, an account of urea as a substance closely connected with the three extraordinary acids which I have brought under your notice. I now proceed to describe to you this highly remarkable body. Urea was first observed as early as 1773, by a French chemist, named Rouelle, who described it under the name of *extractum saponaceum urinæ*. Rouelle, however, obtained this substance only in a state of great impurity, and it was not until 1799 or 1800 that its investigation was successfully performed by Fourcroy and Vauquelin. We may, therefore, say, that the knowledge of urea dates from the commencement of this century. The first accurate analysis of urea was made by Dr. Prout. His experiments have been repeatedly corroborated by many other chemists, and they led to the formula

$$C_2\ H_4\ N_2\ O_2$$

for urea. But let us first ascertain how this substance is procured from urine before entering into farther details regarding its characters. For this purpose the fresh urine of man is evaporated to a weak syrupy consistence, and mixed, after cooling, with pure concentrated nitric acid. A brownish crystalline mass is at once separated which consists of a combination of urea with nitric acid. These crystals which are exceedingly brown are collected and pressed, and then re-dissolved in boiling water. Treatment with animal charcoal and one or two re-crystallizations render them nearly white. It remains now only to separate the nitric acid. This may be done in a variety of ways. A simple plan consists in adding to the solution an excess of carbonate of baryta, and evaporating the mixture to dryness in the water-bath. The residue which now contains free urea, together with nitrate of baryta and excess of carbonate of baryta, is exhausted, at a moderate temperature, with strong spirits of wine, from which the urea crystallizes on cooling.

The existence of urea in so important a secretion as the urine, would have at all times secured a considerable amount of attention to this compound. But the interest of this body has been very much increased by the results obtained in the study of its chemical characters, and by the remarkable circumstances under which its formation was observed at a later period.

In the last Lecture, you became acquainted with the salt which is produced by the action of oxidizing agents upon cyanide of potassium, and which I described to you as oxycyanide of potassium, or cyanate of potassa. You recollect, moreover, the curious process by which Professor Wöhler succeeded in producing the hydrogen-compound corresponding to oxycyanide of potassium, or cyanic acid. An elaborate investigation of the salts of this acid has led Professor Wöhler to one of the finest discoveries which is upon record in the domain of organic chemistry. Among the several salts examined by this chemist, was the ammonium-compound. He produced this substance by the action at the common temperature of dry ammonia-gas upon the vapour of cyanic acid,

$$\underbrace{N H_3}_{\text{Ammonia.}} + \underbrace{H\ Cy\ O_2}_{\text{Cyanic acid.}} = \underbrace{N H_4\ Cy\ O_2}_{\substack{\text{Oxycyanide of ammonium.}\\ \text{Cyanate of ammonia.}}}$$

when the compound condenses as a white, light powder, upon bringing the two bodies in contact. The substance thus produced possesses all the characters of a true oxycyanide. It is decomposed like the potassium-compound, when boiled with either dilute acids or alkalies; the latter evolving ammonia, an alkaline carbonate remaining behind, while the former evolve cyanic acid, the greater part of which splits, as you have seen, at the moment of liberation, into carbonic acid which escapes with effervescence, and ammonia which is fixed by the acid. Oxycyanide of ammonium, obtained in this manner, is apt to contain an excess of ammonia. Professor Wöhler endeavoured to purify his substance by re-crystallisation from water in which it is easily soluble. The aqueous solution, when concentrated by evaporation, deposits, on cooling, long acicular crystals of remarkable beauty. But how great was Wöhler's astonishment, when he found that, by this simple operation, the character of his original substance had undergone an entire alteration. It exhibited no longer any of the properties which distinguish the oxycyanides; dilute acids and alkalies had no longer the slightest effect upon it, although its composition was still that of the true oxycyanide of ammonium. A minute examination of this modified compound soon convinced Professor Wöhler, that the substance in question was nothing else but urea, the crystalline constituent of urine. We have, in fact,

$$\underbrace{N H_4\ Cy\ O_2}_{\substack{\text{Oxycyanide of ammonium.}}} = \underbrace{N H_4\ C_2\ N O_2}_{\substack{\text{Cyanate of ammonia.}}} = \underbrace{C_2\ H_4\ N_2\ O_2}_{\text{Urea.}}$$

This discovery, to which I have alluded already in the commencement of this course, was of considerable importance, inasmuch as it proved, for the first time, and in a most striking manner, the possibility of producing artificially the proximate constituents of plants and animals.

The artificial formation of urea is so readily effected, that urine is scarcely any longer used for preparing this substance. However, to produce economically large quantities of urea, it is necessary somewhat to modify the process. Instead of preparing the cyanate of ammonia by the direct union of its constituents, chemists produce the same effect by double decomposition, according to a method suggested by Professor Liebig, — namely, by the action of sulphate of ammonia upon cyanate of potassa,—when sulphate of potassa and cyanate of ammonia, or urea, are formed.

$$K\ Cy\ O_2 + N H_4\ SO_4 = K SO_4 + N H_4\ Cy\ O_2$$

This flask contains a solution of cyanate of potassa obtained by exhausting with cold water the black residue which remains after the tinder-like combustion of a mixture of dry ferrocyanide of potassium and binoxide of manganese. I mix this liquid with a saturated solution of sulphate of ammonia. On agitating, crystals of sulphate of potassa are deposited which I separate by filtration or decantation. The solution now contains the true cyanate of ammonia, as can readily be proved by the action of acids and alkalies. With dilute hydrochloric acid, the liquid powerfully effervesces; while the addition of hydrate of lime causes the evolution of ammonia. Meanwhile, I have heated the remainder of our solution to ebullition; and you observe, that the solution is now no longer affected by these re-agents. Under the influence of heat, the molecules of cyanate of ammonia have re-arranged themselves, and have assumed the stabler position which they hold in urea. The presence of urea in the solution may be exhibited, moreover, by the addition of concentrated nitric acid which immediately precipitates a crystalline magma of nitrate of urea.

In order to obtain the urea perfectly pure, according to this method, the mixture of cyanate of potassa and sulphate of ammonia must be evaporated to dryness on a water-bath. The residue is exhausted with alcohol from which the urea crystallizes upon evaporation.

The remarkable change which cyanate of ammonia undergoes in all its properties, when passing over into urea, has greatly engaged the attention of chemists. Many speculations as to the mode in which the molecules may be arranged in urea have been brought forward, in order to explain the new character which the compound assumes. These speculations have not, as yet, led to any decisive results; the molecular construction of urea still remains undetermined. Suffice it to say, that the properties of cyanic acid in this substance have entirely disappeared; that urea, in its deportment with other substances has retained the fundamental properties of ammonia which enters into its composition. Like the latter, it combines with acids, and gives rise to a series of well-defined salts. Of these the nitrate, which I had repeated opportunities of mentioning, and the oxalate, which falls down as a crystalline precipitate on mixing urea-solution with oxalic acid, are the most familiar representatives. The former contains $C_2\,H_4\,N_2\,O_2,\,HO,\,NO_5$; the latter $C_2\,H_4\,N_2\,O_2,\,HO,\,C_2\,O_3$. In fact, urea belongs to the class of compounds generally designated as "organic bases,"—a group with which I hope to make you better acquainted in a future lecture, and of which ammonia is the type. Urea and its compounds may be viewed as ammonia and ammonia-salts associated with an equivalent of cyanic acid which has become perfectly latent in this association, and which re-appears again only under the influence of powerful agents of decomposition. Thus we find, that concentrated sulphuric acid, or fusion with an alkali produces upon urea the same effect as dilute acid and dilute alkali upon cyanate of ammonia. Under these circumstances, urea assimilates 2 equivalents of water, and is converted into carbonic acid and ammonia.

$$C_2\,H_4\,N_2\,O_2 + 2\,HO = 2\,CO_2 + 2\,NH_3$$

The same change occurs if urea is left in contact with fermenting substances. Thus we find, that putrid urine contains at last not a trace of urea. Addition of nitric acid to the evaporated liquid no longer produces a precipitate of nitrate of urea, but a brisk effervescence of carbonic acid, while the action of an alkali evolves ammonia in abundance.

The presence of cyanic acid in urea may, likewise, readily be traced by the action of substances which destroy the ammonia in it. Chlorine decomposes free ammonia, with the formation of hydrochloric acid and evolution of nitrogen. Ammonia undergoes the same decomposition when associated with cyanic acid; the latter, in the moment of its liberation, assimilates water, and splits into carbonic acid and ammonia which, in its turn, is likewise decomposed by chlorine.

$$\underbrace{C_2\,H_4\,N_2\,O_2}_{\text{Urea.}} + \underbrace{2\,HO}_{\text{Water.}} + \underbrace{Cl\,6}_{\text{Chlorine.}} = \underbrace{N_2}_{\text{Nitrogen.}} + \underbrace{2\,CO_2}_{\text{Carbonic acid.}} + \underbrace{6HCl}_{\text{Hydrochloric acid.}}$$

In a similar manner nitrous acid behaves, the action of which upon ammonia gives rise to the formation of water, and to the evolution of nitrogen. By passing the vapour of nitrous acid, disengaged by the action of nitric upon arsenious acid ($NO_5 + As\,O_3 = NO_3 + As\,O_5$), into a solution of urea, a lively effervescence ensues, and equal volumes of nitrogen and carbonic acid are disengaged, the latter arising from the decomposition of liberated cyanic acid.

$$\underbrace{C_2\,H_4\,N_2\,O_2}_{\text{Urea.}} + \underbrace{2NO_3}_{\text{Nitrous acid.}} + 2\,HO = \underbrace{N_4}_{\text{Nitrogen.}} + \underbrace{2\,CO_2}_{\text{Carbonic acid.}} + \underbrace{6HO}_{\text{Water.}}$$

This re-action explains why, in the preparation of urea from urine, often not a trace of urea is obtained, if the nitric acid used in precipitating the urea, as nitrate, contain a small quantity of nitrous acid. It is, lastly, by the action of heat upon urea that the presence of cyanic acid in this compound may be readily exhibited. At a moderate temperature, urea fuses without change, but, when strongly heated, it is decomposed, with copious evolution of ammonia. The residue in the retort consists almost entirely of cyanuric acid which retains but a minute quantity of ammonia. If the process of heating be continued, the cyanuric acid undergoes the change which I pointed out to you in one of the preceding lectures—it is converted into cyanic acid. This re-action is at once intelligible if you recollect, that urea contains the elements of cyanic acid and ammonia. Three equivalents of urea split into three equivalents of ammonia which are evolved, and three equivalents of cyanic acid which, at the existing temperature, coalesce to form cyanuric acid, and separate again only upon submitting the latter to a higher degree of heat.

$$\underbrace{3\,C_2\,H_4\,N_2\,O_2}_{\text{Urea.}} = \underbrace{3\,N\,H_3}_{\text{Ammonia.}} + \underbrace{H_3\,C_6\,N_3\,O_6}_{\text{Cyanuric acid.}}$$

$$\underbrace{H_3\,C_6\,N_3\,O_6}_{\text{Cyanuric acid.}} = \underbrace{3\,H\,C_2\,NO_2}_{\text{Cyanic acid.}}$$

In order to complete the history of urea it remains now only to add a few words regarding the methods used in determining the amount of urea in urine. The quantity of urea secreted in the animal organism during a given period may be viewed as a measure of the change of matter in the organism, *i.e.*, of the chemical transformation of its tissues. An exact knowledge of this quantity is of considerable interest, both to the physiologist and to the medical man; and chemists have long endeavoured to find a simple and accurate method of arriving at this result.

Several methods of determining the quantity of urea in urine have been proposed. The oldest plan consisted in evaporating the urine to a certain degree of consistence, and then forming the difficultly soluble precipitate of nitrate of urea, which I have had repeated opportunities of exhibiting to you. This precipitate was collected upon a filter, washed with the smallest quantity of water, dried, and weighed. On account of the solubility of this compound, it is obvious that this method could yield scarcely approximate results, inasmuch as the quantity of urea retained upon the filter entirely depended upon the quantity of water used in washing.

Another method consisted in determining the amount of nitrogen in the evaporated urine, from which the uric acid had been previously separated by the soda-lime process which I have explained to you in one of the earlier lectures. This method is based upon the assumption, that urine, freed from uric acid, contains no other nitrogenous principle except urea, an assumption which, although true in most cases, is known to be incorrect in some. Moreover, the necessity of performing a complete nitrogen-determination which, although sufficiently easy in the hands of the chemist, is scarcely simple and expeditious enough for the physiological and medical observer, has prevented this method from being generally adopted.

Two other suggestions for the determination of urea are founded upon some of the changes of urea to which I have already alluded. I have pointed out to you, that, under certain circumstances, urea behaves like cyanate of ammonia. This is the case, for instance, when urea is treated with water under pressure; it then assimilates water, and splits into carbonic acid and ammonia. Of this reaction Bunsen has availed himself. He exposes urine mixed with an ammoniacal solution of chloride of barium, in an hermetically sealed glass tube, to a temperature of from 480° to 500° Fahr. (250° to 260° C.), when the urea is decomposed, and furnishes a quantity of carbonate of baryta which is equivalent to the amount of urea.

Millon, lastly, makes use of the change which urea undergoes when acted upon by nitrous acid, and which I have illustrated to you experimentally. The carbonic acid evolved in this reaction is collected in an ordinary potash-apparatus; from the increase in weight the amount of urea is calculated without difficulty.

Both these methods which, in the hands of skilful experimenters, yield perfectly accurate results, have, nevertheless, been almost exclusively employed by their inventors, the successful performance of these analyses requiring no small amount of experimental dexterity, and involving, moreover, a considerable expenditure of time and labour.

Pressed by his physiological friends, Professor Liebig has devoted much time and work to the elaboration of an accurate and, at the same time, easy and expeditious process. His labours have been perfectly successful.

The new method is founded upon the fact of nitrate of urea forming, with protoxide of mercury, a white compound which is perfectly insoluble in neutral solutions. This compound is not affected by carbonate of soda, while salts of mercury yield with this re-agent a precipitate of yellow protoxide of mercury. The process, therefore, consists in adding to the urea-solution which is to be analyzed, a standard solution of nitrate of mercury, until a drop of the liquid in which the white precipitate is suspended, when mixed upon a watch-glass with carbonate of soda, exhibits a yellow colour, which shows that an excess of mercury-solution has been added. The performance of the experiment involves several precautions, which will become at once intelligible if we examine somewhat more minutely the composition and the properties of the new urea-compound. $C_2\ H_4\ N_2\ O_2$ being represented by Ur, this compound contains—

$$Ur,\ NO_5 + 4\ HgO,$$

and is formed according to the following equation :—

$$Ur + 4\ (HgO,\ NO_5) = Ur,\ NO_5 + 4HgO + 3NO_5$$

In the formation of one equivalent of the compound, not less than three equivalents of nitric acid are set free, retaining in solution a considerable quantity of the precipitate, which is rather freely soluble in nitric acid. This nitric acid has to be neutralized. Generally, this is done by baryta-water which is added in the commencement of the operation, and thus separates, moreover, the phosphates and the sulphuric acid present in the urine.

Another difficulty presents itself in the solubility of the urea-compound in liquids containing common salt. This solubility depends upon the conversion of the oxide of mercury into the chloride which produces no insoluble compound with urea. You observe, corrosive sublimate has not the slightest effect upon a solution of urea. Now, since nitrate of mercury is converted into chloride by the action of common salt which is itself converted into nitrate of soda,

$$HgO\ NO_5 + NaCl = HgCl + NaO,\ NO_5$$

it is evident, that this re-agent will produce a precipitate in a solution of urea containing common salt, only after the whole of the common salt is converted into nitrate of soda. Now, since urine contains almost always small quantities of common salt, (from 1 to 1½ per cent.) it is necessary to make an allowance for this deporment; for, unless we did so, the amount of urea found would be too high. In accurate experiments, Liebig obviates this error by determining the amount of chloride of sodium by means of a second standard solution of mercury which is added to the urine until a permanent precipitate indicates, that all the chloride is converted into nitrate of soda. The quantity of chlorine in the urine being thus determined, the chlorine is now removed from a fresh portion by means of a solution of nitrate of silver likewise graduated. The urine thus freed from chlorine may now be directly tested with the standard solution of mercury.

I refrain from entering into farther details regarding this beautiful process, which furnishes the amount both of common salt and of urea in urine with great accuracy and surprising rapidity; my object being to delineate to you the principle of the method, not to teach you the actual performance of the experiment, for which the practice of the laboratory is indispensable. The manipulations and the preparations of the standard solutions of mercury are minutely described by Liebig in his paper on this subject, which has been communicated to the Chemical Society of London.(a)

(a) Quarterly Journal of the Chemical Society, Vol. VI.

ORIGINAL COMMUNICATIONS.

CASES OF PLACENTA PRÆVIA.

By CHARLES WALLER, M.D.
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Case 52.—April 28th, at midnight, was called to visit a patient, in consultation with Mr. Marsh. This lady was 35 years of age, had given birth to eight children, and had miscarried several times. Her habit was highly excitable; she had lost a large quantity of blood during the preceding four weeks, by which her strength had been greatly impaired. On the preceding day, slight labour-pains supervened, attended with more flooding, and a consequent increase of debility.

When I visited her, she was somewhat revived, having had a short doze; her countenance was exsanguined; the pulse feeble, but not inordinately hurried. On examination, the os uteri was found high in the pelvis, dilated to about one-third of its extent; and over the whole of this dilated portion, the substance of the placenta was distinctly felt. On introducing the entire hand into the vagina, a portion of the membranous bag could be felt anteriorly, and, through it, the breech of the child, as the presenting part. The membranes were ruptured, the hand carried onwards, the feet easily grasped, and a living child extracted.

No depressing effects followed the operation, and the patient was left, to all appearances, in a very satisfactory condition.

She progressed very favourably until the fourth day, when, in consequence of a disagreement with her nurse, who had greatly neglected her, she became violently excited, the pulse fearfully accelerated, great watchfulness, restlessness, and an approach to delirium.

On the fifth day after delivery, I visited her, and prescribed salines with ammonia through the day, with a full dose of morphine at night, together with an evaporating lotion for the head. The next day she was much relieved; as, however, she had a teasing bronchial cough, a small quantity of tinct. scillæ was added to the draught. On the morning of the eighth day, I was again summoned, and found my patient in a moribund condition. I was informed, that rather a free hæmorrhage had occurred a few hours previous to my arrival, which had been checked by the usual applications. There was, however, no rally, and death occurred soon after my visit. A short time prior to the supervention of the flow, the patient was sitting up in her bed, feeling perfectly comfortable.

Case 53.—May 7, was requested to visit a patient of Mr. Amsden's, who was advanced as far as the eighth month of pregnancy, and had been confined three times previously without the occurrence of any alarming symptom. Hæmorrhage, to a greater or less extent, had continued for the past month, until this day, when it increased to a very alarming extent, and still continued, without any decided labour-pains. I found this lady in a state of extreme exhaustion, her countenance blanched, the pulse very feeble and greatly accelerated. Her general appearance was, indeed, most unpromising. The yelk of an egg, with a small quantity of brandy, was administered, which occasioned slight re-action.

On examination, the placenta was found occupying the anterior and lateral portions of the cervix uteri, the os not much dilated, although dilatable, and the hand and foot of the fœtus presenting. Slight difficulty was experienced in the delivery of the head, in consequence of the non-dilated condition of the os uteri; in other respects, the extraction was easy. The child was dead; no movement had been felt since the previous evening.

No hæmorrhage occurred either during or after the delivery, but there was no decided and satisfactory rally for several hours. On the following day, when reaction took place, the pulse rose to 140, and there was some abdominal tenderness, which induced Mr. Amsden to prescribe a few doses of calomel and opium, and to apply a terebinthinate poultice, since which, he informs me, our patient has gradually improved.

Finsbury-square.

A CASE OF SARCINA VENTRICULI OF MANY YEARS' DURATION,

TREATED BY THE HYPOSULPHITE OF SODA.

By R. NEALE, M.D.

Late Physician's Assistant University College Hospital.

Edward H., aged 61; height 5 feet 7 inches; says he was once 5 feet 8 inches; thin; never very stout, but says he was once much stouter than at present. Fingers and nails of natural conformation; right-handed. Complexion florid, slightly jaundiced, as well as conjunctivæ; the latter not markedly so; irides light brown; hair grey. Has not been able to work for the last two years at all; previous to that time he was a whitesmith, a laborious trade; has occasionally overworked himself. As a rule, his hours were from 6 a.m. to 8 p.m. Is single; has always lived well and regularly, both as regards food and sleep. Meat once or twice a day, and always masticated his food well. Drank beer, as a rule, very seldom spirits; very seldom too much, and has never been intemperate in any way. Clothing good; flannel next the skin for the last twenty years; never got wet. Bed never damp, good; room airy; sleep good until five years ago or so, since which time it has been disturbed, he awaking twenty times in the night; often has the nightmare, but does not dream much; if at all, the dreams are agreeable. He states, that after awaking suddenly from the nightmare, which comes on when he has not vomited for two days, he always perceives a strong smell of brimstone (he had not, at this time, taken any sulphur medicinally.) Venery nothing particular; memory good, and is fond of reading; smokes less than one pipe a day on an average; neither takes snuff nor chews. Temper good now, but formerly was hasty; cheerful. Born, and lived twenty-one years, in an open, dry agricultural district; then travelled about the country in search of work. For the last twenty-eight years has lived in a small, healthy manufacturing town. No hereditary taint of any kind discoverable. Born at the full time; was always a weakly child, and was suckled during infancy. Has had the usual complaints of childhood, complicated by no sequelæ, so far as he knows. Had epistaxis once; never, to his knowledge, passed blood by any other passage. Five years ago, a piece of iron fell on his head, causing a severe wound, followed by erysipelas; has had slight headache occasionally since.

Present Attack.—About eleven years ago, he felt a pain all over his bowels, which was generally relieved by food, and also by friction. This pain came on at no regular periods, and often he was quite free from it; at other times, it was so severe, that only the prone position could relieve it. He also experienced severe pain in the lumbar region.

About two years after first experiencing these distressing symptoms, he began to vomit, at no particular time of the day, the first portions being generally mixed with food, the latter clear, as consistent as thick gruel, and not acid to the taste.

He did not at first vomit more than once a month, and even might go three months, and once was a whole year, free from it altogether; but he always felt pain and nausea at the epigastrium, except during this year, which was about six years ago, and he attributed his relief to a box of pills he had taken. The pain is less since the vomiting came on than before, and now it is of a different character to what it was eleven years ago, the sensation being, he says, as though there was something very heavy hanging to the stomach by a string. He refers it to the umbilicus, and states, that when he stands erect it drags, and that to relieve it he is obliged to walk in the stooping posture.

For the last three years the vomiting has been much more frequent; three times a-week, sometimes four, often every day; the pain, however, has decreased, and the vomited matters altered in character and taste, being like "beer grounds," he says, and intensely acid. He has not noticed the "yeast-like" appearance of the ejecta more than five years; and it may be well, perhaps, to state here, that a casual allusion to this peculiar appearance, made by his sister, then in my service, directed my attention to the patient, who lived six or seven miles away from me at the time, under the care of a medical friend, who courteously permitted me to treat the case; the distance, however, prevented me taking such full notes of the case as otherwise I should, consequently that fact must apologise for the many deficiencies therein.

Upon two occasions, he states, he has vomited gallons during the day, accompanied by a "porter-like fluid." The first time was about three years since, when he vomited, about 9 a.m., (about) Ovj. of "barm-like matter" before breakfast; next, at 3 p.m., he thinks about Oiv. of a yellow-looking fluid; and at 7 p.m., Ovj. of a "porter-like fluid." In October, 1851, he again vomited large quantities of fluid, together with Oij. to Oiij. of the "porter-like fluid," which was tasteless, and had not the characters, he says, of blood. Up to 1853 the vomiting has been much of the same character, and in large quantities, often several pints during the day, but accompanied by none of the "porter-like fluid."

Appetite is pretty good sometimes; at others, eats nothing for two or three days; very seldom brings up his food, even if the vomiting comes on soon after eating; always troubled with flatulence and eructations, particularly before vomiting, at which time he feels it all working up into a head, like "fomenting barm," as he calls it, inside his stomach. The last portions ejected are so acid as to scald the mucous membranes of the mouth and fauces. Has never noticed bile in the ejecta. The pain, during the sickness, is relieved by pressure. Bowels, as a rule, very costive; motions black, and hard as a rope, sometimes less so than at others; often scybalous. Urine varies; some days clear and abundant, other days thick, turbid, and less abundant, with a white sediment. No pain on micturition, but he complains of a sharp griping pain over the abdomen, when he lies on the left side or back. He states that he feels better at times, when the bowels are freely relieved; that he has also derived benefit from effervescing powders of carb. soda and tartaric acid; yet, although he has been more or less under treatment eleven years, he has gradually got worse and worse.

Physical Examination.—Abdomen distended; general dulness, on percussion, over the gastric region, which feels harder than natural; no definite tumour can be felt; the sensation conveyed to the hand is that of great hypertrophy of the abdominal muscles, (due to constant vomiting?) The stethoscope, applied over stomach, elicits a distinct, gurgling sound, like gas escaping through a liquid. He has not vomited since last evening, Feb. 1, 1853. Heart and lungs healthy. Liver dulness not increased; does not extend below false ribs.

Examination of Fluid Vomited Feb. 1, 1853.—Quantity about Oij. Thick, viscid, adherent as synovia, being with difficulty poured out of a wine-bottle. Aspect peculiar, the upper portions being "barm or yeast-like," the lower more resembling gruel. Re-action very acid. The microscope exhibited numerous sarcinæ with the yeast-plant, and sporules of the penicillum glaucum.

On Feb. 23 he commenced treatment. To save space, I may say, that he was ordered the diet of a patient suffering from diabetes mellitus, with the following medicine:—

℞ Ammon. sesquicarb. gr. iij.; inf. quassiæ ʒj. Ft. haustus ter die sumendus.

℞ Sulph. sublim. ʒi.—ʒij. pro re natâ si alvus non soluta sit.

On Feb. 23, previous to commencing the above, a careful examination was made of the fluid ejected the previous day.

Chemical Characters, etc.—Not viscid; diffluent as water; opalescent; no yeast appearance. On being poured,

1. Into a glass, the upper part, after standing an hour, appears like pale milk and water; when held up to window, cannot discern bars through it. Smells acid, not unlike the well-known odour of brewing. Re-action intensely acid, effervescing with carb. soda.

(a) A portion being boiled in a test-tube, becomes slightly clearer, due to fat rising and forming a ring on the surface, and a slight (albuminous) deposit falls.

(b) Nitric acid, added cold, no change; hot, the fluid becomes slightly yellow (carbazotic acid); clears more than in (a).

(c) Muriatic acid: cold, no change; hot, as in (b), excepting the yellow colour is not produced.

(d) Acetic acid: cold, no change; hot, as in (c).

(e) Liquor potassæ: when boiled with 1-3rd vol. of liq. pot., the usual indications of the presence of sugar. The man had not been forbidden that article of diet previous to the examination.

2. The sediment of the fluid, after standing an hour, occupies about 1-20th of the glass, and is quite white.

Microscopical Examination.—1-4 object-glass, No. 2 eye-piece, equal to 500–600 diam.

1. Supernatant liquid: drops taken from surface and several inches below, contain only oil-globules and sporules of fungi in great abundance, with a few epithelial scales; no sarcinæ.

2. Sediment: made up of immense multitudes of epithelial scales, sarcinæ, sporules of penicillum glaucum (?), with a few pieces of muscular fibre here and there; besides which last objects, were others of the same reddish colour, unstriated, irregular in shape, and apparently made up of an innumerable multitude of minute specks not larger than pins' points when magnified with this high power. At first they were believed to be portions of muscular fibre partially decomposed; but further examination negatived this view. There appeared to be transition forms between these masses and the true sarcinæ. Have they anything to do with the reproduction of the latter? No torulæ seen in field. Size of sarcinæ, $\frac{1}{6\,6\,0}$ — $\frac{1}{3\,0\,0}$ inch diam.

March 2.—Much the same; if anything rather easier since taking the sulph. and ammonia.

A table, exhibiting at a glance his state up to the time of commencing the hyposulphite, and kept by himself, will, when compared with another, kept since that period, show the effects of the remedy more strikingly than making a daily report of the case. The first of these tables will be found at the end of the report of March 23.

Urine about a pint, straw-coloured, very faintly acid; sp. gr. 1031; a white flocculent precipitate of 1-12th its volume. Liquor potassæ gives, when boiled with it, a slight brown colour. The microscope shows only a very few crystals of uric acid, mixed with epithelial scales.

Ejecta watery, less opalescent than last report; quantity, about two quarts; intensely acid; sp. gr. 1016. When boiled with liquor potassæ, does not become so brown as does the urine.

Microscopical Characters.—Sarcinæ very abundant, larger than last report, and of various shapes, mixed with epithelial scales; also large, dark, round masses, together with others less regular in shape, of the same general aspects, exactly resembling the compound crystals of uric acid and urate of ammonia, figured in Dr. Garrod's plate of the urinary deposits. The murexid test carefully applied, showed the presence of abundance of uric acid in the ejecta.

23rd.—To-day saw the patient, who says he feels better; the bowels are not so costive since taking the sulphur, and the motions are neither so black nor so hard. On the 17th, he passed a very white motion, he says; he has not vomited for nearly a week, but has not yet commenced the hyposulphite, since I was anxious once more to examine carefully the ejecta before he did so, to determine, if possible, the nature of the singular masses noticed in last report. He has not taken the ammonia mixture for nearly a week. Yesterday (22nd) he vomited about a quart of whey-looking fluid, with a thin stratum of fat on the surface, and depositing a light-coloured sediment of one-fourth its volume. Reaction intensely acid, smells strongly of sulphur, due to medicine; sp. gr. 1020.

Microscopical Characters, 500–600 diameter.—A drop of the sediment contains numerous sarcinæ, but not so numerous as last report; also many of the "round balls," insoluble when boiled in hot water, varying in size from $\frac{1}{1\,0\,0\,0}$ to $\frac{1}{4\,0\,0}$ inch diameter. When held to the light, these "balls" glitter just like the ordinary crystals of uric acid. They have no resemblance to the balls composing sulph. sublim. which he is taking. When rubbed between two pieces of glass, they give a sensation of grittiness; unaffected by acetic acid, hot or cold. Nitric acid dissolves most of the largest balls; does not affect (apparently) many of the smaller ones.

A few drops of sediment, evaporated carefully after the addition of a drop of nitric acid, and afterwards exposed in the usual way to the vapour of ammonia, give the characteristic murexid tint. None of the irregular masses were noticed in the field.

Urine acid, much more so than last report; amber-coloured, with a copious light pink deposit; sp. gr. 1035; quantity, Oij.

℞ Sodæ hyposulph. ʒiv.; inf. quassiæ ʒxij. Ft. mist. cujus capiat cochl. j. magn. ter die.

Diet as before.

A tabular view of the state of the stomach, bowels, and urine, from Feb. 24 to March 22, previous to commencing the hyposulphite of soda. The quantities are only approximative, since the patient kept daily notes of his own state:—

	State of Stomach and Bowels.	*Urine.*
Feb. 24.	Slight pain; no sickness.	Oj., clear.
25.	No pain. Vomited Oij. of thin white fluid, flaky.	Oiss., ditto.
26.	Slight pain; bowels open. Vomited Ojss., rather thick, with white, barmy top.	Oj., thick, with blue scum on surface.
27.	Slight pain; griping; flatulence. Vomited Oij. same as 26th.	Same as 26th.
28.	Very painful up left side of stomach and bowels; no sickness.	Oiss., clear.
Mar. 1.	Slight pain in bowels. Vomited Oiv., the chemical and microscopical examination of which is given in report of March 2.	Oj.; characters in report of March 2.
2.	Easy; no sickness.	Oj., clear.
3.	Slight pain in bowels. Vomited Oij., thick and white.	Oiss., clear.
4.	Pain across loins; no sickness.	Oij., clear.
5.	Pain in bowels; no sickness.	Oij., white.
6, 7.	Easy; no sickness.	Oiss., clear.
8.	Slight pain. Vomited Oiv., thin, white.	Oij., clear.
9, 10, 11, 12.	Slight pain, and each day vomited Oij. of thin white fluid.	About Oj., clear each day.
13.	Easy; no sickness.	
14.	Griping pains. Vomited Oij.	Oj., clear.
15.	Griping pains. Vomited Oiss., thin and white.	Oj., clear.
16.	Slight pain. Vomited Oiv., white and thin.	Oj., clear.
17.	No sickness; bowels open; motion very white.	Oiss.
18, 19, 20, and 21.	No sickness.	Oj. to Oiss. per diem.
22.	Vomited Oij., thick.	Oij.

April 2.—To-day saw patient, who came six or seven miles, and appeared fatigued by the journey. He states, that he feels decidedly better since the change in medicine, and that his symptoms are altered in many respects; he certainly appears much improved in his general aspect. Still complains of costiveness and sickness, but says the ejecta are much altered to what they used formerly to be, and are not nearly so abundant.

Examination of Matters Vomited.—Thin, pale, slightly opaque, very acid, with a thin white scum on surface, and a slight white deposit on standing. Sp. gr. 1015. Boiled with liq. pot., becomes reddish-brown, showing a moderate amount of sugar to be present. The "scum," under microscope with former power, exhibits numerous fungus sporules and many "round balls," but no sarcinæ. "The sediment" consisted of numerous epithelial scales, sporules, "large round balls," some irregular in shape. Here and there in the field were scattered deep blood-red balls, or cells, $\frac{1}{2\,0\,0\,0}$ to $\frac{1}{1\,0\,0\,0}$ inch diam.; in some cases aggregated in masses. Sarcinæ not nearly so numerous as formerly, and their crucial markings are far more distinct than ever they have yet appeared. The middle portion of the fluid contained merely fungus sporules. Urine Oiss. to Oij., acid, more so than formerly. Sp. gr. 1050. With liq. pot., gives plain indications of the presence of sugar. Under the microscope, exhibits only a few octohedral oxalates.

℞ Sodæ hyposulph. ʒvj., inf. quass. ʒxij., ʒss. ter die; diet as before.

May 2.—Better; not seen. Rep. mist. ut antea.

5th.—Saw patient to-day at his own home, he being too weak to visit me; states that, when he last last came (April 2), the walk much fatigued him, and that he has since suffered from severe prostration. The sickness has greatly abated, and the vomited matters are greatly altered in appearance, not at all like the "yeast vomit." He discontinued the mixture for a fortnight before the 2nd inst., but not the sulphur, which he continued to take as an aperient.

He did not take any other medicine except a simple aperient powder.

℞ Sulph. præcip. ʒj. ad ʒiss. pro re natâ, et omit. sulph. sublim.

℞ Ol. jecor. aselli ʒj. ter die. Pergat in usu mist. ut antea.

14th.—I received the following letter:—

"Since taking the oil and the fresh kind of sulphur, otgether with the mixture, I have been a great deal better, and have nothing to send you (ejecta). My stomach and bowels have been very easy, and motions more regular."

Rep. mist. ut antea.

June 4.—To-day, called on patient, who feels much better in every respect; general appearance much improved; fancies he has gained flesh lately; appetite pretty good; has attended to directions regarding diet as much as possible; bowels much more regular; motions rather brown, not black, not so costive, not mixed with scybalæ as formerly, altogether more relaxed; no pain in stomach, but has occasional pain in loins and left side; none of the dragging sensations he formerly complained of; can now lie on back or either side; urine quite clear, more abundant than formerly, no sediment; sleeps pretty well, for two or three hours at a time; no nightmare since taking the hyposulphite; feels altogether stronger and in better spirits. States, that, on May 17, he vomited for the last time; it was about Oj. in quantity, as clear as water, not mixed with food; it tasted sour, but not nearly so much so as formerly. He says, that often of a morning he brings up before breakfast a table-spoonful of clear fluid, nearly tasteless, accompanied by no pain.

℞ Tinct. ferri sesquichl. ɱx., augend. ad ɱxxx., in aquâ ter die, et persist. in usu medicament. aliorum.

A tabular view of the state of the stomach, bowels, and urine, from March 23 to June 4:—

	Stomach.	*Urine.*
Mar. 23.	Slight pain. Vomited Oij., thin and white.	Oj., clear.
24.	Easy, no sickness.	Oiss., high-coloured.
25.	Slight pain. Vomited Oj.	Oj., ditto.
26.	Ditto. Vomited Oij. Bowels open; motion brown, costive	Oiss., clear.
27.	Easy. Vomited Oiss., thick.	Oiss., ditto.
28.	Slight pain; no sickness.	Oj., clear.
29.	Easy; no sickness; bowels open; motion white and costive.	Oij., clear.
30.	Easy. Vomited Oij., thin and white.	Oj., turbid.
31.	Slight pain. Vomited Oiv., thin and white. The characters of this are given in report of April 2.	Oiss., red, characters in report of April 2.
April 1, 2.	No sickness; easy motions, costive.	Oj., clear.
3—May 5.	Sickness very rare, and ejecta much altered; not so intensely acid, and not "barmy" in appearance.	About Oj.—Oiss. per diem, clear.
May 5—16.	No sickness.	
17.	No pain. Vomited Oj., thin, clear, fluid like water, and acid to taste, but for the last seven weeks the intense acidity has disappeared; bowels more regular; motions natural in colour and consistence; no scybalæ.	
May 17—June 4.	No sickness; no pain; bowels and motions as reported in May 17.	

In the preceding case, the remarkable influence of the hyposulphite over this singular disease is well seen, the patient having been purposely treated with other remedies previous to commencing the hyposulphite. During the 3—4 weeks, or 27 days, he was taking the sulphur or carb. ammonia, from which he derived benefit, he calculated that he vomited 27 pints; while, during 10—11 weeks, or 74 days, since taking the hyposulphite, he calculated that he only vomited little more than 13—14 pints, 12½ of which were ejected within the first 9 days. He has taken about 4oz. of the drug at present. The nature of some of the microscopical objects noticed in the ejecta must be decided by more mature observation, and the deficiencies in the report of the case generally excused, on account of the impossibility of devoting sufficient time and attention to it, in a wide country practice.

Any particulars of interest that may hereafter be elicited, shall be noted, and, if worthy of public notice, inserted in this Journal.

Ombersley, Droitwich.

ON THE ADMINISTRATION OF REMEDIAL AGENTS BY THE RECTUM, IN THE FORM OF ENEMATA.

By HENRY SMITH, Esq.

Associate of King's College; Vice-President of the King's College Medical Society.

[Read before the Society, February, 1853.]

My attention has been drawn of late to the subject of this communication, from having observed the very great benefit resulting from the use of nutrient and medicinal enemata, in some very desperate cases, where there was not a possibility of introducing anything into the system through the medium of the stomach, that organ having completely lost the power, for a time, of retaining anything; or the patient being in such a condition as prevented the attendants from being able to exhibit anything by the mouth without unjustifiable violence; and it has appeared to me, that the vast benefit which may be produced by the employment of enemata as a means of giving nourishment and medicine is not recognised as it should be; at all events, the subject is one which is by no means unworthy of our consideration; and I purpose to direct attention to it in a brief form.

It frequently happens, that, in the course of certain acute diseases, and during the severe constitutional disturbance following upon important operations of surgery, the stomach completely loses the power of retaining anything which is put into it, whether in the shape of solid or fluid. Vomiting is excited whenever any such attempt is made; and, in fact, in numerous instances, this is the most troublesome and serious symptom which the physician or surgeon has to deal with. If the patient has suffered much, either from a severe and acute attack of disease, or from the shock of a dangerous operation, the persistence of vomiting will produce such an amount of exhaustion, that death speedily ensues. This will the more especially obtain, if there has been a previous loss of blood to any great extent; for the energy of the brain and nervous system will have become so much reduced, that that amount of nervous power which is necessary to the stomach for the simplest exercise of its function, is not transmitted to the organ; and, in this case, the introduction of medicine or nourishment by the mouth will not only do no good, but will in reality add to the already existing mischief; for vomit the patient will, and nothing, in a weak state, so much exhausts the body as the continual act of vomiting. This has been strikingly illustrated by the fact of persons in a weak condition of health having been completely exhausted during a voyage, by the constant sickness with which they have been affected.

When a patient is brought into that state in which he is unable to retain the least amount of nourishment or medicine by the mouth, and is thereby thrown into a condition of extreme danger, it becomes necessary to look to some other means of supplying the system, and of rousing him from such alarming depression.

These means consist in the use of enemata, containing simple nutriment or other agents; and here the practitioner fortunately possesses a most valuable expedient. He has it in his power to calm symptoms the most distressing, and even rescue his patient, who may be fast hurrying to dissolution. As an example of the power of removing a most distressing symptom by such means, I will briefly allude to the following case. A young and intimate friend was suddenly laid upon the bed of death from an attack of pericarditis. I sat with him night and day during his illness, and watched every phase of his sufferings, which were of the most distressing kind it has ever been my lot to witness. The most violent and urgent symptom was vomiting, which soon

became incessant, and could not be alleviated by anything introduced into the mouth. This produced a terrible sensation of thirst; and it was truly painful to witness the patient's distress. After having tried various remedies, I determined upon the exhibition of some beef-tea by the rectum. Small quantities were injected every few hours; and the result was, that the tormenting thirst was quickly allayed; and, although death was not prevented, the poor fellow was relieved of a symptom which must have been dreadful.

It is in instances, however, where death is immediately threatened in consequence of the inability of the system to get nutriment by the stomach, and of the incessant and exhausting vomiting, that the use of nutrient and stimulating enemata is followed by such beneficial effects. One of the cases which most forcibly illustrate this, occurred to me some short time ago. It is as follows. I was suddenly called to a gentleman, aged 25, of a fine, robust frame, late one evening. On getting to the house, I found that he was in an apparently dying state. His face was deadly pale. He was sighing, constantly turning from one side of the bed to the other, and had all the appearances of one dying from immediate loss of blood. On inquiry, it was ascertained, that an operation of a somewhat serious nature had been performed upon him, and that he had been losing an enormous quantity of blood. Those in attendance had exhibited large quantities of brandy, fearing he would soon die; but, when I saw him, the powers of the stomach had completely failed. It would not retain anything; and, even if a small portion of ice was placed in the mouth, the act of vomiting was excited. I stayed with this gentleman during the night, and was enabled to check the bleeding to some extent; but the incessant vomiting persisted, and towards morning, it appeared to me that, unless some nourishment or stimulant could be got into the system, death must inevitably result. I therefore determined to try no more remedies by the mouth, but at once ordered some strong beef-tea and brandy to be mixed together, and injected. This was retained; and in a short time, a small quantity was repeated, when the effect became visible in the pulse becoming fuller, and the patient himself getting more sensible. The injections were repeated three or four times, and I would not permit anything to be put into the mouth. In the course of a few more hours, decided improvement was visible; the stomach, not having been taxed at all, began to recover its power, and was able to retain small quantities of pure brandy. In forty-eight hours, the patient could keep down some mild nutrient food, the hæmorrhage was entirely checked; and, in the space of three days, he was completely out of danger.

It has occurred to me to see, in the practice of the hospital, and in private practice as well, some very extraordinary instances of recovery after the frame had become so exhausted, and after such unmistakable symptoms had set in, that it could not be doubted that death was beginning to approach; but I do not recollect that it ever happened to me to attend upon a case where death appeared more imminent, and where life was preserved, than obtained in the instance of this gentleman; and, without wishing to take any particular credit to myself, I cannot help firmly believing, that he was snatched from destruction by the timely and judicious employment of stimulating enemata; for it would have been hopeless to have made any further attempt to get nourishment into the system by the usual channel, when a morsel of ice, even, could not be retained within the mouth; and, in order to show how extremely desperate the case was considered to be, it was suggested, a few hours before the enemata were used, that transfusion of blood should be employed, for it was just the case in which this remedy would be likely to be attended with success; however, all of those consulting did not agree to this measure. My accomplished friend and brother member in this Society, Mr. A. Edwards, who, I see, is present, will vouch for the correctness of this portrait, as he was in attendance with me, and rendered valuable assistance.

All those who have attended much upon patients, after severe surgical operations, accompanied by great loss of blood, know that, among other symptoms which follow profuse hæmorrhages, vomiting is especially to be dreaded; the brain and nervous system have become so much impaired, that the stomach has not imparted to it enough nervous power to allow it to carry on the simplest of its functions,—viz., the retention of nourishment in a fluid form. It is plain that, in this state of things, it will be worse than useless to continue giving remedies by the mouth, if a fair trial has been made, and yet the stomach refuses to retain anything. As the vomiting depends upon a loss of nervous power, it is evident, that this latter must be in some way restored before the organ can carry on its functions. This species of vomiting is totally different from the same action produced in various inflammatory and other diseases, which in reality is the effect of irritation or inflammation of its lining membrane, or consequent upon sympathy with some other parts; nor should it be looked upon in the same light with the incessant vomiting which is every now and then observable as following the performance of a severe operation; in either case, the abnormal action of the stomach must be treated in a different manner, and may be speedily allayed. If dependent upon irritability or inflammation, it will be stayed by the exhibition of small doses of hydrocyanic acid or creosote, or by the application of counter-irritation or belladonna to the pit of the stomach. If it is the result of the sudden shock of some severe injury or operation, unattended with any great loss of blood, perfect quiet for a time, or a full dose of opium, will be serviceable. The opium will, in all probability, stay on the stomach, and prevent further vomiting, by soothing the nervous system. If, however, it is the result of a profuse and long-continued hæmorrhage, this symptom becomes one of significant and most serious import; and it is one which shows, that the loss of blood has produced a crushing effect, as it were, upon the nervous system, and that death is beginning to ensue. From the result of my own limited observation, it appears to me, that, after a severe hæmorrhage, continued vomiting is to be looked upon as the most alarming symptom. The primary object in the treatment is, of course, to check the hæmorrhage, if that be possible, and then to get some nourishing and stimulating fluid into the system. The only method of effecting this, short of transfusion of blood, is to inject into the rectum small quantities of beef-tea and brandy at repeated intervals, and leave the stomach at perfect rest for some hours.

It is highly important, however, in a case of this kind, to look narrowly into the causes of vomiting, otherwise we may be led astray, and needlessly alarmed; and, as a proof of this, I will mention the following particulars:—Some time ago, I performed the operation of lithotomy upon a young patient. Matters went on well until about the twelfth day, when secondary hæmorrhage ensued to a most alarming extent; and, in the course of a few hours, the lad was placed in such a state, that I was compelled to be constantly by his bed-side. He became quite blanched, but was enabled to take plenty of nourishment and stimuli. On the morning of the second day after the bleeding, a message was sent to me, to the effect, that the patient had begun to vomit his food. The bleeding was not yet entirely checked, and the boy was in a very reduced condition. I now became seriously alarmed, and expressed the opinion, that nearly all hope was gone. On visiting the patient, I found that the report was true, but, on examination, I learned that a boiled egg had been given to him about an hour previously. My mind was vastly relieved by this intelligence; for, in the weak condition of the patient, it was plain that such an article of diet would be rejected by the stomach. Strict orders were given not to allow anything but small quantities of brandy and beef-tea. The consequence was, that the vomiting did not recur, and the patient slowly rallied from the dangerous condition he had been in for two days. This case proves the necessity both of making strict inquiry into the cause of vomiting, as well as of exercising extreme care in the exhibition of nutriment in such a condition.

Sometimes, after severe shocks, accompanied with loss of blood, the vomiting, which is so fatal a symptom, may be checked, and yet the patient may not rally; in fact, the cessation of vomiting will appear to be a more sure sign of death. On Friday, August 22, I performed a severe operation on a delicate young woman. The proceeding appeared to produce a most serious shock to the system. There was bleeding going on by slow degrees, and, on the evening of the following Monday, she began to vomit, and all the symptoms rapidly got worse. By the use of ice, creosote, and small quantities of brandy, the stomach was quieted, and, on the following morning, at eight a.m., I found that the vomiting had quite ceased, and that nourishment was retained well; however, the other symptoms became more marked, and the poor girl died at mid-day. In this case it appears, that there was not even sufficient power left for the continuance of vomiting.

I shall not say anything more in reference to this point, but shall go on and consider other conditions in which the employment of nourishment and medicine by the rectum is followed with most excellent results, and where, in fact, there is an absolute necessity for it.

The first of these named conditions is where the patient cannot be made to take food or medicines, and is thereby brought into a most dangerous state,—as in certain forms of delirium tremens. The objects to be obtained in the treatment of this disease are two: to procure sleep, and to nourish the exhausted frame; and in some desperate cases it is impossible to do so by the medium of the stomach without further exhausting the patient; but there can be no difficulty, with sufficient assistance at hand, in employing nutriment and medicine by means of enemata.

I was summoned, in the middle of the night of September 16th, to the proprietor of one of the large hotels in this city; when I arrived, I found the patient in a violent state of delirium from drink; he was jumping about his room, and could not be restrained by his ordinary medical attendant and two watchers, and was alarming his family very much. I got him into bed, and had him tied down. He had been ill for some days, was very much exhausted, and refused to take anything. After very patient trials, we found it useless to attempt to get anything down by the mouth, and chloroform was tried, but it produced convulsions, and was discontinued. He became afterwards exceedingly violent, breaking away from his bands, swearing and shouting most horribly, until the evening of the following day, when matters took a change much for the worse; the pulse became very rapid and thread-like, the face pale, the mouth covered with sordes, and the eyes turned up; still we could not get him to take anything, and at midnight I left the patient, thinking not to find him alive in the morning, but desired that an injection, containing strong beef-tea and brandy, with a full dose of laudanum, should be used, and repeated. On my visit the following morning, I found that he was a shade better; he had fallen asleep after the second injection, and continued so for three hours; he was, however, still very delirious, but we managed to get him to take porter, into which some opium was placed. He improved slowly in the course of the day, slept still more the following night, and from that date gradually rallied, and is, I believe, now at his old habits of drinking.

It appeared, both to the practitioner in constant attendance and to myself, that this patient's life was saved by the timely employment of the stimulating and soothing injections; at all events, I think it a good illustration of the great benefit which may result from their employment in similar states.

The other condition referred to is when it is impossible or inexpedient to introduce food into the stomach from a wound in the pharynx or œsophagus, as happens when this tube has been partially cut across in a suicidal attempt to destroy life. It is true, that a tube may be passed down the œsophagus, and, by this means, nourishment may be thrown into the stomach; but this is very questionable practice, for the contact of the tube may produce an amount of irritation and inflammation which may destroy life. In such a case, it will be most prudent to nourish the patient by the rectum; and it is extraordinary how life may be prolonged, and even saved, in this way. And of all cases I have ever seen of the good effects of nutrient enemata, the most striking was that of a patient whom I saw in company with Mr. May, in the Reading Hospital. A young woman had attempted to commit suicide by cutting her throat. A most frightful wound was made, and, among other injuries, the pharynx was extensively wounded. Consequently, it was thought most judicious to refrain from passing any tube into the stomach, and Mr. May determined to keep the patient alive by the use of nutrient enemata alone, and she was not permitted to make attempts at swallowing anything. Seeing this case at the commencement of the treatment, I took much interest in its history, and some time afterwards I received the following communication from Mr. May, in answer to an inquiry I made in reference to the patient:—"The poor girl with cut throat has done well. The wound is not quite healed, and she is still in hospital. On reference to my book, I find that she was nourished entirely and sufficiently, by beef-tea injections, for *twenty-six days*, not having been allowed to swallow anything during that time."

There are other conditions of disease or accident where it will be more prudent and more easy to exhibit nourishment and medicine by the rectum than by the stomach; but it appears to me that I have referred to those which are most frequently met with in practice.

One word as to the mode of employing these enemata, and as to the material used. When it is the object merely to support the frame and supply nourishment, and when there has not been any loss of blood or any previous serious depression, strong beef-tea is doubtless the best thing to use. But if there has been severe hæmorrhage, and it is required to rouse the patient from dangerous collapse, the mixture which is to be thrown up should consist of equal parts of beef-tea and brandy. Great care should be taken not to inject too much fluid at one time, otherwise it will excite the bowel and be rejected, and do no good. From four to six ounces is the quantity I have been in the habit of using; the whole of this will, in all probability, be absorbed. If necessary, the injection may be repeated in the course of four hours. It is desirable to inject it as high up as possible; and, therefore, a long elastic tube should be used, and passed along the bowel as far as it will go with safety. I need not mention, that it would be well for the practitioner to use the injections with his own hands; for, indeed, the circumstances which call for their use always demand his continual attendance.

I fear, gentlemen, that you will consider this paper rather an uninteresting one, and that the subject is hardly one which you would have expected to have heard brought forward at this Society, where we have for years past been accustomed to listen to and discuss subjects of great practical and scientific value. The reason why I have brought this subject before you to-night, is because I feel convinced that it is a very important one in a practical point of view, and that the good which may be effected by the employment of food and medicine, in the form of enemata, is not sufficiently acknowledged. The subject, although a simple one, is worthy, in my humble opinion, of your deep consideration; and I should feel obliged, if any among you would, during the discussion, relate any cases which may have been observed by you, and which could corroborate my own strong opinion of their great efficacy.

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

DISEASES OF THE TUNICS OF THE TESTIS AND SPERMATIC CORD.

The following cases afford some very interesting illustrations of the rarer forms of disease to which the coverings of the testis and spermatic cord are liable, and important principles of treatment are also exemplified by them. Before proceeding in their narration, we may refer those interested in the subject to the *Medical Times and Gazette*, for April 9, 1853, page 370, for the particulars of two cases of diffuse hæmatocele of the cord; and to that for April 16, of the same year, page 397, for a report of a case in which abscess in that structure occurred.

KING'S COLLEGE HOSPITAL.

Hydrocele with much Thickened Tunica Vaginalis.....	Mr. Bowman.

ST. BARTHOLOMEW'S HOSPITAL.

Double Encysted Hydrocele of the Cord	Mr. Stanley.
Double Encysted Hydrocele of the Cord or Epididymis ...	Mr. Stanley.

GUY'S HOSPITAL.

Hydrocele, with much Thickened Tunica Vaginalis	Mr. Cock.

THE LONDON HOSPITAL.

Encysted Hæmatocele of the Epididymis.....	Mr. Curling.

THE MIDDLESEX HOSPITAL.

Hydrocele with Thickened Tunica Vaginalis	Mr. De Morgan.

KING'S COLLEGE HOSPITAL.

HÆMATOCELE, WITH MUCH THICKENED TUNICA VAGINALIS.—EXCISION OF THE TESTIS AND ITS COVERINGS.

[Under the care of Mr. BOWMAN.]

The history of the first case of our series is very briefly as follows:—

A. F., aged 50, was admitted on January 7, 1853, suffering from a very large hæmatocele of the tunica vaginalis of two years' standing. The disease had been originally produced by a blow on

the part, and, at a subsequent period, much aggravated by another injury. Mr. Bowman introduced a trocar, and evacuated nearly fifty ounces of thick, brown fluid, containing blood. The walls of the cavity were so thick, that they collapsed but very imperfectly, and, in the space of a week, the swelling had attained fully half its former size. Mr. Bowman now determined to lay open the sac freely, and examine its condition. This having been done, under the influence of chloroform, it was found that the cavity contained, besides about twenty ounces of fluid resembling that previously drawn off, a great quantity of solid effusion, which adhered firmly to its lining membrane, and completely concealed the testis. The attempt to dissect away these diseased coats, and to leave the gland, appeared, from their close adhesions, to be almost impracticable; and as, considering the patient's age, the value of his testis did not seem to equal the risk involved in allowing the whole to suppurate, Mr. Bowman came to the conclusion to remove the whole diseased structures. This was done, and the man subsequently recovered very well. On subsequent examination, the testis was found embedded in the posterior wall of the sac, the extreme thickening of which was sufficient almost to obliterate its projection.

ST. BARTHOLOMEW'S HOSPITAL.

DOUBLE ENCYSTED HYDROCELE OF THE SPERMATIC CORD.—RADICAL CURE.

[Under the care of Mr. STANLEY.]

John Moggridge, aged 20, was admitted March 17, 1853, on account of a firm-feeling swelling on the left spermatic cord, about an inch above the testis. It was about the size of a walnut, and might be readily moved up and down; its parietes were so extremely tense, that it was impossible to say conclusively that it was not solid. The previous history of the patient, as explained by Mr. Stanley, was, however, opposed to such a conclusion. Mr. Stanley stated, that the man had been under his care two years ago, on account of a tumour much resembling the present one, but situated on the opposite cord, about midway between the testis and the external abdominal ring. It was so hard feeling, that the question of excision was seriously entertained; but, on introducing a trocar, however, a clear serous fluid ran out, which was found, on examination, to abound in spermatozoa. The trocar puncturation did not cure it; and it was only after having laid the sac freely open with a bistoury, and dressed it from the bottom with lint, that its permanent obliteration was secured. The walls of the cyst were remarkably thick; and it was not for some time afterwards that their complete absorption was effected.

The similarity of the present tumour to the former one was so close, that Mr. Stanley judged them of like character. The same treatment was pursued; but the fluid which escaped, instead of being, as before, like milk and water, was of a clear bright straw-colour, and, when examined by the microscope, no spermatozoa could be detected. The cavity, which had very thick walls, was filled with lint, and allowed to suppurate. After a short time, healing took place, and the man was discharged quite well on the 2nd of April.

Mr. Stanley took occasion to point out to his clinical class, that these tumours were examples of the two distinct forms of encysted hydrocele of the cord. In the one, a new cystic development takes place by the dilatation of some structure in close apposition or actually connected with the vas deferens. In these the fluid is usually of a milky appearance, and abounding in spermatozoa. The second class consists of those formed by mere serous effusions into portions of the peritoneal investment of the cord, which have escaped obliteration. In these the fluid is mostly clear, and exactly resembling that of hydrocele. It contains usually no spermatozoa.

DOUBLE ENCYSTED HYDROCELE OF THE CORD OR EPIDIDYMIS.—PALLIATIVE TREATMENT.

[Under the care of Mr. STANLEY.]

In the following case, as no opportunity for the dissection of the parts has yet been afforded, it is impossible to say with certainty in what structure the cysts are formed; looking to their peculiar position with regard to the testis, however, it would not seem an improbable supposition, that they are seated, as in the case of Mr. Curling's about to be related, in the head of the epididymis itself. Their very large size and symmetrical development on both sides, are features of great interest.

Henry Green, aged 59, was admitted, in May, 1853, on account of large fluctuating tumours on each side the scrotum, which was altogether considerably larger than an adult head. The skin of the penis was completely everted, and all that could be distinguished of that organ was a raised ridge extending down the front of the tumour. At first sight, there did not appear any reason why these swellings should not be identical in character with common hydrocele; they were oval in shape, freely fluctuating, and easily transmitted light. On further examination, it was found, however, that the testicle on each side, instead of being behind, was in front of the rest of the swelling. On the left side, this gland was near the lowest part, but on the right it was situated not far from the middle, in each it was very plainly felt. The man had suffered from the disease for eight years, which had commenced on the left side. Ten months ago, he had been tapped on both sides by Mr. Stanley, at which time the swellings were even larger than at present. Mr. Callender, Mr. Stanley's house-surgeon, informed us, on reference to his notes, that on that occasion there were drawn off from the right side 49 ounces, and from the left 58 ounces. The fluid was milky, and contained spermatozoa.

The man appeared to be afraid of any radical operation, and, having been before so much relieved by the simple evacuation of the fluid, he was anxious to have the same means again resorted to. Mr. Stanley, accordingly, again used the trocar, drawing off from the right tumour 28 ounces, and from the left 45 ounces. After this the scrotum and penis assumed their natural shape and size, and in the course of a few days the man was discharged quite well. The fluid from both tumours contrasted strongly with that of common hydrocele; it was in one case quite opaque and whitish, and in the other but slightly turbid, as if from the admixture of a few drops of milk; in neither had it any yellow tinge. Mr. Callender again examined it with the microscope, and detected numerous spermatozoa. When heated, its turbidity was but slightly increased, showing that it contained but a very small quantity of albumen. On the addition of a solution of nitrate of silver, a very copious precipitate of the white chloride was thrown down.

Note on Diagnosis and Treatment of Hydrocele.—In connexion with the subject in hand, it may, perhaps, not be uninteresting to some of our readers if we allude to a simple but very useful contrivance, which, in hospital practice, we frequently see resorted to in the examination of suspected hydroceles, as to the transmission of light. The ordinary plan of taking the patient into a dark room, and holding a candle on one side the scrotum, is troublesome, and does not always succeed. By looking through a tube, however, the end of which has been firmly placed on one side the tumour, the experiment is much simplified, as common daylight will serve, and, by the exclusion of all extraneous rays of light, several sources of fallacy are avoided. Such a tube may be constructed extempore, by rolling up a sheet of paper, or a stethoscope will serve the same purpose admirably.

By far the most common method for the radical cure of hydrocele which we see resorted to in the London hospitals is that by the injection of the tincture of iodine. At St. Bartholomew's, Mr. Lloyd is in the habit of using the ointment of the nitrico-oxide of mercury for the same purpose. Having evacuated the whole of the fluid, he introduces through the canula a probe, the point of which has been thickly smeared with that ointment, and moves it about in the interior of the sac. The plan appears to succeed very well. In the majority of cases which come under his care, Mr. Wormald prefers to resort only to the palliative treatment by acupuncture. From twelve to twenty stabs with a full-sized needle are made in different parts of the tumour, the fluid contents of which escape into the cellular tissue of the scrotum, and are absorbed in a few days. The advantages of the plan appear to be, that it involves neither pain, loss of time, nor the slightest risk of any ill consequence. Its disadvantage, of course, is, that it requires to be frequently repeated.

GUY'S HOSPITAL.

HÆMATOCELE OF THE TUNICA VAGINALIS, WITH MUCH THICKENED SAC.—OPERATION.—RECOVERY.

[Under the care of Mr. COCK.]

John Cary, aged 21, a groom, was admitted Feb. 17, 1853, on account of a supposed enlargement of the right testis. In the right half of the scrotum was an egg-shaped tumour, the size of a fist, smooth, and rounded in every part, to the touch tense and elastic, without yielding any sense whatever of fluctuation. The tumour presented the same characters behind as in front, and no part of the epididymis could be felt; the cord was perfectly normal. The man gave the following history of his affection:—About three years ago, when out riding, he struck his testicle against the pummel of the saddle, and within a few weeks afterwards noticed that it was considerably increasing in size. After

about six months he put himself under Mr. Paget's care, at St. Bartholomew's Hospital, who introduced a trocar, and drew off "more than a gill" of clear fluid, which evacuated, the testis did not appear to be of more than its natural size. Soon after this operation, he received another blow on the part, and on the next occasion the fluid drawn off by the trocar was tinged with blood. The trocar was subsequently used eight times by different surgeons, the last occasion being only a few weeks before his admission; the fluid varied in quantity from four to six ounces, and was always dark and grumous-looking. The swelling had at first been quite painless; latterly, however, it had ached a good deal, and had prevented him from following his occupation; it was not tender, excepting in a few parts. As to general health, he stated, that he had formerly been very robust, but that, during the last three months, in spite of an excellent appetite, he had gradually lost flesh. His appearance, however, was still that of a healthy man. Guided in his decision by the history of the case, Mr. Cock introduced a trocar into the tumour, and drew off a small quantity of dark brown fluid, after which the swelling was not sensibly decreased in size. Now arose the important and very difficult question of diagnosis. Was this tumour due to distension of the tunica vaginalis merely, or to enlargement of the gland itself, and, if the latter, to fibro-cystic disease, or medullary cancer? The history of the case, the form of the swelling, and the entire absence of thickening of the cord, favoured the former supposition: but then fluctuation could not be detected; the mass felt firm and solid, and it had not been materially reduced in size by puncture with the trocar. The evidence was of course conclusive, that effusion into the serous sac had existed, but this might have been merely secondary, and dependent on the irritation of a diseased testis. Nothing is more common than for some degree of hæmatocele to occur in malignant disease of the gland; and Mr. Cock stated, that, in more than one instance, he had seen perfectly limpid hydrocele fluid drawn off under such circumstances. The man had a quiet pulse at 100, and certainly did not exhibit any degree of "malignant cachexia," but he was decided in his conviction that he had been losing health. The tumour itself, however, had not the characters of a medullary testis; it was too evenly rounded, and did not present those alterations as to solidity and softness in different parts which are usually met with in that disease; it did not yield arterial blood when punctured; the skin did not adhere to it, and the cord was not thickened. Wishing to give the man the benefit of treatment by constitutional means before resorting to the knife, Mr. Cock ordered a course of iodide of potassium, the patient to be confined to bed, and the part wrapped in lint, spread with mercurial ointment. These measures were persevered in for more than a month, during the latter part of which a slight ptyalism had been kept up; no diminution in the size of the swelling, however, resulted. The man was now anxious to have something further done, and as it did not seem desirable to lose time, Mr. Cock determined to perform an exploratory operation, leaving his ulterior measures to be determined by the information so gained.

On March 29th, the patient was brought into the operating theatre, and placed under the influence of chloroform. Mr. Cock then made an incision of considerable length down the long axis of the tumour, and having laid open the tunica vaginalis, a considerable quantity of thin grumous fluid, with large masses of half-decolorised blood-clot escaped. On passing the finger into the aperture, it entered a cavity capable of containing a large egg; at the back and lower portion of which was a perfectly healthy testis. The cavity had a smooth lining membrane, and its walls, which were extremely firm, and at least half an inch in thickness, were composed of condensed tunica vaginalis. These walls were so dense, that they scarcely collapsed at all; they were, in fact, of almost cartilaginous induration. Having washed out the sac and enlarged the external aperture, Mr. Cock introduced a piece of sponge, attached to a string, to serve as a tent, and also to prevent bleeding, and a layer of wet lint having been laid over the wound, the man was sent back to bed. After the operation, Mr. Cock remarked, that he thought there was good reason to hope that a cure might be accomplished without the removal of the testis. He anticipated that a profuse suppuration would now occur, by which the thickened tunica vaginalis would probably become reduced in size, and ultimately adhere to the testicle, so as to effect a complete obliteration of its sac.

May 16.—The man is now quite well, and about to leave the hospital. During the first few weeks after the operation the discharge from the opened tunica vaginalis was very profuse; it was, however, not attended by any severe constitutional symptoms. Gradually the sac filled with granulations, and its walls having become thinned down, adhered to the enclosed testis. The latter organ may now be felt in a perfectly natural condition at the bottom of a mass of induration which marks the remains of the thickened sac.

June 11.—Shortly after the last note, this patient was discharged. Mr. Cock has seen him once since, and informs us that the induration has very considerably diminished, and appears to be gradually undergoing absorption.

THE LONDON HOSPITAL.

LARGE ENCYSTED HÆMATOCELE OF THE EPIDIDYMIS.—DOUBLE CYST—EXCISION OF THE TESTIS.

[Under the care of Mr. CURLING.]

THE second and third of the preceding cases (those under Mr. Stanley's care) were examples of the formation of large serous collections in the neighbourhood of the testis, not in the cavity of the tunica vaginalis, but in independent cysts connected either with the epididymis or lower part of the cord. The fourth case, that of John Cary, (Mr. Cock's), was peculiar, not in respect to the location of the fluid, for there was little doubt but that originally it had been a common hydrocele, but because of the extreme thickening which the walls of the sac had undergone, and of the change of the contained serous fluid into one of a sanguineous character. The following case possesses in itself the whole of these features of interest. The containing cyst was formed in the epididymis, the contained fluid was blood, and the walls of the cavity were so thick, that when divided they did not collapse. Hæmatocele of the epididymis is probably a very rare disease. Sir Astley Cooper mentions but one case, and that without recognising its true character, and no specimen of it is to be found in the Hunterian Museum.

John Burchfield, aged 49, admitted May 27, states, that thirteen years ago, in the course of his occupation as a cordwainer, he received a sharp blow over the left testis, after which the gland became swollen and tender. He consulted a medical man, who ordered him to keep his bed for a few days, after which, as the tenderness had subsided, he returned to his work. From that time to the present, however, the swelling never quite disappeared, but for the last ten years has been gradually increasing. On account of the aching pain in the gland when not supported, he has been obliged to wear a suspensory bandage ever since the accident. The swelling has never been tapped. The reason of his present application for advice is, that the swelling has much enlarged during the past week, and become very painful. The left side of the scrotum is distended by a fluctuating tumour of very large size, at the bottom of which a more solid-feeling mass is distinguishable (testis). The cord, almost up to the external ring, is thickened and firm, and although in most of the lower parts of the tumour there is communicated, on handling it, the sensation of fluid contained within very dense walls, yet in its upper third it feels firm and solid. Mr. Curling introduced a trocar at the lower part, and drew off ʒxxiv. of a grumous bloody fluid, by the removal of which the swelling was considerably reduced, and the existence of the testis in its lowest part made clearly evident. The patient was ordered to be confined to bed, and the scrotum well supported by a crutch-pad. On account of restlessness, an opiate was administered in the evening.

June 2.—The man was this morning brought into the operating theatre, and a consultation was held upon his case. After the puncture a week ago, a very large amount of solid material had remained, especially in the upper half of the swelling. The walls of the cavity from which the fluid had been drawn, were so firm and thick, that they collapsed but very imperfectly, and by re-secretion of fluid the swelling had now regained fully half its original size. The scrotum was reddened and dusky. As to diagnosis, Mr. Curling expressed himself as very confident, that the disease would prove to be an hæmatocele either of the tunica vaginalis or lowest part of cord; yet there appeared to be just a possibility that the solid part of the tumour, which, from the man's history was of recent formation, might be due to the development of a malignant growth. It was accordingly determined to perform an exploratory operation. Mr. Curling first introduced a trocar into the fluctuating part of the swelling, and drew off about ten ounces of a thick, brown fluid, evidently containing blood. The cannula having been withdrawn, a large director was inserted in its track, and the interior of the sac laid open with a bistoury. The incision having been freely enlarged, there were found to be two distinct cavities, divided by a tough membranous septum, placed horizontally. The upper one was distended with a large quantity of firm, coagulated blood, and the lower contained fluid of the same character as that which had been previously drawn off. On passing the finger into the latter, the testicle was felt as a resisting mass at its lowest

part; it did not, however, jut into the cavity as it does into the sac of the tunica vaginalis, but was evidently external to it. The walls of the cyst were of great density, being, exclusive of the induration of the cellular tissue around them, at least a quarter of an inch thick; their lining membrane was of a pale colour, and rendered rough by adherent layers of lymph and blood-clot. A second consultation was now held as to the propriety of attempting to save the testicle. The cavity was too large to be, without risk, laid open and left to suppurate; and if the attempt were made to dissect it away, it was plain that, from its close adhesions to the skin, and from the large quantity of extravasated blood above it, that great injury must result to the surrounding parts. Mr. Curling stated, that, if the patient had been a young man, he should certainly try to preserve the testis, but, considering his age, he did not think the value of that organ sufficient to counterbalance the risk involved in such an attempt. In this opinion, Mr. Luke, Mr. Adams, and others present concurred, and the whole diseased parts were accordingly dissected away, together with an elliptical portion of skin from the front of the scrotum, which adhered closely to the tumour. Ligatures having been placed on a large number of bleeding vessels, the parts were brought into apposition by means of sutures, and covered by a compress of wet lint.

In order to make a careful private dissection, Mr. Curling had the excised structures removed without further mutilation. On the following week, he announced to those assembled in the operating theatre the results of his examination. The thick-walled cavity was a cyst which had been formed in the head of the epididymis, and did not in any way communicate with the tunica vaginalis. As the result, however, as it appeared, of its close neighbourhood to the diseased structure, the latter had become inflamed, for its cavity was quite obliterated by adhesions and a thin layer of dry coagulated blood. The testis itself was nearly twice its natural size, and its section showed little yellow masses, which, on microscopic examination, proved to be composed of half-organised lymph. The appearance of division into two separate chambers exhibited by original cyst was caused by a very large extravasation of blood into its walls at the upper part; and, judging by the man's history, this effusion had, in all probability, occurred just before his admission, and produced the pain, inflammation, and other symptoms, which led him to apply for advice.

June 15.—The man is thus far progressing favourably; the wound looks healthy, and appears likely to heal well.

MIDDLESEX HOSPITAL.

HYDROCELE WITH THICKENED AND INELASTIC SAC.—IODINE INJECTIONS, AND USE OF THE AIR COMPRESSOR.—RECOVERY.

[Under the care of Mr. DE MORGAN.]

THE subject of this case was a labouring man in middle life, who had for several years been troubled with a large hydrocele on the left side. Before admission it had been repeatedly tapped, and, on one occasion, injected in the usual way with the iodine solution. The operation, however, for causes about to be alluded to, failed. A few days after admission, Mr. De Morgan again used the trocar, and found, that after a certain quantity of fluid had flowed out, there did not appear to be sufficient contractile power in the walls of the cavity to expel the remainder. He accordingly squeezed as much out as was easily practicable, and injected tincture of iodine, once diluted, into the sac. This produced considerable irritation; but the walls being rigid, and thus kept at a considerable distance from the surface of the contained testis, the desired adhesions between the two were not formed, and after the lapse of a few weeks the part was just in the same condition as prior to the operation. A second injection was now performed, and the *pure* tincture of iodine used, but with the same want of success as before. Mr. De Morgan now decided to try the plan of affording artificial support to the relaxed parts, thus hoping to be able to insure sufficiently close contact between the testis and the lining membrane of its serous investment. To accomplish this, he selected the "air-compressor" lately introduced into practice by Mr. Hutchinson.(a) An apparatus of this kind having been got into readiness, the operation of tapping was again performed, and with much difficulty the sac was nearly emptied of its contents, for so little tendency had the sides to contract, that, immediately the pressure of the hands was removed, they re-distended, like an elastic bottle, drawing in air through the canula. The pure tincture of iodine was again used as an injection, and as much pressure was afterwards kept up by the air compressor as the patient could bear. The compression was persevered in for nearly a week, when it was laid aside, on account of inflammation and excoriation of the scrotum. Enough had, however, been done to effect the cure of the hydrocele. The testicle had, it appeared, participated in the inflammation, as it remained for some little time enlarged and tender. When the man left the hospital, it was, however, but very little larger than the opposite one. No further effusion had taken place, and the disease was apparently permanently cured. Mr. De Morgan remarked, that he had seen cases in which the sacs were quite as thick as in this one, but in which, notwithstanding, perfect contraction took place. He was, therefore, inclined to believe, that the difficulty experienced in its treatment was rather to be laid to the account of some peculiar loss of elasticity in the structures, than simply to their thickened condition.

(a) See *Medical Times and Gazette*, for February 20, 1853, page 218.

ROYAL LONDON OPHTHALMIC HOSPITAL.

PARTIAL OPACITY OF THE LENS PRODUCING THE SYMPTOMS OF SHORT SIGHT.

[Under the care of Mr. DIXON.]

A form of cataract is occasionally met with in which the opacity amounts to no more than a faint haziness, uniformly diffused throughout the lens. An opacity of this kind will escape any but the closest and most practised observation, and the subject of it will probably be regarded as incurably "short-sighted." Glasses afford little, if any, assistance in such cases, and the patient, therefore, remains unfitted for most of the ordinary employments of life.

A well-marked instance of this affection has lately been under the care of Mr. Dixon. The case is further noticeable for the rapidity with which the lenses became absorbed when broken up with the needle, and the excellent sight and healthy appearance of the eyes, after the completion of the cure.

John B., a fine boy of 13, was brought to the hospital in March, 1852, in consequence of "extreme shortness of sight." He could read small type at a distance of three or four inches, but could not distinguish the features of persons a few feet off. He had tried various kinds of concave glasses without benefit. The eyes looked bright and healthy, the irides were very active, and there were no irregular movements of the globes. On looking attentively at the pupils, Mr. Dixon observed that they had not the deep blackness which might be expected in a lad of thirteen; and yet they could not be termed "grey" or "milky." Atropine was applied, and then, under concentrated light, each lens was seen to be faintly streaked throughout its whole extent with fine lines, except the extreme margin, which retained its transparency. The lad was to be employed in a counting-house, but his limited range of vision rendered the pursuance of such an occupation almost impracticable.

Keratonyxis was performed on the right eye March 12th. By the 7th of May absorption of the lens was complete. A central opening was then made in the opaque capsule, to such an extent as to leave the pupil perfectly clear. The contractility of the iris and roundness of the pupil remained unimpaired.

The needle was used to the left eye on the 20th of August, and again about two months later. These two operations procured the entire absorption of the lens. The patient returned to the hospital early in the present year, and then the pupil was cleared of capsule by an operation similar to that which had been performed on the other eye, a mere ring of that membrane being left, which was completely hidden by the iris in the ordinary state of the pupil. With moderately convex glasses the lad is now able to go through the usual routine of a counting-house with perfect ease.

FLUID CATARACT.—PUNCTURE OF CAPSULE, AND IMMEDIATE REMOVAL OF THE FLUID FROM THE ANTERIOR CHAMBER.

[Under the care of Mr. DIXON.]

Mary Ann R., aged 22, applied at the hospital with cataract in the left eye. No defect of sight had been noticed till she was six or seven years old, at which time her mother observed "a speck" in the left pupil. Of late years this has been getting whiter and more evident. When she was brought to the hospital, in April, 1853, the appearance of the lens was milky, with a faint, bluish cast, and irregularly mottled with chalky-white patches. The iris was very active, and there was good perception of light. The right eye was in all respects healthy. Mr. Dixon expressed a belief, that the lens had undergone that gradual process of disintegration and softening which reduces a cataract to a fluid state. He performed keratonyxis on the 22nd of April, and, as soon as the capsule was lacerated, its fluid contents escaped, and rendered the aqueous humour turbid. Mr. Dixon has recently published some remarks

on the good effect of immediately evacuating the effused fluid in cases of this kind, as a means of preventing the distressing nausea and vomiting which occur when the fluid is allowed to remain in the anterior chamber.(a) This treatment was pursued in the present instance, a broad cutting needle having been introduced through the cornea, at the spot whence the cataract-needle had been withdrawn; was rotated, so as to make the wound gape a little, and the whole of the liquified lens ran out with the aqueous humour. Towards evening, the patient had a slight feeling of sickness, but this lasted for a short time only, and she slept well. In the morning, she had again a little nausea, which soon passed off, and did not return.

On May 20th, Mr. Dixon tore up the capsule, to such an extent, as to leave the pupillary space perfectly free, and excellent vision has resulted.

ST. BARTHOLOMEW'S HOSPITAL.

MR. LLOYD'S NEW LITHOTOMY OPERATION.

We are watching with great interest the progress of two cases in which Mr. Lloyd has performed a new operation for the extraction of stone from the bladder. It would be altogether premature to report them at present; but, as soon as they are concluded, we shall hasten to bring them *in extenso* before our readers. We may state, however, that the operation consists in cutting into the rectum from the median line of the perinæum, thus freely dividing the anterior commissure of the sphincter ani. From this external incision, Mr. Lloyd dissects upwards, still keeping in the median line, to the membranous urethra, which is slit up as far as the edge of the prostate, the knife being guided by a previously-introduced staff. The prostatic urethra is lastly dilated until of sufficient size to allow of the introduction of the forceps and the extraction of the stone. Neither the bladder nor the prostate is in any way wounded. Mr. Lloyd performed the operation on two boys on the same day; and in each case with considerable ease. The patients have thus far progressed remarkably favourably.

BLOOMSBURY DISPENSARY.

PHLEGMONOUS ERYSIPELAS OF THE RIGHT ARM, ACCOMPANIED BY ACUTE BRONCHITIS.

[Under the care of Mr. GEORGE L. COOPER, F.R.C.S.E.]

January 30, 1853.—I was requested to visit William Bennett, an out-patient, aged 50, married, by occupation a cab-cleaner. He stated, that formerly he was a seaman, and had endured many hardships, but has left the service ten years. His temperament sanguineous, constitution much injured by exposure to foreign climates, and depressing agents in this city. His habits have been irregular, and has frequently taken large quantities of ardent spirits. I found him in bed, suffering from intense dyspnœa; cough; expectoration very scanty; his voice scarcely audible; tongue thickly coated with a dark brown fur; his countenance depressed and anxious; pulse 100; weak, wiry, and intermittent. On a deep inspiration being taken, he complained of much pain in the chest, cough being excited by the action; with a sense of "a heavy weight" on his breathing. On percussion, the sound was duller than natural; on auscultation, sibilant rhonchi were evident. The right arm was enormously swollen; red, with bullæ on its surface; hot and throbbing. On handling the limb, it felt crackling and boggy throughout, with a dark circular slough on the dorsum of the hand, which was very œdematous. The general appearance of the arm indicated its being twice, or more, in size than in its healthy state. The skin over his body hot and dry; urine scanty and ammoniacal; thirst very great; bowels have been opened.—Ordered:

℞ Empl. canth. ad epigast.

℞ Infus. cascar. ℥ vii., magnes. sulph. ℥ ss. vin. ipecac., spir., æth. nitr., aa. ℥j. M., ii. cochl. ampl. omnibus 4tis horis.

℞ Hydr. chlorid. gr. ij., pulv. ipecac. comp. gr. v. Fiat pulv. horâ somni sumend.

Free incisions were made in the arm; the limb to be enveloped afterwards in a linseed poultice. Diet, milk and beef-tea, at short intervals.

31st.—He has passed a tolerable night, but complains much of his chest and the cough. Dyspnœa still very great. He thinks the blister has benefitted him considerably; he expectorates also rather freer, but yet scanty; tongue dark and dry; the bowels have been well relieved; thirst very great; pulse 96, weak and labouring. The arm is much swollen, boggy, and indicates sloughing to a great extent. Incisions were now made deeper, and more extensive.—Ordered, Mist. repetenda; pulv. ipecac. comp. gr. x. h. s.

February 1st.—Feels very comfortable, and has had some sleep in the night; cough is still troublesome, but the dyspnœa is better. He expectorates looser; bowels have been opened; pulse 100, and labouring. The arm is improving. Mist. et pulv. h. s. repetenda. Diet, beef-tea, milk, and eggs.

3rd.—His voice is very weak; has slept badly; the cough is very frequent, and expectoration getting abundant. The arm discharges freely; he complains of great prostration, and is getting desponding; pulse 95, and intermittent.

℞ Ammon. sesquicarb. ℈ss., inf. cascar. ℥viii. M., ii. cochl. ampl. ter die sumend.; pulv. ipecac. gr. x. o. n. Diet, to have a mutton chop, and half a pint of porter.

February 4th.—Is much better; he has had an excellent night, and the cough is easier; the tongue dark, but is improving; pulse 90, and fuller; no headache; thirst continues very great; bowels have been opened; the arm is discharging profusely.—Ordered, Mist. repetenda; pulv. h. s.; catapl. lini repetendum. Diet, meat and a pint of porter. From this period he progressed favourably. On the 17th the arm was bandaged, the cough is almost gone, and his strength gradually returning.

March 4th.—Cured.

Remarks.—The above case is interesting, in showing the occurrence of an acute inflammatory disease in a dilapidated constitution, while the vital powers are brought to so low an ebb as is evidenced by the gangrenous state of the arm. In the first instance my suspicions were directed towards the heart, as the original seat of mischief; but the subsequent symptoms proved that the lungs were more than sympathisers in any morbid action of that organ. It is by no means uncommon to witness pneumonia after severe operations; but I believe it is rare, when the system is so depressed by natural causes, or, in other words, by a co-existing disease of a low and atonic character. The treatment must, of course, in the early stage, be of a combined form; but the antiphlogistic should be laid aside as speedily as possible, and the system supported by tonics, ammonia, and a liberal diet.

A SEVERE BURN ON THE NECK AND FACE, FOLLOWED BY HÆMORRHAGE FROM THE INFERIOR LABIAL ARTERY.

March 18, 1853.—I was requested to visit Ann Ryan, aged 78, an out-patient, in consequence of her clothes taking fire. The neck and face were much burnt, and her condition, on my arrival, was bordering on collapse; the pulse scarcely perceptible; her mind wandering with a low muttering. Ordered a stimulant to be given directly, and the following mixture every four hours.

℞ Liq. ammon. acet. ℥j.; ammon. sesquicarb. ℈j.; mist. camph. ℥vii.; M., ii. cochl. ampl. 4tis horis.

℞ Olei lini, aq. calcis; ft. linimentum, parti ustæ.

Diet.—Beef-tea, and milk at short intervals.

19th, 20th, and 21st.—Is going on very well.

23rd.—The burn is progressing favourably, but complains of a bad cough. Ordered

℞ Tinct. camph. comp. ℥iv.; scillæ oxymel. ℥j.; inf. cascar. ℥viss.; M., ii. cochl. ampl., 4tis horis; lin. repetend. parti affectæ.

27th.—On visiting her to-day, I found she had got out of bed in the night, and covered her face with flour (a favourite remedy with some). The features were much swollen and disfigured, with a thick crust on the surface. Mist. repetend.; omitte lin.

April 2.—I was sent for in a great hurry at ten a.m. Hæmorrhage to a considerable extent having occurred since three o'clock a.m., the bed and the floor being saturated with blood. On removing a thick crust of flour, secretion, and blood, hæmorrhage from the inferior coronary artery returned, the blood being jetted to a considerable distance in the room, and requiring compression with the forefinger and thumb for some time before the bleeding could be effectually stopped. Ordered cold applications to the mouth, and the ammonia mixture to be repeated.

2nd, 3rd, and 4th.—Has gone on well. Omnia repetenda.

5th.—Catapl. panis ad faciem. Mist. repetend.

20th.—Cured.

Remarks.—The complication of hæmorrhage from an injured part, either by incision, contusion, or any direct violence, is commonly met with; but the well-known resistance to the process of ulceration or sloughing which the coats of an artery manifest, renders the hæmorrhage in this case a point of practical interest, and, furthermore, leads us to the important charge of anticipating such results. The common treatment of burns by the application of flour, although supported by high authority, does not accord with my experience, having found it objectionable on the grounds

(a) The *Lancet*, Feb. 26, 1853.

of uncleanliness, and acting as a curtain to blind us in the course of the treatment. The patient whose case I have related was at the advanced age of 78 years, which circumstance, considering the severe shock to her system received in the first instance, and, subsequently, by so great a loss of blood, is calculated to support us in similar instances, and to induce us to adhere to the favourite motto —"Nil desperandum."

Medical Times & Gazette.

SATURDAY, JUNE 18.

EXAMINATIONS FOR DEGREES IN MEDICINE AT THE UNIVERSITY OF LONDON.

There is this advantage attending a written over a *vivâ voce* examination for University honours,—that if the nature of the questions, the class of students who offer themselves as candidates, and the proportion the rejected bear to those who pass, be respectively considered, a just estimate may be formed of the value of the degree conferred. It is because the questions propounded to the candidates for degrees at the University of London are published, that we are enabled to feel that, as a whole, they are well fitted to test the student's knowledge of the several subjects on which he is examined; it is because we know that the picked men of the London schools only present themselves at that University as candidates for its degrees, and that, of these selected few, a large proportion are, when weighed, found to be wanting, that the Medical degrees of the University of London occupy their present high position in professional and public estimation. Granting, however, after having taken the three points, to which we have adverted, into consideration, that the Medical degrees bestowed by the University of London have deservedly attained their present enviable position, we cannot shut our eyes to the fact, that some of the Examiners appear to have occasionally lost sight of the subject on which they were appointed to examine, and have, as though their own subjects were not extensive enough for their powers, endeavoured to probe the student's acquirements in other departments of science; nor that others propose questions of such a nature, that it is physically impossible for the student to answer them in the time assigned to him for that purpose; so that, in the latter case, supposing two students to be nearly equal in knowledge, the quickest penman must win the race, and sometimes even the inferior man may, through the fault of the Examiner in setting his examination paper, bear off the prize. We shall illustrate our position by reference to some of the papers set at the first examination for the degree of M.B. during the last few years. Dr. Pereira had, unquestionably, the most profound knowledge of the subjects on which he was appointed to examine, of any man in the United Kingdom; and yet, we think he failed in some degree as an Examiner. The subjects assigned to him were Materia Medica and Pharmacy; the candidates he was to examine were students of Medicine of one or two years' standing. The Senate of the University very wisely defers the candidate's examination in Therapeutics for two years after his examination in Materia Medica and Pharmacy; that is, till such time as he shall have acquired some knowledge practically of his Profession. And yet, what was Dr. Pereira's practice? This: to load his paper with therapeutical questions, which questions were, very properly, on some occasions, even, repeated by the Examiners in Therapeutics, at the final examination for the degree of M.B. Thus we find, in August, 1848, among the questions in Materia Medica and Pharmacy, the following:—"What are the general uses to which the different orders of cathartics are respectively applicable?"—a question clearly foreign to the subjects of Materia Medica and Pharmacy, and proper to the subject of Therapeutics; and therefore we are not surprised, in November of the same year, to find the Examiners in Therapeutics asking a question in regard of cathartics having the same scope. But, to come nearer to the present time. Among the questions in Materia Medica and Pharmacy for 1852, we find the following:—"Describe the medicinal effects and uses of atropa belladonna. Give a sketch of the properties and uses of atropia, and its sulphate. The effects and uses of liquor arsenici chloridi, syrupus ferri iodidi, tinctura lobeliæ ætherea, tinctura quinæ composita, tinctura conii." Now, we maintain that these questions, in regard of uses and medicinal effects, are questions on Therapeutics, and not questions that the Examiner in Materia Medica and Pharmacy ought to propound to candidates; they are questions that the student, who has not attended one or more courses on the practice of Medicine, cannot be expected to answer; and they are questions, for declining to answer which to the Examiner in Materia Medica and Pharmacy, we hold that no candidate ought to be rejected.

But while thus the Examiner in Materia Medica and Pharmacy questions the candidate on subjects which properly pertain to the Examiner in Therapeutics, we find the Examiner in Chemistry framing some of his questions so as to test the student's knowledge in Materia Medica and Pharmacy Thus we find Professor Brande asking the candidate to "describe the modes of preparing the compounds of iron and copper contained in the London Pharmacopœia," and to state the components of opium, and the mode of preparing morphine and its principal salts; and then, rushing to the extremes of his own science, he asks candidates for a degree in Medicine to give directions for the *quantitative analysis* of the alloys of copper used in the arts!

As an example of the other error, into which some of the Examiners at the University of London have fallen, we may point to the papers set by the learned Examiner in Physiology and Comparative Anatomy; and we would seriously ask him: "Could he answer, between ten and one, (Salisbury-clock time,) the questions he propounded on November 3, 1852?"

THE MEDICAL BENEVOLENT COLLEGE.

The friends of this excellent Institution, throughout the country, will be happy to learn, that arrangements have now been definitively made for the first great step in its progress, and that the foundation-stone of the new building will be laid on Wednesday, the 6th of July next. In order to give the greatest dignity and solemnity to this important event, the Consort of Royalty has been graciously pleased to signify his intention of taking the chief part on the occasion. The President of the College of Physicians, the President of the College of Surgeons, and the Master of the Apothecaries' Society, have also been invited to attend; and we cannot doubt that these distinguished functionaries will gladly avail themselves of the opportunity of showing their respect to His Royal Highness by being present at this inauguration of a project designed for the benefit of every class and grade of our common Profession.

Ushered into existence under such favourable auspices, the ultimate success of the proposed Institution can hardly

be doubted; and we cannot but feel most deeply the compliment paid to our noble calling by the patronage of Royalty being extended to this benevolent undertaking.

Although the plan of the Medical Benevolent College has now been long before the notice of our Professional brethren, yet we believe, that a further allusion to the objects of its founder will not be unacceptable to our readers, nor unseasonable at the present period.

The design of this Institution is three-fold: first, to establish a school where the sons of medical men may receive a superior education at a moderate expense; secondly, to provide an asylum for those members of our Profession who have descended into the vale of years without having been able to secure for themselves the means of support in their declining age, and to extend the same advantage to their widows; and, thirdly, to provide a fund for those decayed members of our body, and their widows, who may be unwilling or unable to avail themselves of the advantages offered by the Asylum.

To expatiate upon the importance of these three great objects, is almost unnecessary; and it would be especially superfluous when addressing the members of our Profession, who are, more than any other class of men, liable to the painful vicissitudes of life, to poverty, disease, and untimely death. The Medical Benevolent College embraces the two extremes of Professional existence: it will provide a competent and gentlemanly education to the sons of our Professional brethren, who are often sorely pinched, under present circumstances, in providing efficient instruction to their offspring; and, on the other hand, it will extend its hospitable roof or its pecuniary aid to those who have been broken down in health and in fortune during the arduous struggle for existence, or to the widows of those who have passed away from this mortal scene.

It is gratifying to observe, how great has been the unanimity and the cordiality already evinced in the execution of this praiseworthy design; and from every part of the country have the appeals for support been met with cheerfulness and alacrity. Several local societies are already beginning to evince a disposition to throw the weight of their influence and of their funds into the new cause; and, in particular, the Surrey Medical Benevolent Society, preferring the interests of the many to those of the few, has liberally contributed 2,500*l.* towards the erection and endowment of Mr. Propert's College. We trust, that this spirit of co-operation will still continue to exist and to extend, and that, as heretofore, we shall find adherents to the cause pouring in from all quarters.

Unhappily, our Profession is not a rich one; the prizes drawn by its members are few and far between,—the blanks are numerous and appalling; and it is from the struggles which embitter the hours of early medical life, and from the sorrows which too often accompany and overshadow its close, that the necessity for this College has arisen. But still, there are many in our ranks to whom the pursuit of medical practice has been a source of well-deserved wealth and honour; and there are very many who have retired with a competence from the arena of active exertion: it is to be hoped, that both these classes will be mindful of the ladder by which they have ascended to the eminence which is coveted by all, but is reached by few; and that they will zealously support an Institution destined for the support of their poorer and more unfortunate brethren.

To the great mass of practitioners who are now deriving an income, often inadequate and always precarious, from their professional exertions, we would appeal, on more selfish and personal grounds; for the sake of their children, who may be educated efficiently, yet on moderate terms, at the Collegiate school; for themselves, in order to secure a retreat from the struggles of the world, when overtaken by age; for their widows, that they may feel comforted by the reflection, that a home is provided for their reception, or a fund for their maintenance, when Providence has deprived them for ever of the partners of their sorrows and their joys. The present age is characterised by extensive benevolence,—a benevolence not confined to our own shores, but expanding itself towards the wretched of every denomination and of every country under heaven; and, without detracting from any of those humane exertions which are daily and hourly made on behalf of suffering humanity at home and abroad, we may appeal with confidence in favour of the Medical Benevolent College, as an Institution peculiarly calling for the support of our Profession, and of all those whose sympathies are capable of being aroused by the claims of their suffering fellow-creatures.

NAVAL MEDICAL OFFICERS.

We have great pleasure in drawing the attention of the Profession to a Petition to the House of Commons in behalf of the Medical Officers of the Royal Navy. We are sure the members of the Profession will not hesitate to sign this Petition in favour of a class of officers, of whom the immortal hero of Trafalgar expressed himself in the following high terms, when writing to his friend Dr. Baird, respecting Mr. Magrath, the Surgeon to his ship, whom, said Lord Nelson, "I admire for his great abilities every day I live; but," added His Lordship, "we must lose such men from our service, if the army goes on encouraging Medical men, while *we* do nothing. I am sure much ought to be done for our Naval Surgeons, or how can we expect to keep valuable men? I look to you not only to propose it, but to enforce it to Lord St. Vincent, who must be anxious to preserve such a valuable set of men to the Navy." To show how singularly prophetic this statement is, we may add, that, at the present moment, only two candidates' names are entered for an appointment in the Royal Navy; and, moreover, not one of the retiring students of Human and Comparative Anatomy of the Royal College of Surgeons has yet been found to accept an appointment in a service, in which, as in a recent case, the valet of an Ambassador is considered to be the superior man. We should like to compare the candidates' book of Sir William Burnett with that of the late Alderman Sir John Pirrie, the Chairman of the Oriental and Peninsular Steam Navigation Company. When we saw the latter, it contained the names of ten times as many applicants for service as were then recorded in the former.

However, the time has now arrived when something must be done, and that speedily, for all classes of the Naval Medical Profession. With this object in view, we would suggest, that Petitions be sent in from all the large provincial towns, numerously signed, and that the influential members of the Profession should at once place themselves in communication with their Parliamentary representatives, and urge them, not only to present the Petitions, but to advocate the claims of the gentlemen forming this important branch of the Naval Service of the country. They will not be single-handed in the advocacy; for Mr. Montague Chambers, one of the Members for Greenwich, and Mr. Michell, the Member for Bodmin, have stated, that they are ready to do all in their power

to promote the object in view. The Medical men of Edinburgh, Glasgow, Belfast, Swansea, Bath, etc., are already at work on the subject.

In conclusion, we may inform our Naval and other friends, who are willing to assist in this good cause, that a Petition is in charge of Mr. T. M. Stone, of the Royal College of Surgeons, for signature.

PARLIAMENTARY INTELLIGENCE.

NATIVE TALENT IN INDIA.

House of Lords.—On Monday, in the debate on India, Lord Monteagle said: He wished to know whether the benefits of free competition would be extended to the natives of India as well as to the inhabitants of England. Would, for instance, a medical student, being the Queen's subject, born at Calcutta, and being duly qualified, be admitted to free competition for a medical appointment, as well as persons born in Europe?

Earl Granville should say, that natives of India, if competent to pass examination, would be entitled to the same advantages as persons born in Europe.

GREAT EXTRAMURAL CEMETERY ASSOCIATION BILL.

On Tuesday, this Bill was read a second time.

HACKNEY CARRIAGES (METROPOLIS) BILL.

The report of Amendments upon this Bill was brought up.

Earl Waldegrave moved the omission of the 15th Clause, which provided that it should not be lawful for any proprietor or driver knowingly to carry any person suffering from any infectious or contagious disease. He feared it would lead to great inconvenience in many cases.

Lord Stanley of Alderley said, that the Government had introduced the Clause in compliance with numerous representations that had been made to them with regard to the danger which was occasioned to the public health by cabs carrying about persons suffering from contagious diseases.

The Earl of Derby remarked, that the Clause had, doubtless, been introduced with a very laudable object; but he doubted whether it would not lead to many cases of hardship and cruelty. He, therefore, suggested that the Government should withdraw it, and endeavour to make some more fitting provision for the object they had in view.

Lord Campbell, as one of Her Majesty's judges, begged to observe, that, if they passed the Clause, it would be difficult to find out what were infectious diseases. If the question were to come before the judges, he suspected that seven of them might be found on one side, and eight on the other. Some people said there was no such thing as infectious diseases. How was it intended that the question should be decided? Was it to be decided by a jury, or how? (Hear.)

Lord Stanley of Alderley said he should withdraw the Clause.

House of Commons.—On Thursday, June 9, Petitions were presented by Lord Goderich, from the members of the Medical Profession residing in Huddersfield and its vicinity, in favour of Medical Reform; by Mr. J. D. Fitzgerald, from the Guardians of the Kilrush Union, praying that Medical officers for poor relief should be paid by the State; by Mr. Brady, from the Chairman, Vice-Chairman, and Deputy Vice-Chairman of the Carrick-on-Shannon Board of Guardians, in favour of an alteration in the mode of paying medical officers under the Medical Charities Act of Ireland; by Mr. Bright, from Newton-heath, Manchester, against the introduction of the Board of Health.

NATIVE TALENT IN INDIA.

Mr. Blackett, in the course of his speech on the Government of India, said:—"But the civil and military services were not the only branches of the covenanted service of India to which the natives wished to obtain access. In 1844, Dwarkanauth Tagore sent over some native young men of ability to be educated in England, so that they might be competent to hold office in India. One of them, Mr., afterwards Dr. Chuckerbutty, attained the highest distinction as a medical student in this country, and Mr. Cameron and Sir E. Ryan addressed a letter to the Court of Directors, requesting them to nominate him to a situation in the covenanted Medical service. One might have supposed, remembering the liberal views of Parliament on this subject, that the Directors would have gladly availed themselves of this loophole, to show the natives of India that they were not permanently excluded from office, The Court of Directors evaded giving a reply to the application to appoint Dr. Chuckerbutty to the covenanted service; but they sent back word, that they had appointed him to a situation of equal, if not superior value, to the uncovenanted service."

On Friday, June 10, a Petition was presented by Mr. M'Cann, from the Poor-law Guardians of the Drogheda Union, for alterations in the mode of paying medical officers under the Medical Charities Bill.

MEDICAL OFFICERS (IRELAND).

Mr. Brady asked the Chief Secretary for Ireland if it was his intention to make any alteration in the present mode by which Medical officers were paid under the Medical Charities Act of Ireland since the taxation of Ireland had been increased; if he had any intention of altering or increasing the Medical districts under the Medical Charities Act of Ireland; and if he had any intention of altering or increasing the Medical officers' salaries under the Medical Charities Act of Ireland?

Sir J. Young said, he was unable to answer the first question. The hon. Member must ask the Chancellor of the Exchequer. As to the second question, all he could state was, that the report of the Commissioners showed that progress was being made in carrying out the formation of Medical districts in Ireland; and as to the third question, relating to salaries, that was a matter which depended upon the Local Board.

On Monday, June 13, Petitions were presented by Mr. Alcock, from Medical practitioners of Croydon, to amend the law for the better regulation of the practice of medicine and surgery; by the Earl of Annesley, from the members of the Medical Profession of Great Grimsby, in the county of Lincoln, praying for measures for the better regulation of the Medical Profession.

On Tuesday, Petitions were presented by Mr. Heywood, from the members of the Medical Profession in Burnley, for an amendment of the law respecting medicine; by Sir J. Shelley, from members of the Medical Profession, praying the House to pass measures for the regulation of the Medical Profession; by Mr. F. Scully, from the Cashel Board of Guardians, praying that the salaries of the medical officers may be paid out of the Consolidated Fund; by Mr. Crossley, from members of the Medical Profession at Halifax, praying for better regulations with regard to the Medical Profession.

PROPOSED MEDICAL SOCIETY FOR THE NORTHERN DISTRICTS OF THE METROPOLIS.

At a meeting of members of the Medical Profession, held at the Collegiate School-rooms, High-street, Camden-town, on the 11th of June, 1853, Charles Tunaley, Esq., in the chair, the following Resolutions were passed unanimously:—

Proposed by Dr. Ridge; seconded by Dr. Ballard; and carried unanimously:—

"That, it being the opinion of this meeting that a Society of Practitioners of Medicine is needed, the place of assembly of which should be of ready access for residents in the northern portion of the Metropolis and its suburbs, be it therefore resolved, that a Society for the discussion of subjects connected with Medical science be established, to be called 'The North London Medical and Surgical Society.'"

Proposed by Mr. Greenhalgh; seconded by Dr. Hare; and carried unanimously:—

"That the following gentlemen, William Sharpey, M.D., F.R.S.; Edward Ballard, M.D.; John Marshall, Esq.; Joseph Blackstone, Esq.; William Jenner, M.D.; Samuel Sandys, Esq.; Richard Quain, Esq.; James Part, Esq.; Charles Tunaley, Esq.; Nathaniel Wetherell, Esq.; Stephen Alford, Esq.; William Adams, Esq.; Richard Quain, M.D.; Joseph S. Baly, Esq.; Henry Armstrong Rawlins, Esq.; George Bernningham, Esq.; Joseph Ridge, M.D.; J. Dommett Bishop, Esq.; Henry Charles Robinson, Esq.; Edward Cousins, Esq.; John Scott, Esq.; Maurice Davis, M.D.; Charles Smith, Esq.; Donald Frazer,

M.D.; W. G. Sheppard, Esq.; Charles J. Hare, M.D.; Leonard Goddard, Esq.; William Henry Holman, Esq.; Frederick Toulmin, Esq.; John R. Pretty, Esq.; Francis Toulmin, Esq.; be requested to constitute a Committee of the Society, with power to add to their number; to determine upon the future place of meeting of the Society; to draw up the general laws and regulations; and to submit them for approval at the next ensuing meeting of the Society."

Proposed by William Jeffrays, Esq.; and seconded by William Hainworth, Esq.:—

"That the meeting do now adjourn till Saturday, July 9th, to receive the Report of the Committee."

Proposed by Dr. Ballard; seconded by J. R. Pretty, Esq.; and supported by Robert Greenhalgh, Esq.:—

"That the Committee immediately send a Report to every qualified Practitioner residing in the districts of Camden-town, Kentish-town, Hampstead, Highgate, Islington, St. John's-wood, Clerkenwell, Hackney, Kingsland, and Bow, requesting their co-operation; and that an Advertisement be placed in the Medical Journals."

Proposed by William Hainworth, Esq.; and seconded by Stephen Alford, Esq.:—

"That the thanks of this meeting be given to Edward Cousins, Esq., for his exertions in promoting the establishment of this Society; and that he, together with William Adams, Esq., be requested to act as Provisional Secretaries, this meeting undertaking to guarantee all preliminary expenses."

Proposed by William Adams, Esq.; and seconded by Dr. Ballard:—

"That the thanks of this meeting be given to Charles Tunaley, Esq., for his kindness in presiding on the present occasion."

CHARING-CROSS HOSPITAL.

[To the Editor of the Medical Times and Gazette.]

Sir,—I beg to enclose the whole of the late proceedings of the students of this hospital with Dr. Smith and the Medical Committee, in the hope that you may give them publicity,—knowing that you are a friend to the students, and take always the weaker side.

I am, Sir, your obedient servant,
J. E. Adkins, M.R.C.S.E., Secretary.

Charing-cross Hospital, June 14, 1853.

The first steps taken by the students, in reference to Dr. Smith and his subsequent dealings with the Medical Committee, were at a meeting held in the theatre of the Hospital on March 24th, when the following Resolution was passed:—

"That a Deputation of the students wait upon Dr. Smith, requesting him to use his influence with the Medical Committee, in obtaining the appointment of a qualified Demonstrator for the next winter session, it being considered by the meeting, that the duties of Demonstrator and Lecturer involve too much labour to be efficiently discharged by the same gentleman; but, at the same time, the continued exertions of Dr. Smith during the past session are fully recognised."

Two gentlemen were then appointed to wait upon Dr. Smith, to explain to him the nature of the above Resolution, and Dr. Smith took a copy of the original Minutes. They were informed, that Dr. Smith entirely concurred in their views, and promised every assistance in his power, and that he had reason to believe that the Medical Committee also concurred with them; and that the only difficulty was, the arrangement as to the source whence the emoluments of a qualified Demonstrator were to be derived.

The students then left town for the vacation, but, on April 8, the House-Surgeon and two of the students were called upon to give evidence before the Medical Committee of the Institution. The questions put to each, separately and alone, were similar, namely: "Does Dr. Smith make errors while lecturing? Does he lecture from notes? Is his attendance in the dissecting-room frequent? Can you learn as much from Dr. Smith as from Mr. Canton?"

On this occasion one of those examined saw the Minutes of the meeting of students, of March 24th, lying upon the table, containing the names of the students who had taken a prominent part in the meeting; and as it was not intended that those Resolutions should be sent to the Medical Committee, and as it was feared that some of the students would become marked men, it gave rise to much dissatisfaction. It was evident that a breach of confidence had been committed by some of the parties into whose hands the Resolutions of the meeting of March 24th had been committed.

On the return of the students for the Summer Session, it was determined to call a meeting, and seek an explanation of this circumstance; and a meeting was held in the theatre, on May 18th, Mr. Simpson in the chair, when, after hearing Mr. Simpson's explanation, it was resolved unanimously:—

"1st. That Dr. Smith be requested to meet the students of the Charing-cross Hospital, to explain how the copy of the Resolutions passed by them, at a meeting held March 24th, got into the hands of the Medical Committee, with a view to an explanation of the feelings of the students upon the subject of those Resolutions:—

"2nd. That a copy of the foregoing Resolution be sent by post to Dr. Smith, requesting him to appoint a time and place to meet the students (suggesting Saturday next, at 3 o'clock.)

"3rd. That this meeting be adjourned till Dr. Smith's explanation has been received."

In reply, Dr. Smith forwarded by post the following letter, appointing the Freemasons' Tavern as the place of meeting:—

"May 19th, 1853.

"Dear Sir,—I am favoured with your letter of May 17, containing a copy of a Resolution passed at a meeting of the students of Charing-cross Hospital, in which I am requested to meet the students, to explain certain and specified matters. The meeting left to me the arrangement of the place, day, and hour, of the proposed meeting; but you have kindly intimated, that Saturday next, at 3 p.m., would be convenient for the students. I shall have much pleasure in acceding to the wishes of the students, to meet them at the Freemasons' Tavern, Great Queen-street, on Saturday next, at 3 p.m. "Yours very truly,

"E. Smith.

"Thomas Simpson, Esq., Chairman."

A meeting of the students was, therefore, held at the Freemasons' Tavern, on the 21st of May, when Dr. Smith attended, and explained the mode by which the Medical Committee had become possessed of the Resolutions of the meeting of the 24th of March.

He read several letters which had passed between himself and Dr. Chowne, dated from April 2nd to May 20th, which showed that he had forwarded a copy of the Minutes to Dr. Chowne, with the reservation, that it was not to the Medical Committee, but to Dr. Chowne, as a friend and colleague. Dr. Chowne acknowledged the reservation, but, on April 6th, he requested permission to lay them before the Medical Committee, which, on April 7th, Dr. Smith refused. On April 9th, Dr. Chowne informed Dr. Smith that he had laid them before the Medical Committee. It thus appeared, that Dr. Chowne had handed the Resolution to the Medical Committee, and in opposition to the wishes of Dr. Smith.

It was then put to the meeting, whether Dr. Smith should explain his present relations with the Medical Committee, and, on that being affirmed, Dr. Smith read a very lengthened correspondence which had taken place between himself and the Medical Committee, which showed, that the only complaint against Dr. Smith had been made by an individual student clandestinely, and, on that letter, the Medical Committee had accused Dr. Smith of inefficiency. It also appeared, that the issue was, a notice given by the Medical Committee to Dr. Smith, to cease his functions as our anatomical lecturer, a notice which Dr. Smith declared to be informal and illegal, since no termination to it was mentioned; and therefore Dr. Smith announced his intention to continue his functions the next winter session. It also appeared, that Dr. Smith had vainly endeavoured to obtain from the Medical Committee a copy of the regulations under which he was appointed, so that he might inform himself as to the length of notice agreed on by both parties.

A vote of thanks was then given to Dr. Smith, for his kindness in meeting the students; and it was further unanimously resolved, that a letter be sent to the Medical Committee, requesting them to give the name of the accuser or

accusers of Dr. Smith. The following is a copy of the letter so sent:—

"Charing-cross Hospital, June 2, 1853.

"Gentlemen,—We beg to inform you, that, at a meeting of the students of the Charing-cross Hospital, held at the Freemasons' Tavern, on Saturday last, it was resolved unanimously:—

"'That the Medical Committee be requested to inform the students the name of Dr. Smith's accuser or accusers.'

"As Chairman of that meeting, I feel it my duty to request your attention to the above Resolution; and am directed to acquaint you with the reasons for seeking that information. At the outset, we repudiate the thought of acting in hostility to the Medical Committee; on the contrary, we respect it,—we feel that the interests of the school are of as much importance to us as to it; perhaps, since our characters as medical men will, in a great measure, depend on that of the school in which we were educated, of even greater importance; and, this being the case, we feel that we are only just to ourselves in asking for further particulars, in a matter where the reputation of the school is, to a certain extent, at stake. In the opinion of many of the students, the accusations brought against Dr. Smith, by one or more of our number, were presumptuous and impertinent; even stronger language has been used in reference to this act; and it is but fair to men innocent of the transaction—that those who conducted themselves in a manner which the majority condemn—should be the only ones to bear the odium of their own act. You will admit, that it will be very unfortunate for us if the issue of the correspondence between yourself and Dr. Smith should have any disastrous influence over the conduct of our examiners. If this gentleman be dismissed as incompetent, we fear that, when we present ourselves for examination at the College or Hall, we shall be marked men, destined to a doubly-severe ordeal on this account; and, since it appears from the correspondence we have heard read, that the Medical Committee desired to benefit us by an exchange of Lecturers, and took their first steps in the matter in consequence of some complaints having reached them, we think it fair that we should know what those complaints are, and by whom they were made.

"Awaiting your reply, which we hope to have by Saturday next,

"We are, Gentlemen, your obedient servants,

"T. Simpson, Chairman.

"Joshua E. Adkins, Secretary.

"To the Medical Committee, Charing-cross Hospital."

No answer was received to this letter, and therefore, on June 8, the students held a further meeting in the theatre of the hospital, when the following Resolutions were carried unanimously:—

"That this meeting is of opinion, that the Resolution passed at a meeting of the students of the Charing-cross Hospital, held March 24, was not intended, and ought not to have been sent, to the Medical Committee of that Institution; and, while regretting that it has been so sent, it accepts Dr. Smith's and Mr. Simpson's explanations in respect to themselves.

"That a Memorial be drawn up, circulated among the students for their signatures, and presented to Dr. Smith, the Chairman and Secretary having liberty to alter verbally, but not so as to interfere with the spirit of the following draft:—

"'Sir,—Circumstances having recently occurred, which have led to the severance of your connexion with the Medical School of Charing-cross Hospital, we think we ought to express the regret we feel at so unpleasant and unexpected a termination to your functions as one of our teachers.

"'We wish you distinctly to understand, that we had no part in bringing about these changes, and that we feel no sympathy with them now that they are effected.'

"That a copy of the above Memorial to Dr. Smith be sent to the *Medical Times* and *Lancet*, and advertised.

"That a copy of the Address sent to Dr. Smith be forwarded to the Medical Committee, together with an expression of their regret, that they have neglected to answer their last communication to them.

"Thomas Simpson, Chairman."

REVIEW.

On the Nature and Proximate Cause of Insanity. By James George Davey, M.D. Pp. 77. London: Churchill. 1853.

Dr. Davey is a better Practitioner than he is a metaphysician; in fact, he repudiates metaphysics altogether, speaks with contempt of the "vain speculations and facile inventions," of such men as Berkeley, Leibnitz, and Cousin, and expatiates with rapture on the "imperishable discoveries" of Gall. Yet we seek in vain, throughout Dr. Davey's little work, for any practical confirmation of the views of the great German phrenologist, although we should have imagined, that the large experience of Dr. Davey in the treatment of insanity at home and in the East would have afforded abundant instances in proof of his position. We are told, it is true, that insanity is caused by irritation or morbid sensibility of the grey matter of the brain; but, as the evidence of "morbid sensibility" is not palpable to the scalpel or to the microscope, we do not see how Dr. Davey's theory of the nature and proximate cause of insanity bears at all upon Gall's doctrines. We do not deny, that the cause assigned by Dr. Davey may be the true, if not the only one; we merely suggest, that if it be so, it is just as easy to explain the phenomena of insanity upon the metaphysical system as upon the phrenological. It is generally acknowledged that the brain is the instrument of the mind, and that functional or organic derangements of its structure are usually accompanied by deviations from the normal intellectual state; but the peculiar view adopted by the phrenologists is, that each mental faculty is represented by a separate organ, and, therefore, that each form of derangement of the mind should be denoted by a corresponding physical change in a particular cerebral region. Of this localization of organs, however, Dr. Davey offers no corroborative proof from his experience.

Dr. Davey's views of insanity are, therefore, as may be anticipated, altogether material; and he entirely ignores the influence of psychical agencies on mental alienation; at least, such is the impression conveyed by the perusal of the present work. Dr. Davey considers that the proximate cause of insanity is a morbid sensibility of the grey substance of the brain, but that this morbid condition eventually gives rise to a physical and palpable change in the cerebral structure, as may be observed by dissection. Dr. Davey adduces the cases of 100 patients, whose bodies he examined in the Hanwell Asylum, in proof of his theory; but while admiring his assiduity and his zeal, we do not altogether jump at the same conclusions as he is inclined to do. In point of fact, we doubt whether many of the appearances observed by Dr. Davey are peculiar to insanity at all; and when he tells us, that, in 14 cases, the grey substance was "paler that natural," in 19 it was "darker than natural," in 12 "softer than natural," in 8 "firmer than natural," we should very much like to have the natural condition accurately defined; for unless we are quite sure of the appearances which a healthy brain presents, we are not capable of clearly comprehending its morbid deviations. Again, in 77 cases, where the arachnoid membrane is said to be diseased, in 21 there were effusions on its surface, in 34 it was "more or less opaque," and in 56 there were effusions beneath it; but we are pretty sure, that if Dr. Davey had examined the heads of 100 ordinary pauper patients, he would have found a very large proportion of cases in which all these appearances would be observed, although there might have been no insanity whatever.

Unconvinced as we are by Dr. Davey's psychological tenets, and not wholly agreeing with his pathology, we, nevertheless, cordially approve, in general, of his therapeutical rules; we believe with him, that insanity is more frequently a disease of exhaustion than of plethora; that indiscriminate bleeding and purging are not only in most cases useless, but that in very many they are injurious; and that a generous diet, combined with kind and considerate treatment, mental and bodily employment, and exercise in the open air, are the agencies best calculated to reduce the mortality in our lunatic establishments, and, in many cases, to restore the patients to happiness and health.

GENERAL CORRESPONDENCE.

MR. HUNTER AND GEORGE III.

[To the Editor of the Medical Times and Gazette.]

Sir,—Aa everything relating to John Hunter has an interest with his professional brethren, and I do not remember to have seen the following passage alluded to in any Medical Journal, I transmit it to you, in the hope that it may find a place in your columns. It occurs in "The Memoirs of the Court and Cabinets of George III.," published by the Duke of Buckingham, in a letter from Mr. W. Grenville, (afterwards Lord Grenville) to his brother, the Lord-Lieutenant of Ireland, written during the King's first attack of insanity in 1788, and pending the discussions on the Regency question; and I think you will agree with me, that there is a certain manly-straightforwardness, as well as good sense, in the opinion (the event, too, verified his prediction) which is in keeping with all we know of Mr. Hunter.

Mr. Grenville says, "I was mentioning these circumstances ('the history of the King's case, &c.') yesterday, to a person who lives in intimacy with John Hunter, the anatomist. He told me, that they had been all stated to him three days ago, by Hunter, who had collected them from the different inquiries he had made. Hunter added, that we must still expect for some days, and perhaps even weeks, to hear of no decisive alteration, but possibly of some occasional variation from day to day; that at the end of this, it would probably come to some sort of crisis, by which it would appear whether there was strength enough in the constitution to prevail over the disease; that all he had heard of the manner of the King's life, did, unquestionably, make him an unfavourable subject for such a struggle; but that, if it was the case of any common man, he should have no hesitation in pronouncing, even now, that it would be very bad luck indeed if he did not recover, and that the chances were nine to one in his favour. You will easily suppose, that this was said under the seal of confidence, and that a professional man would not choose to have his name quoted in a case of so much importance, in which he is not employed, and in which his opinions may be either founded at present on false information, or may be defeated by the mode of treatment adopted by those who are called in. I have, therefore, mentioned this only to you, though possibly you may hear of it from other channels. On such authority, one certainly may be allowed to indulge some degree of hope."

The letter will be found in Vol. II., page 5, of the Memoirs; and the Medical details, furnished by other letters of the same eminent correspondent, constitute by no means the least amusing and interesting part of their contents.

I am, &c. C. W. Crowdy, M.D.

Brighton.

COMPULSORY VACCINATION.

[To the Editor of the Medical Times and Gazette.]

Sir,—I am surprised to find, that the principle of compulsory vaccination meets with the approbation of the Manchester Medico-Ethical Association. Surely, the compulsion will much increase whatever prejudice may already exist against the practice. In the district in which I practise, I find indifference to distant danger a much greater impediment than prejudice. I say distant danger, for, during the six years I have practised here, there has been but one case of small-pox in the district, with a population of nearly 5000. Whatever prejudice there is, is more among private patients than the poor.

It would be almost impossible to carry out Lord Lyttelton's Bill in such an extensive and thinly-peopled district as this is. My pauper patients live in scattered villages, from one to eight miles distant, averaging nearly five miles. In winter, with short days and much illness, there is not time to attend to vaccination, without neglecting the sick; in summer, the poor are too busy with agricultural pursuits to be able to attend at the stations—often a mile or more from their home, and two or three miles from their work.

Except in the principle of compulsory vaccination, I agree heartily with the Memorial of the Manchester Medico-Ethical Association; but Mr. Ceely's letter to Lord Palmerston, published in your Number for April 23, is in every respect most excellent.

Nothing has been done for the encouragement of voluntary vaccination. One great obstacle is—ignorance; and I know that great numbers put off having their children vaccinated till they are two, or three, or four years old, thinking it is not well to have it done earlier. Let all those who are being educated for teachers in National, British, or other schools, receive some instruction on the history of small-pox and vaccination, and communicate their knowledge to their pupils. Let a small book or tract, adapted to the use of all classes, be written on the subject; it might be made generally interesting, and published cheap enough to be extensively circulated through the various channels by which tracts and other small publications get into almost every house in the land; and, in a few years, some improvement might be looked for. But to resort to compulsion without having fairly tried persuasion, is an ungentlemanly, coarse, and unenlightened method of proceeding.

I often find it difficult to obtain good matter; and, under Lord Lyttelton's Bill, I must of necessity vaccinate much more frequently than at present, with matter obtained from a distance, and commonly two days old; and, even with matter from my own patients, I must use it very much more frequently than at present, owing to the more scattered stations, and smaller number of cases at each visit. So great would be the additional trouble and travelling under Lord Lyttelton's Bill, and so inevitable the occasional neglect of the sick, in order to carry it out, that I believe the medical practitioners in this town will refuse to take contracts under it. To do so at the present rate of remuneration would be perfectly ridiculous.

If you think these remarks worth insertion in your Journal, by doing so you will oblige Yours, &c.

Hants. A Vaccinator under the Act.

MEDICAL OFFICERS OF ASSURANCE SOCIETIES.

[To the Editor of the Medical Times and Gazette.]

Sir,—On three days of last week—Monday, May 30; Wednesday, June 1; and Friday, June 3—there were 37, 33, and 22 = 92 —advertisements in the *Times* of assurance offices, and this only in one newspaper. I cannot say how many there may have been in others, besides weekly and other publications; in fact, you rarely take up a book, but they stare you in the face. I have not said a word of the provincial press; the expense of this item alone must be enormous; and yet many of them complain that they cannot (*will* not) afford to pay the Medical Profession a paltry fee for their opinion.

Commercially speaking, they are wrong; the Medical Profession, if properly treated, would be their best friends. As a general rule, when the subject of assurance is first mooted in a family, the ordinary medical attendant is admitted to the council.

However, it is now pretty well known which are the paying offices, and they advise accordingly. I take leave to offer a little piece of advice gratis, in the form of a question, to Messrs. ——, the directors of the non-paying offices. When any one calls to make the usual inquiries, and probably to propose an insurance, that they then pay down a preliminary fee of three guineas: one to the insurance office, for their trouble; one to the medical gentleman attached to the Office, and one for the ordinary medical attendant of the insuree. Now, Governors, what do you think? I do not think the insuree would object, and thus all parties would be satisfied. I am, &c. H. V. D.

VACCINE LYMPH.

[To the Editor of the Medical Times and Gazette.]

Sir,—As there is at present a new Vaccination Bill before the public, I think there is a suggestion, with respect to the supply of vaccine lymph to the Profession from the National Vaccine Institution, which would be a great improvement on the manner in which it is at present sent,—the lymph being so dry on the points, that it frequently fails; but, if sent in small glass tubes, contained in a long, narrow box, made of the same material as the common paper pill-boxes, it would be much more certain in its action. A notice of this in your valuable Journal, I think, might be of some use. I am, &c. An Old Subscriber.

Newcastle.

Dublin University Commission.—Among the recommendations which the Commissioners have submitted to Her Majesty, are the following:—"That the provisions of the School of Physic Act, by which Roman Catholics are excluded from the Professorships of Anatomy, Chemistry, and Botany, should be repealed. That the provisions of the School of Physic Act, with respect to clinical education, the election of the King's Professors, and the distribution of the funds of Sir Patrick Dun's estate, should be re-considered."

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Dr. COPLAND, President, in the Chair.

ON THE USE OF TWO NEEDLES AT ONCE IN CERTAIN OPERATIONS ON THE EYE, ESPECIALLY IN THOSE FOR CAPSULAR CATARACT AND ARTIFICIAL PUPIL.

By WILLIAM BOWMAN, F.R.S.,

Fellow of the Royal College of Surgeons, Assistant-Surgeon to the King's College Hospital, and to the Royal London Ophthalmic Hospital, Moorfields.

THE operation consists in the simultaneous employment of two needles introduced at different points through the outer coat, and made to act in concert upon false membranes, opaque capsule, or iris, or even on the lens itself, under certain circumstances. Several advantages attend this mode of operating. Opaque portiuns of capsule are often very tough, and, being attached to the suspensory ligament of the lens, or to the pupillary borders of the iris, these extensile structures readily allow the opaque membrane to recede before the needle, rather than be torn or cut through, and the surgeon vainly sweeps the membrane before the instrument from side to side, at the risk of serious injury and consecutive inflammation of the ciliary processes or iris. Two needles, brought to bear upon the opaque capsule from different sides of the cornea or sclerotica, furnish each other with a point of resistance, and the capsule may be torn open or cut at pleasure. If it be reticulated, it is possible to twist one of the needles round and round the band, so as to get a hold upon it in case it should prove very tough. The needles usually act perfectly, if passed through any convenient opposite points of the margin of the cornea, the pupil being always, where possible, dilated by atropine. It is but seldom desirable that one of the needles should be passed through the sclerotica. Both the hands of the operator being engaged, it is necessary that the lids should be held open, either by an assistant or by the wire speculum. The second needle may be used in cases where the first, or single needle, has failed to cut through the capsule. The instruments are, the ordinary cataract needle, the stem cylindrical, and of a size to easily occupy the corneal puncture, the point either straight and cutting, or slightly curved, according to circumstances. In no case is it necessary to enter the instrument beyond half an inch in depth; the stem may, therefore, be made thicker from this distance. This plan of operating enables the surgeon to cut through a softened and rotten iris, without dragging it from its attachment, and otherwise injuring the interior of the globe. Mr. Bowman has used it successfully in the formation of artificial pupil.

No discussion on this communication took place.

ANALYSES OF THE CASES OF INJURIES OF THE HEAD EXAMINED AFTER DEATH, IN ST. GEORGE'S HOSPITAL, FROM JANUARY, 1841, TO JANUARY, 1851; WITH PATHOLOGICAL AND SURGICAL OBSERVATIONS.

By PRESCOTT HEWETT,

Assistant-Surgeon to St. George's Hospital.

In this analysis, the author purposely included only fatal cases, where the exact nature of the injury had been clearly made out.

SECTION I. *Scalp Wounds without Fracture of the Bones.*—In this decennium, 33 cases of scalp wounds without fracture of the bones were examined. In 10 of these cases death was produced by some other cause. In the remaining 23 cases, mischief of a serious nature soon followed the injury, and ultimately proved fatal. Diffuse cellular inflammation occurred in 17 cases, and in 12 this was accompanied with erysipelas. In 4 cases there was diffuse inflammation of the neck, which spread down to the mediastina in 2, and caused œdema of the larynx in 2 cases. Hæmorrhage in 2 cases followed sloughing caused by inflammation. In 9 out of 12 cases, where both brain and its membranes were healthy, death ensued from purulent infection. In 10 cases inflammation had existed about the membranes or the brain. In 8 suppuration was found between the bone and the dura mater. The trephine had been applied in 3 cases. Most of the patients were persons of intemperate habits. Several had insisted upon leaving the hospital, but were re-admitted with swelling of the scalp and other signs of inflammation. Simple acupuncture, as recommended by Sir B. Brodie, relieves the œdematous swelling not uncommonly following scalp wounds; but free incisions are required when suppuration ensues. Sloughing of the scalp is thus usually prevented. Separation of the dura mater from the bone may occur either as a primary or as a secondary effect. In the first case, the small vessels connecting the dura mater to the bone are ruptured by the blow; in the second, the osseous tissue inflames and suppurates. Generally speaking, the suppuration between the bone and dura mater is circumscribed, and the extent of the mischief on the inner side of the bone is exactly traced by that on the outer side; but should the suppuration occur in the parietal region, it may be much more diffuse. In this decennium there has been no single instance of the secondary puffy tumour of the scalp described by Pott. It has never fallen to the Author's lot to witness a case in which the application of the trephine for the evacuation of pus within the cranium, as described by Pott, had a successful issue. He has never known the trephine applied at St. George's Hospital with the view of evacuating matter situated either under the dura mater or in the brain. Matter may flow, upon the application of the trephine, from the cancellous diploe of the cranium. Purulent infection was observed in fourteen out of twenty-three fatal cases of scalp wound. This disease is found especially in injuries involving the osseous system; and M. Chassaignac believes that the removal by the trephine of the contused bone, before suppuration has taken place in its diploe, destroys the source whence the secondary mischief is for the most part derived; but such an explanation cannot be received as a valid one.

SECTION II. *Fractures of the Bones, and Separation of the Sutures.*—In this decennium, 78 cases of fractures of the skull were admitted, 18 of which had received other severe injuries, of a nature likely to cause death; 56 were simple fractures; 22 were compound. Of the simple fractures, 19 were accompanied by wounds of the scalp not exposing the bone; extensive separation of the sutures co-existed in 14 cases. In 47 cases the injuries had been produced by the patients having fallen from various heights; in 10 the blow had been inflicted by some heavy instrument. In the 56 cases of simple fracture, there was only one single instance in which the injury was confined to the spot upon which the blow had been struck. Fractures of the base of the skull seldom exist alone; in a large majority of cases the injury co-exists with fractures radiating from the point where the blow was struck. In 68 cases of fracture of the base, six only were confined to this region; and it was only in two cases that no trace of fracture could be detected at the seat of the blow. In six cases of simple fracture, the injury was accompanied by depression, which was in all very slight. In 10 cases of compound fracture, there was also depression of the fragments, considerable in nine. Fractures of the skull, with depression of the inner table alone, occur but rarely. The author divides the skull into three zones, to each of which injuries are often confined, fractures of the middle zone being the most common. Fractures involving the orbital plates of the frontal bone are oftentimes accompanied with effusion of blood in the orbit. Bleeding from the ear is of not infrequent occurrence in severe injuries to the head, indicating fracture through the petrous portion of the temporal bone. But of the signs indicative of fracture of the petrous bone, one of the surest is the copious discharge of a watery fluid, which may or may not be preceded by bleeding. The author believes the fluid to come from the sub-arachnoid space. That such is sometimes the case has been established by M. Robert, in a valuable paper in the "Mémoires de la Société de Chirurgie de Paris," Vol. I. The discharge occurred in old as well as in young subjects. M. Chassaignac has endeavoured to prove that this fluid owes its origin to the filtering of the colourless part of the blood, and other surgeons have held that it comes from the cavity of the arachnoid. Such cases, however, if they do occur, must be rare. The author does not believe that the source of the watery fluid in all cases is the sub-arachnoid space, but in most cases, and especially those where it is clear and abundant from the commencement; and he refers to Mr. Hilton's Lectures in proof of this statement. Extensive separation of the sutures co-existed with the fractures in 14 cases; separation of the coronal suture occurred in seven cases, and of the lambdoidal in three cases; of the sagittal suture in four cases. In one case, and in one only, there was separation of a suture without a fracture; it occurred in the posterior part of the squamo-parietal suture.

The President observed, that Mr. Hewett's paper presented many features of great interest, well calculated to awaken discussion. He was surprised, however, that no cases had been mentioned in which, after severe injuries to the head, of a diffusive character, consecutive symptoms followed after a long interval, during which interval the consequences of the original injury had been apparently recovered from. He referred to instances in which abscess formed in the brain long after the effects of the injury had passed away. No such instances had been related by Mr. Hewett; and he (the President) regretted that so interesting a branch of the inquiry had been passed over in silence.

Mr. Cæsar Hawkins eulogised the paper as being a valuable

and important contribution to surgical science, well calculated, by its nature, to render the diagnosis of injuries of the head less obscure, and the treatment of them more obvious. Such communications deserved to be highly praised, because they tended greatly to remove all liability to error in the treatment of those particular injuries to which they referred. Few instances, he believed, would occur, at the present day, in which the vault of the skull would be trephined for effusion of blood at the base, or in which the same operation would be performed in order to afford exit to pus really situated at some distance from the spot at which the skull had been perforated. Collections of blood or pus effused within the substance of the brain would, provided the case were thoroughly analysed, and the knowledge now possessed brought to bear on the subject, be less frequently mistaken for effusions of blood or pus exterior to the substance of the brain, and to be treated in accordance with that view. Now and then, undoubtedly, it would be almost impossible to avoid making a mistake, under circumstances of unusual difficulty; but he was convinced, that such circumstances would very rarely occur, and mistakes be seldom committed, if papers similar to that of Mr. Hewett's were contributed to surgical science, because the observations which such papers embodied would render the diagnosis of obscure injuries much more accurate. The cases related by the author had all been fatal; and, though severe injuries to the head were, without doubt, in the large majority of instances, followed by death, yet he had met with two cases in which such injuries had been recovered from. A man came under his care whose head had been jammed between the buffers of two railway carriages and severely injured. There was profuse bleeding from the ear, and disordered motion and impairment of sensibility in all those parts supplied by nerves emanating anteriorly from the base of the skull. In fact, the nature of the symptoms was such as to convince him that the base of the skull had been fractured. The man, however, gradually recovered, although a long time elapsed before he was able to walk about, and even now he had imperfect vision with one eye. The second case was that of a woman who was tossed by a bull, and had her skull severely fractured, the fracture extending, as the symptoms unmistakeably showed, to the base. This patient remained for a long time in a precarious state; but, after a time, the reparative processes slowly manifested themselves, and she was restored to health. Mr. Hewett had drawn particular attention to the discharge of watery fluid from the ear in cases of fracture of the base of the skull; and he (Mr. Hawkins) thought this would now become an important symptom, indicating, in many instances, as Mr. Hewett had pointed out, the direction which the fracture pursued.

Mr. Curling concurred in Mr. Hawkins's opinion respecting the merits of the paper, but thought its value would have been greatly enhanced if the cases related had been contrasted with others of an opposite nature. It would have been extremely interesting to have known what was the relative proportion of recoveries and of deaths after injuries of the head. It would be interesting, moreover, to know whether recovery ever took place in those cases in which there was profuse serous discharge from the ear, when that discharge proceeded from the ruptured arachnoid sac. He (Mr. Curling) had seen many cases in which recovery had taken place, notwithstanding the appearance of this serous discharge; and it would be very desirable that some information respecting cases of [this nature should be afforded, as some more definite ideas might thereby be obtained respecting the origin of this discharge in different instances. No allusion had been made by the author to contre-coup. He (Mr. Curling) did not, by this title, mean to refer to cases in which fracture of the skull occurred at a spot opposite to that which received the blow, but to those instances in which rupture of the cerebral substance and effusion of blood occurred, in a part opposite to that which exhibited signs of the external injury. Probably, Mr. Hewett intended to include such cases of contre-coup in the further communication which he had promised. In his opinion, the number of deaths which had occurred from scalp wounds, accompanied with diffuse inflammation, were very considerable; and he thought that very active remedies were disadvantageously applied to injuries of the head. He had seen instances in which mercurials and general depletion had been employed for the relief of such injuries, with less benefit than had followed the adoption of less vigorous measures. He agreed with the remarks of Mr. Hewett, relative to the frequency of suppuration beneath the dura mater. In all the cases in which he had witnessed the employment of the trephine, pus had been found beneath the dura mater as well as exterior to that membrane.

Mr. Prescott Hewett said, he had purposely avoided any reference to cases which had recovered, because such reference would have been foreign to the object of his paper, which was to set before the Society the results disclosed by *post-mortem* observations made during a period of ten years, in fatal cases of scalp wounds, or injuries to the skull. It had been his aim to point out with certainty the symptoms which followed particular injuries; and, if he had included cases of recovery, such certainty would have been clearly unattainable; because, when patients recovered, it was not possible to declare positively the nature of the injuries they had sustained. With regard to the source of the serous discharge from the ear, he did not at all mean to assert, that it was invariably to be found in the arachnoid; indeed, he was indisposed to believe that, in favourable cases, it could have proceeded thence; and, in the cases which Mr. Curling had adverted to, the belief, that this fluid was derived from the arachnoid, was hypothetical; for, recovery having ensued, no opportunity had been afforded to verify the supposition. He had not yet arrived at the subject of contre-coup, or of effusion of blood beneath the bone. His observations of these conditions would be embodied in a subsequent communication. He acknowledged, that the number of fatal cases which he had recorded as occurring at St. George's Hospital, from scalp wounds, followed by diffuse inflammation, might seem to constitute a rather large proportion; he was, however, unable to ascribe this mortality to any peculiar stringency of treatment; for, to the best of his belief, the treatment of scalp wounds, and their complications, was very similar throughout the Metropolis; and he imagined that, in cases of this nature, he should employ the same remedies at St. George's Hospital that Mr. Curling would employ at the London.

The Society adjourned at the usual hour.

MEDICAL NEWS.

Oxford, June 10.—In a Convocation holden this day, the following degree was conferred:—Doctor in Medicine: Charles T. Coote, Pembroke.

Royal College of Surgeons.—The following gentlemen having undergone the necessary examinations for the diploma, were admitted Members of the College at the meeting of the Court of Examiners, on the 10th inst.:—

Coleman, Henry William Alexander, Elstree, Herts.
Death, Robert, New Broad-street.
Jones, Henry, Soho-square.
Roberts, Bransby, North-buildings, Finsbury-circus.
Robertson, John Charles, Waterloo, Portsmouth.
Sidebottom, Edward, Mottram, Cheshire.
Stewart, Donald Patrick, Blair Athol, Perthshire.
Webster, Henry, Dulwich.

Collegiate Elections.—Notices have just been sent by the Secretary of the Royal College of Surgeons to the Fellows of the Institution, acquainting them, that the annual meeting for the election of three Fellows into the Council of the College, in the room of the three members going out in rotation, will be held at the College, on Thursday, the 7th day of July next, at one o'clock. We understand that the retiring members of the Council are, Messrs. James Luke, the senior Vice-President; Frederick Carpenter Skey, the Professor of Surgery to the College; and Thomas Wormald; all of whom, it is expected, will be again returned, as only one of the Fellows next in rotation has thought proper to come forward as a candidate, but not in opposition to the re-election of such good men as the retiring members of the Council; we allude to Mr. John Hilton, F.R.S., Surgeon to Guy's Hospital, who, it is stated, will retire in favour of Messrs. Luke, Wormald, and Skey. After the election, the Fellows will dine at the Freemasons'-tavern, under the presidency of Mr. W. J. Wilson, the senior surgeon of the Manchester Royal Infirmary, Mr. William Adams consenting to act as Honorary Secretary.

The College Studentships.—At a meeting of the Council of the Royal College of Surgeons, on Tuesday afternoon, Mr. H. Vandyke Carter, formerly of St. George's Hospital, was appointed Student in Human and Comparative Anatomy, in the vacancy occasioned by the retirement of the senior student. It is stated, that not one of the gentlemen retiring from this appointment has accepted the assistant-surgeoncy in the Royal Navy, offered to him by the Council,—a proof of the estimation in which the service is held.

The Faculty of Physicians and Surgeons of Glasgow have, through Mr. Hastie, M.P. for that city, presented Memorials to the First Lord of the Treasury and to the Secretary for the Home Department, against the Medical Bill proposed by the Provincial Medical and Surgical Association.

APOTHECARIES' HALL.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, June 9, 1853:—

DALE, WILLIAM, Kirbymoorside, Yorkshire.
HARVEY, ANDREW.
HEWITT, WILLIAM, Liverpool.
HOWARD, JAMES FIELDEN, Shaw, Lancashire.
MACKLEY, WILLIAM RANDALL, Bradford, Yorkshire.
ROBERTSON, JOHN CHARLES, Waterloo-villa, Portsmouth.
RHODES, JAMES, Glossop.
SNOAD, EDWARD HEMINGS, Ashford, Kent.

JOSEPH FRANCIS OLLIFFE, M.D., Physician to Her Majesty's Embassy at Paris, was presented by Viscount Palmerston, at the late Court and Privy Council, and had the honour of Knighthood conferred upon him by the Queen.

APPOINTMENTS.

NAVAL.—In consideration of the services of the under-mentioned officer, while co-operating with the army during the war in Caffraria, the following naval promotion has taken place:—Mr. John Elliott, Assistant-Surgeon, to be Surgeon.——Surgeon Alexander Bryson, M.D. (1836), of the Fisgard flag-ship, at Woolwich; Assistant-Surgeon James G. T. Forbes (1849), recently serving in the Rifleman steam-sloop, to the Simoom; Surgeon Howard R. Banks (1843), to the Terrible steam frigate, commissioned at Woolwich. Surgeon John I. Crawford, M.D. (1843), to the Horatio.

MILITARY.—38th Foot: Digby William Lawlor, gent., to be Assistant-Surgeon, vice Smith, appointed to the 81st Foot.—Hospital Staff: Henry Polson, gent., to be Assistant-Surgeon to the Forces, vice Cameron, appointed to the 52nd Foot.

MILITIA.—Middlesex: James Stilwell, Esq., F.R.C.S., to be Surgeon.—Duke of Lancaster's Own: Henry Behrend, gent., to be Assistant-Surgeon.

DEATHS.

LINDOE.—June 7, at Stratford, near Salisbury, R. F. Lindoe, M.D., late of Sion Lodge; M.D. Grad. (1836) of the University of Pennsylvania, U.S.; L.R.C.P. Lond. 1842; Physician to the Bath General Hospital.

MACLISE.—June 8, at Kingstown, near Dublin, Mr. Alexander Maclise, of 14, Russell-place, Fitzroy-square, aged 75.

M'KECHNIE.—June 9, at Smithhills, Paisley, Robert M'Kechnie, M.D., aged 73; L.R.C.S. Edin. 1803; Fellow of the Faculty of Physicians and Surgeons of Glasgow, 1811; M.D. Marischal College, Aberdeen, 1820; formerly Physician to the Paisley House of Recovery.

SEWELL.—June 8, aged 72, Professor Sewell, of the Royal Veterinary College, having been an officer of that Institution for fifty-four years.

THE SOCIETY OF ARTS have awarded their Medal to Mr. Toynbee, F.R.S., Aural Surgeon to St. Mary's Hospital, for his invention of "an artificial membrana tympani in cases of deafness, dependent upon perforation or destruction of the natural organ."

YELLOW FEVER.—In consequence of the prevalence of yellow fever at St. Thomas's, Captain Woolley considered it more prudent to receive coals from the ships alongside, rather than moor his steamer at the wharf. During her stay in harbour his servant died of the fever in St. Thomas's Hospital, and one seaman was left on shore ill; but he sailed with a clean bill of health. Notwithstanding these precautions, the yellow fever appeared the day after the Parana sailed, and four persons successively fell victims to this fatal disease, of which there have been eleven cases during the passage. All the cases appeared within three or four days after leaving St. Thomas's, and no case occurred after the 4th of May. The conduct of the surgeon is beyond all praise. The Medway, which arrived at St. Thomas's from Jamaica on the 31st ult., had lost, during the fourteen days she was absent from St. Thomas's, no fewer than twelve of her crew by fever. It is generally supposed that St. Thomas's is the focus of the disease, although Jamaica is now suffering.—*Times*.

THE CLAPHAM ABORTION CASE.—In the Central Criminal Court on Thursday, before the Lord Chief Baron and Mr. Justice Erle, the trial of Charles Cunningham, surgeon; James Thomas, chemist; and Charles Torrens Currie—charged with the felonious use of certain instruments with the intent to procure abortion—was postponed until next session.

ARMY STATISTICS.—From a Parliamentary paper, we arrive at the following facts as to the rate of mortality in the army:—It seems that in the ten years ended 1847, the total mortality was 13 16-10 per 1000 annually, which is 1 7-10 per 1000 more than is usual among a town population at the same period of life. Mortality is greater in the infantry than in the cavalry, by 4 3-10 per 1000; but this is not peculiar to the infantry of Great Britain,—in the French army the same difference prevails. Tropical service does not seem to have as deleterious an influence upon the health of troops as may have been supposed. From the returns of ten years, it appears clearly enough, that it does not amount to more than 1 in 2000 of the whole force annually. In further proof of the mild influence of service in the tropics, it is stated, that the duration of life among pensioners above 45 years of age is much the same, whether they have served in temperate or tropical climates. Diseases of the lungs are terribly frequent among the men employed in the United Kingdom—not less than 27,496 having been afflicted between 1837 and 1847. But, although mortality is greater in the infantry than the cavalry, suicide is much more common in the latter branch of the service. The troops in which the relative proportion of mortality is the greatest is the Foot Guards. The annual ratio per 1000 of mean strength 20·4, which is 3 per 1000 in excess of the line-mortality. This is ascribed to defective barrack accommodation, the great amount of night duty, the deteriorating influence of residence in a large town, and the greater facilities for, and temptations to, dissipation. On the other hand, in the Household Cavalry, the mortality is in a lower ratio than in any other branch of the service, because the higher rate of pay enables the men to procure many comforts beyond the reach of other soldiers, and, if married, to maintain their wives and children without privations to themselves; while they also enjoy more extensive barrack accommodation, and a considerable exemption from exposure on night duty. From a comparison with the mortality of the civil population, there has been scarcely a shade of difference between the mortality in any 1000 of the Household Cavalry and the same number of the latter, in the space of ten years. Regarding the mortality among the troops at different foreign stations, it seems, that at Gibraltar, in the ten years ending in 1847, the deaths were 11 1-10th per 1000 of the mean strength annually,—being almost precisely the same as among the most favoured class of troops in the United Kingdom. Add to this, the deaths of 35 men by accident, suicide, murder, execution, and sudden natural causes, and we have 12·1 per 1000. At Malta, the deaths of Europeans from all causes, including those which occur among invalids on the voyage home, were 19·3 per 1000. In the Ionian Islands, the mortality was 17·9 per 1000. Fever, and diseases of the stomach and bowels, appear to have been the main causes of death. In British America, the average mortality was as follows:—The Bermudas, 16·4 (excepting when the yellow fever prevailed in 1843, when one-seventh of the whole force was cut off); Nova Scotia and New Brunswick, 13·1; Canada, 13·0; Newfoundland, 11·5.

THE *New York Medical Gazette* states, that 29 suicides, 5 murders, and 209 cases of insanity, are directly traceable to spiritual manifestations.

MORTALITY NOTABILIA.—The reduced rate of mortality announced in last return was continued in the week that ended last Saturday, in which the number of deaths registered was 1007. In the ten corresponding weeks of the years 1843-52, the average number was 887, which, with a correction for increase of population, becomes 976. The actual mortality is, therefore, still in excess of the estimated amount by 31. As compared with those of the previous week, the present results exhibit general uniformity. Fatal cases produced by typhus have risen again from 41 to 53; those by phthisis from 152 to 163; and, while bronchitis has still further declined from 63 to 54, pneumonia has increased from 42 to 62. Small-pox last week carried off 5 children and an adult; scarlatina 28 children and 2 adults; measles and hooping-cough 25 and 58 children respectively. A few weeks ago, diarrhœa slightly manifested a disposition to increase, but more recently it has subsided; the deaths from this complaint were 23, while the corrected average is 15.

Scarlatina in Christ's Hospital.—Mr. Hooper, Registrar of the North-west sub-district of the City of London, has addressed the following note to the Registrar-General:—"A report of rather an alarming character having appeared in the newspapers respecting scarlatina at Christ's Hospital, I visited the infirmary of the school, to ascertain the facts of the case, and found that the total number of cases received into the infirmary since the 30th of September last, the date when the epidemic first made its appearance, to this day, is 76, out of which number 2 proved fatal; one boy died on February 12, and the other on April 24. There are at present in the infirmary, 12 scholars under treatment, 8 of whom, I am happy to report, are convalescent. One of the masters (Rev. Mr. Collingwood) died this week."

Lodging-houses.—At 6, London-terrace, St. George's in the East, the widow of a labourer, aged 60 years, died, according to the verdict returned by a coroner's jury, a "natural death, accelerated by sleeping in a room 12 feet wide and 6 feet 9 inches high, in which 15 persons slept at the same time."

Destitution.—No less than four deaths were recorded in the week as produced by want.

MORTALITY IN PUBLIC INSTITUTIONS for the week ending June 11 :—

	Males.	Females.	Total.
Workhouses	50	48	98
Military and Naval Asylums ..	11	..	11
General Hospitals	32	16	48
Hospitals for Special Diseases .	3	3	6
Lying-in Hospitals	1	..	1
Lunatic Asylums	3	3	6
Military and Naval Hospitals..	..	..	..
Hospitals for Foreigners, &c. ..	1	2	3
Prisons	1	..	1
	102	72	174

DEATHS *in the Metropolis for the week ending Saturday, June* 11, 1853.

CAUSES OF DEATH.	JUNE 11. 0	15	60	All Ages.	Sum of Ten Weeks.
ALL CAUSES	453	360	189	1007	8866
SPECIFIED CAUSES	452	359	189	1000	8824
1. Zymotic (or Epidemic, Endemic, and Contagious) Diseases ...	170	48	10	228	1932
SPORADIC DISEASES:					
2. Dropsy, Cancer, and other Diseases of uncertain or variable seat ...	3	24	24	51	441
3. Tubercular Diseases	53	137	11	206	1872
4. Diseases of the Brain, Spinal Marrow, Nerves, and Senses ...	49	31	24	104	1088
5. Diseases of the Heart and Blood-vessels	1	26	17	44	317
6. Diseases of the Lungs and of the other Organs of Respiration ...	66	33	37	136	1063
7. Diseases of the Stomach, Liver, and other Organs of Digestion...	23	24	11	58	555
8. Diseases of the Kidneys, etc. ...	...	10	3	13	109
9. Childbirth, Diseases of the Uterus	1	9	2	12	96
10. Rheumatism, Diseases of the Bones, Joints, etc.	2	5	3	10	65
11. Diseases of the Skin, Cellular Tissue, etc.	...	2	...	2	11
12. Malformations	2	...	...	2	31
13. Premature Birth and Debility ...	28	1	...	29	233
14. Atrophy	37	...	5	42	169
15. Age	...	...	35	35	416
16. Sudden	1	2	1	4	102
17. Violence, Privation, Cold, and Intemperance	11	7	6	24	324
CAUSES NOT SPECIFIED	1	1	...	7	42

BOOKS RECEIVED.

Paget's Lectures on Surgical Pathology.

An Address to the Governors of the Sea-bathing Infirmary. By A. G. Field.

Dr. Kennion on the Harrogate Waters.

Chemistry of the Four Seasons. By Griffiths.

TO CORRESPONDENTS.

Erratum.—In our report of the Meeting at Dublin last week, the seconder of the 6th Resolution should have been "Mr. Robert Burnett," and not "Dr. Bernal."

THE LATE SIR HANS SLOANE'S MONUMENT.

[To the Editor of the Medical Times and Gazette.]

SIR,—On passing the old church at Chelsea to-day, I noticed the monument to the late distinguished physician, Sir Hans Sloane, in a dilapidated state, and the inscription almost effaced. Surely, Sir, if the Profession for which he did so much cannot afford to repair the monument of one who was such a liberal friend to science, I consider it a duty (in the full acceptation of the term) of that wealthy family who have inherited his riches, to remove this seeming blot from their escutcheon.—I am, etc.

JUSTITIA.

R. A. H.—The parties named are arrant impostors. The disease is easily cured in most cases, and any respectable practitioner could undertake the case with every prospect of success.

Messrs. Hill, Davidson, and Co.—The Memorial of the Faculty of Physicians and Surgeons of Glasgow reached us too late for our present Number.

M. R. C. S.—A Candidate for an Army Assistant-Surgeoncy must not be more than twenty-five years of age. The age has been altered since the retirement of Sir James Mc'Grigor. Interest is undoubtedly required to procure an appointment.

A Young Surgeon will find much difficulty in treating the contractions which arise in the cicatrices of burns. We can only advise him to study the subject in the last edition of Mr. Fergusson's Practical Surgery, where he will find some excellent advice.

Dr. Wilson is informed, that the bust of the late Mr. Dalrymple, now at the Royal Academy Exhibition, is to be presented to the College of Surgeons.

Mr. Goodyear will find some valuable information on the statistics of deaf-dumbness in Ireland, in an article by Mr. Wilde, published in the last number of the Journal of the Statistical Society. It is a paper which will not only interest our correspondent, but the Medical profession generally, being well deserving of attention.

M.D., etc.—Epulotic applications are such as promote the healing over of sores; hence the epulotic ointments of the old pharmacentists. The word is derived from ἐπί, upon, and οὐλή, a scar.

We agree with *A Constant Reader* that is very desirable to have a good uniform edition of the old Medical Classics. We very much doubt, however, if the sale would be sufficiently large to remunerate any enterprising publisher.

J. W. P., Manchester.—Every chemist ought, of course, to possess the last edition of the "London Pharmacopœia," and ought to be aware of the various changes and alterations which have been made in the names of certain preparations. The case mentioned proves, that the druggist was an ignorant man, who did not know his business, or that he was guilty of gross carelessness. Our Correspondent had better communicate the facts to the President of the Pharmacentical Society.

We have received a communication from *John H. Blount, Esq., M.B.*, Surgeon to the Birmingham Borough Gaol, in which this gentleman states, that he does not feel justified, without permission from the Visiting Justices, in laying the particulars of the suicide of the boy Edward Andrews before us, at least for the present. He adds, what we stated last week, that the facts are being investigated, and will shortly be made public.

G. H. is answered in the affirmative.

A Lover of Justice.—The College of Physicians will, we are sure, act for the best. As our Correspondent's letter contains nothing that has not been said over and over again, no good would accrue by publishing it. We are weary of the subject, and shall rejoice when the New Charter is obtained.

W. H. S.—We again beg to decline publishing your communication. The gentleman referred to is a most honourable man, and we are sure could easily explain away the apparent inconsistent conduct you complain of. We see no reason why you should not communicate with him personally, if you have sufficient courage, instead of anonymously, through our columns.

H. J. Wilkinson, B.A., etc.—Cuneiform Letters, from "*cuneus*," "a wedge," is the term given to the inscriptions found on the Babylonian and Persian monuments, from these characters being formed like a wedge. As this species of writing is the most simple, so it is also the most ancient, as far as is known: and though it cannot with certainty be said by whom it was invented, yet it is certain that its use was common to the Medes, Persians, and Assyrians at the most remote periods of their history. According to Dr. Grotefend, this mode of writing is formed of two radical signs—the wedge and the angle,—is susceptible of about thirty different combinations, and consists of three varieties, distinguished from each other by a greater or less complication of the characters. It differs from the ancient Egyptian hieroglyphics, inasmuch as it is alphabetic, not ideographic; and with a few, but important modifications, it is said to form the basis of most of the Eastern languages.

A Subscriber.—The sulphur bath may be made by adding from two to four ounces of the sulphuret of potassium to about sixty gallons of water.

Encampment at Chobham.—Such of our readers as intend to visit this establishment will do well to provide themselves with the very excellent little plan of it, published by Collins, of Paternoster-row.

COMMUNICATIONS have been received from—

Dr. RICHARD NEALE, Ombersley; WM. PRETTY, Esq., Mornington-road; Dr. BUDD, King's College; A VACCINATOR UNDER THE ACT; Dr. WALLER, Finsbury-square; Messrs. GRAHAME, WEIMS, and GRAHAME, Glasgow; Dr. SHERIDAN MUSPRATT, Liverpool; A. G. FIELD, Esq.; H. V. D.; AN OLD SUBSCRIBER; Dr. CORFE, Middlesex Hospital; Dr. THOMSON, Liverpool; Dr. BORRETT, Great Yarmouth; Dr. GOODAY, Newcastle; G. H.; JUSTITIA; G. M. JONES, Esq., Jersey; HENRY SMITH, Esq., Caroline-street, Bedford-square; Dr. CROWDY, Brighton; Dr. J. W. OGLE, Queen-street, May-fair; Dr. BURROWS, St. Bartholomew's Hospital; R. BURNETT, Esq., Tullow, Ireland; J. L. JARDINE, Esq., County Hospital, Winchester.

ORIGINAL LECTURES.

ILLUSTRATIONS OF CLINICAL MEDICINE AND PATHOLOGY.

By GEORGE BURROWS, M.D., F.R.S.
Physician to St. Bartholomew's Hospital;

AND

W. SENHOUSE KIRKES, M.D.
Registrar and Demonstrator of Morbid Anatomy at St. Bartholomew's Hospital.

(Continued from page 490.)

INFLAMMATION OF SEROUS MEMBRANES IN CHRONIC RENAL DISEASE.

It rarely happens, in the *post-mortem* examination of fatal cases of chronic renal disease, that the different serous membranes are found quite healthy. One or more of them very commonly presents evidence of having been formerly or recently inflamed. Occasionally, all exhibit traces of bygone inflammation; while a recent affection of one,—as of the pericardium,—may have been the immediate cause of death. No doubt, in many instances, the serous inflammation has resulted from some other cause than the renal disease; but the greater comparative frequency with which the effects of such inflammations are met with in fatal cases of Bright's Disease, than in any other great class of disease, excepting, perhaps, acute rheumatism, is presumptive evidence, that the affection of the kidney has had an important share in the production of the inflammatory attack.

The liability of the serous membranes to become secondarily affected in the course of chronic disease of the kidney, was recognised and pointed out by the eminent physician to whom we are indebted for so much that we now know on the subject of renal disease. In the first volume of his Reports, Dr. Bright says: "When the secretion of these organs [the kidneys] is greatly deranged, the serous membranes seem always ready to become the seat of inflammatory action."(a) And again, at page 18, he speaks of the "disposition which exists in this disease [renal dropsy] to severe inflammatory affection of different structures, but more particularly of the serous membranes;" and such secondary serous affections he elsewhere speaks of as among the chief sources of danger in chronic renal disease. The truth of these statements has been amply confirmed by later observers(b), and the liability of the serous membranes to become inflamed in the course of Bright's disease may therefore be regarded as a fact well established.

The following case, in which several of the great serous membranes presented the effects of both recent and old inflammation, affords a good general illustration of the subject.

Case 13.—William Eldridge, aged 52, admitted into Luke front ward, under Dr. Roupell, September 30, 1852, affected with general anasarca. He had a pale, doughy, bloated face: his œdematous legs were discharging much watery fluid through openings which had formed spontaneously in the integuments. His urine was scanty, pale, specific gravity 1015, albuminous; he had frequent desire to void it, but the quantity passed each time was small. A watchmaker by trade, he had been tolerably healthy through life, with the exception of two former attacks of rheumatism. A year before admission, his health gradually began to fail, but he had no dropsical symptoms until five weeks previous to his admission, when swelling commenced in his legs. He had the aspect of intemperance, but the nature of his habits was not clearly ascertained. He was placed on full meat diet, and ordered ferri ammon. citratis gr. x., ex haust. aloes cum camph. ʒi. ter die. The day after his admission, he complained of much tightness in the chest, and increase of cough and difficulty of breathing, from which symptoms he had latterly suffered more or less severely. These symptoms increased, and, on the night of Oct. 2, he was kept awake by them, and by pain extending from his chest through to his shoulders. He was accordingly ordered a blister to the chest, and to continue his former draught. On the 6th, profuse diarrhœa ensued, the matters ejected being of a dark, almost black, colour, probably from the iron he was taking. He complained of being cold and shivery, and was evidently failing. He was ordered ammon. sesquicarb. gr. iv., tinct. scillæ ɱxx., ex haust. ammon. acet. ʒiss. quartis horis. During the next three days, he continued in a dying state, much oppressed in his breathing, moaning and talking in a half delirious manner, complaining much of cold, and sick after almost everything he took. Just before he died, he threw up a very large quantity of dark, blackish, slimy fluid, and the effort of ejecting this seemed to be the immediate cause of his death.

After death the lower limbs remained very anasarcous, and superficial sloughs were found on the calves of the legs. There was some œdema of the epiglottis and adjoining mucous folds. The two surfaces of the pericardium were loosely adherent to each other, through the medium of pale, soft, flocculent, and granular lymph. When separated, the surfaces were found roughened by the adhering lymph, but presented no undue vascularity. There was a little turbid, milky fluid in the lower part of the cavity. The heart was much enlarged, the increase in size being confined almost exclusively to the left ventricle. With the exception of a little degenerate fibrin adherent to the free border of the mitral, the valves of the heart were all healthy. The blood was coagulated and separated in the cavities of the heart; yet, in the veins, and particularly in the liver, it was remarkably thin and watery, being more like blood-stained serum than blood. Both pleural cavities presented evidence of recent and of former inflammation. In each there was about a pint of turbid fluid, containing flocculent masses of soft, recent lymph, and the surfaces were smeared over with similar soft lymph. There was no appearance of undue vascularity of the affected membrane. The evidence of old inflammation was most marked on the the left side, the lower lobe of the left lung being surrounded, compressed, and mis-shapen by a thin, though tough, layer of old false membrane. The lungs were rather œdematous, and also compressed by the pleural fluid. The peritoneum contained several pints of turbid fluid, in which floated soft flakes and films of recent lymph. There were, also, bands and laminæ of old lymph, by which several portions of the intestines were agglutinated to each other and to surrounding parts. The visceral layer of the peritoneum also presented a general opaque-white appearance. The mucous membrane of the stomach was eroded by a few hæmorrhagic ulcers. The intestinal canal and other abdominal viscera generally, except the kidneys, were healthy. The kidneys were extensively degenerated, being small, pale, and rough. The surface was uneven, lobulated, and roughened by numerous granular elevations of the cortex, and dotted over with a multitude of opaque specks of pale, cream-coloured deposit. The cortex was very narrow, scarcely a line in thickness, pale, and, especially in the left, thickly beset with cysts of various size, some as big as hazel-nuts. The medullary tissue appeared healthy. The bladder was healthy and empty.

In this case, which is selected from several others more or less like it, there was evidence of recent inflammation of both pleuræ, the pericardium, and the peritoneum, and of former inflammation of the pleuræ and peritoneum; probably, had the pericardium been more closely examined, the signs of previous mischief, in the form of white patches

(a) Medical Reports, Vol. I., page 10.
(b) See among others, Dr. Taylor on the causes of pericarditis, "Medico-Chirurgical Transactions, Vol. XXVIII.

of false membrane, would probably have been found beneath the layer of recently-effused lymph on this membrane also. The close connexion of the recent serous inflammations with the renal disease, may reasonably be admitted, in the absence of any other likely cause, and the existence of such extensive degeneration of the kidneys. With regard to the signs of old inflammation of the serous membranes, it must, of course, remain doubtful whether they originated in the morbid condition of the blood existing during the former rheumatic attacks, or in that induced by the renal disease. Either would explain them equally well.

Among the points of general interest in the pathological appearances presented in this case, may be mentioned the enlargement of the left ventricle of the heart, without material valvular disease, and the thin, watery character of the blood, both of which conditions are so frequently met with in chronic renal disease.

Although it may, then, be considered as a settled truth, that the serous membranes, as also other tissues, are prone to inflammation in the course of Bright's disease of the kidney, yet there are certain peculiarities in the serous inflammation, which have either not yet attracted particular attention, or have not been sufficiently dwelt upon; and as these peculiarities seem calculated to throw some light on the cause of the inflammatory process, and so to be beneficial in treatment, an inquiry into them here may not be out of place. In the first place, then, it may be observed, that in every stage of chronic renal disease there seems to exist a tendency to the effusion of an excess of serum into the serous cavities, as well as into the loose cellular tissue of the body. The effused fluid, in this disease, differs in its nature, as well as in the cause producing it, from that exuded in cardiac dropsy. In the latter, it results from mechanical distension of the capillaries; in the former, from an unhealthy state of the blood, especially of its serous parts. In cardiac dropsy, the exuded serum is usually clear, and of a colour varying from pale straw to deep yellow; in renal dropsy it is almost always slightly turbid or opaline, sometimes whey-like and milky, and usually of a pale tint, almost colourless. Moreover, the dropsical fluid in cardiac disease is free from urea; while that in renal disease has been found to contain urea in appreciable, often considerable quantities. Simon met with it in the fluid from dropsical legs in a case of Bright's disease;(a) and Marchand found "an extraordinarily large amount in the fluid removed by tapping from a woman with ascites."(b) Simon, therefore, is probably correct when, speaking of dropsical fluids in general, he says: "If the kidneys are affected, urea is generally present" in them.(c) For, since it is well known that the blood, especially the serous part of it, is charged with urea in Bright's disease, it may be readily believed, that, in transuding the walls of the bloodvessels, the serum of the blood carries with it some of the urea, as well as other materials which it holds in solution, and that this ingredient may be detected in the dropsical fluid accumulated in the serous cavities, or exuded into the cellular tissue of the body.

To the presence of this excrementitious material in the serum exuded from the blood may probably be ascribed the inflammation which is apt to ensue in the serous cavities in renal disease. Highly delicate and sensitive, as we know the serous membranes to be, we can scarcely be surprised that they should be irritated and excited to a kind of inflammatory process by the substitution of a fluid charged with urea, for the simple, unstimulating secretion by which their interior is naturally moistened. And this is the more likely to be the case, since the fluid exuded into the serous cavities remains pent up therein, and cannot, as in the case of exudations from the mucous surfaces, be at once got rid of, and the liability to mischief from prolonged contact with the membrane be thus obviated. Wherever exuded, the serous fluid, impregnated with urea, will probably act as a local irritant to the part with which it comes in contact; but, from the mucous surface, it is swept away as fast as poured out; while, in the serous cavities, and the cellular tissue of the integuments, or of organs, it necessarily remains until re-absorbed, and may readily be supposed to induce the inflammation which the serous membranes, the subcutaneous cellular tissue, and the substance of cellular organs such as the lungs, are apt to undergo.

The several peculiarities observed in the serous inflammations ensuing in the course of renal disease, may, probably, in great measure, have their explanation in the view here taken of the cause of these secondary inflammations. The inflammatory process, as it occurs in this disease, differs in several respects from that arising spontaneously, or excited by any other cause than renal disease. In its mode of onset it is usually insidious, commencing and progressing with scarcely any of the general or local signs of inflammation, no pain, and no fever, and, therefore, often not discovered till after death, or detected during life by a mere accidental auscultation. It commences, too, very frequently, in one or more serous membranes simultaneously, and quite independent of any obvious exciting cause, such as exposure to cold, and, therefore, scarcely explicable on any other supposition than that of a contaminated condition of the blood. In duration it is usually protracted far beyond the ordinary term of existence of common inflammation. In Case 6 there was evidence of pleurisy existing for more than four months, and almost unattended by symptoms. The products of the inflammatory process are likewise different from those in ordinary inflammation. Instead of meeting, in fatal cases, with the evidence of acute inflammation, as afforded by vivid redness of the surface, and layers of firm, fibrinous lymph intermingled with pus, it is usual to find but little vascularity of the affected membrane (see Case 13), while the lymph is of a soft, curdy, flaky kind, floating in a pale milky fluid, and rarely deposited in tough laminated strata on the surface. Everything, in fact, tends to show that the inflammatory process is of a low form, and unattended by the characters of ordinary active inflammation. In part this peculiarity may be due to the state of general debility and anæmia which the renal disease almost invariably induces; but it is probably, also, in great measure dependent on the cause which has given rise to the inflammation, namely, according to the view just stated, an unhealthy and irritating quality of the fluid exuded into the serous cavities, which fluid, like the serum of the blood, is more or less charged with the elements of the impeded urinary excretion. The fluid in the serous cavities being at all times, in renal disease, in an unhealthy condition, probably acts as a permanently local irritant of a more or less active kind, according to the amount of urea which it contains. Hence may arise the peculiar dull, opaque, milky appearance of the various serous membranes, and the pale, slightly turbid, or flaky character of the fluid within them, met with so very frequently in fatal cases of renal disease, whether of the acute inflammatory kind, as after scarlet fever, or of the more advanced and degenerate form. When the serous fluid contains a considerable quantity of urea, in consequence either of rapidly-ensuing structural changes in the kidney, or of any sudden arrest of dropsy into the cellular tissue, or a catarrhal discharge from a mucous surface which had hitherto served in some measure to rid the blood of part of the excrementitious material accumulating within it, then the additional irritation thus produced lights up a more active inflammation in one or several of the serous membranes, and in this way may bring the disease to a fatal termination.

The several peculiarities just mentioned as belonging to the serous inflammations in renal disease are exhibited in the following few cases, which are of quite an ordinary kind. Case 14, which is an example of inflammatory dropsy, probably consequent on the scarlet-fever poison, illustrates, among other points, the statement made above concerning the nature of the fluid usually found in the serous cavities in fatal cases of renal disease.

Case 14.—Jane Robinson, aged 7, admitted into Mary ward, October 25, 1849, under Dr. Roupell, affected with extensive general anasarca. The surface of the body had the peculiar, pale, waxy appearance so common in acute renal dropsy; especially in children. She had a dry, wheezing cough, and slight difficulty of breathing, explained by some mixed crepitations diffused through the lower half of each lung behind; but she complained of no pain; her aspect was bright and cheerful; tongue nearly clean, appetite good, and the bowels freely open; her urine, however, was scanty, pale, turbid, and highly albuminous; examined microscopically, it exhibited *(a)* a few blood corpuscles *(b)*, a

(a) Simon's Animal Chemistry. Translated by Dr. Day. Vol. II., p. 494.
(b) Ibid., p. 490. (c) Ibid., p. 490.

few fibrinous casts of urinary tubules, containing much granular material, with traces of corpuscles and nuclei *(c)*, several free nuclei *(d)*, large irregular masses of granular matter, and *(e)* numerous large tesselated epithelium scales, separated and grouped,—no oil. The child had been ill for about seven weeks, its ailment commencing with slight feverishness, unaccompanied by either rash or sore throat, but followed, in a week, with desquamation of the cuticle of the hands; the attack was not sufficiently severe to prevent its playing about; but in about three weeks its abdomen rather suddenly began to swell, and the dropsy then speedily extended to other parts. A week before admission, cough came on, accompanied with difficulty of breathing, which, at times, became very urgent. In a day or two after admission, with increase in the cough and difficulty of breathing, a distinct, though soft and churning pericardial rubbing sound was detected in the cardiac region, and it continued, with increased cardiac dulness on percussion, to within two days of the child's death, when it gradually became indistinct. During the eight days it was under observation in the hospital, the child's cough and difficulty of breathing continued, and the latter gradually became more distressing, in spite of the various measures applied for its relief. The last twenty-four hours of its life were spent in a state of great distress from the urgent dyspnœa.

On examination after death, the kidneys were found larger than natural; the cortex extremely pale, though variegated with a few star-like bloodvessels; the medullary portion of a deep red colour. Through the capsule, but more distinctly on its removal, there were observed on the surface of each kidney, numerous closely-set, minute, pale yellow specks, like so many fine grains of sand. On section, the cortex appeared filled with the same yellowish-white material of which these specks consisted; the cut surface had the peculiar dull, yellowish-white, streaky appearance not inaptly compared to the section of a parsnip. Examined beneath the microscope, portions of the cortical structure exhibited the urinary tubules crowded and distended with granular matter and epithelial cells; the Malpighian capsules were similarly distended; while, over the field, were numerous large circular masses of granular material, which appeared to represent the minute grains seen with the naked eye on the cortex, and probably consisted of separated Malpighian bodies, with granular matter enclosed in the capsule. The pericardium contained about ʒss. of turbid, whey-like fluid; while a few firm granules adhered to the root of the great vessels. In each pleural cavity were about six ounces of similar pale, turbid fluid; and about a pint of the same existed in the peritoneal cavity. There was no undue vascularity or recent deposit of lymph in any of the serous membranes. The heart was much enlarged, especially the left ventricle; the valves were all healthy. (See Case 13.) The lungs were pale, solid, and heavy, from extreme œdema of the pulmonary tissue, though crepitant at all parts. Nothing worthy of note in relation to the case was observed in any of the other organs.

Here, in a recent attack of acute renal dropsy, the fluid in all the serous sacs presented the pale, milky character mentioned as being so generally observed in renal disease, even independent of any decided evidence of inflammatory action. The fluid, differing as it thus does from that transuded in cardiac dropsy, is evidently in an unhealthy condition, and may, in consequence, be supposed likely in time to induce irritation and inflammation of the delicate structure with which it remains in contact. Besides the illustration which this case seems to furnish in regard to the point just mentioned, it affords important information respecting the pericardial friction-sound perceived so distinctly during several days in the child's life-time; showing that this sign, when occurring in dropsy after scarlet fever, does not invariably indicate an active inflammatory process, to be combated by antiphlogistic measures; for there was no increased vascularity of the pericardial surface, or product of inflammation within its cavity, found after death. The cause of the friction-sound in this case must remain matter of speculation; possibly it depended on some dryness and roughness of the surface existing previous to the exudation of the serum found after death; for as yet we have no evidence that mere serum in the pericardial cavity can give rise to a perceptible rubbing sound.

The affection of serous membranes in renal disease will be concluded in the next paper.

HISTOLOGICAL ANATOMY
AND
MICROSCOPICAL MANIPULATION.

By Dr. BOON HAYES,

Physician to the Northern Dispensary; Lecturer upon Pathology and Morbid Anatomy at the Hunterian School; formerly Lecturer on Anatomy, Physiology, and Pathology, at the Sydenham College, Birmingham.

PART SECOND.

THE PHYSIOLOGICAL DEMONSTRATION OF THE TISSUES.

Lecture X.

Summary.—97. Sections of Teeth—98. Transverse Sections—99. Longitudinal and Oblique Sections—100. Pulpal Cavity—101. Dentine—102. Dentinal Tubuli—103. Enamel—104. Cementum, or Crusta Petrosa—105. The Analogies of Tooth and Bone—106. The Development of the Teeth.

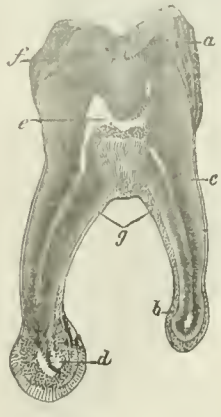
TEETH.

97. Sections of teeth—transverse, oblique, and longitudinal, may be prepared in a way similar to that employed in preparing bone sections; but the operation is more troublesome and difficult, will take much more time, and will be much more frequently unsuccessful. Hence, after you have made one or two sections, it will be better for you (of course, according to the value of your time, means, and manipulatory skill) to purchase such specimens from those who make it their business to prepare histological objects.

98. For making a transverse section, select a large and well-shaped *molar;* any tooth will do, but this is best. Between two pieces of soft deal wood, fix it in a vice, and, with a very fine metacarpal bone saw, or saw purposely made of watch-spring, saw off, by steady, equal sweeps of the instrument, a portion near the top of the crown; then *the* section you are about to preserve, which should not be more than 1-12th of an inch thick. Take this thin specimen,—which will be very successfully made, if not broken in some part of the operation,—and grind it down, with *patience and careful deliberation, and by slow and steady action*, upon a common smooth slate,—not a grindstone. (70. Lecture VIII.) You will then observe two of the three parts common to the structure of teeth,—viz., the "enamel" and the "dentine."

99. For making longitudinal or oblique sections, the tooth must be packed in a similar manner before fixing it in the vice, and then sawn off, either longitudinally or obliquely, though with less deliberation and more ease than in the last operation.

The part in the process requiring most care is, when, having got through the crown, you are just commencing upon the fangs; for, unless the tooth be well packed, one or both of these is certain to break. Grind this specimen down, like the transverse section, upon a smooth slate, using plenty of water, and gentle and steady friction; and, upon examining it with a very low power, you will observe a specimen like the accompanying plate, which we will now proceed to examine *seriatim*.



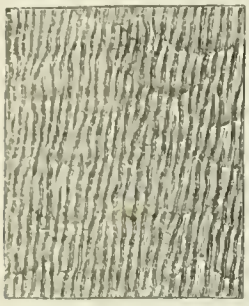
Vertical section of human molar tooth:—*a*, enamel; *b*, cementum, or crusta petrosa; *c*, dentine, or ivory; *d*, osseous excrescence, (sometimes observable,) arising from hypertrophy of cementum; *e*, cavity; *f*, osseous cells at the outer part of the dentine.

100. In the first place, observe the PULPAL CAVITY, which is to the tooth what the medullary cavity is to bone, and

which originates in the same way. Into it pass an artery, vein, and nerve; and these ramify upon the pulpal surface, the artery carrying blood to the dentinal tubuli, whence the *liquor sanguinis* (not blood corpuscles) proceeds, to the nourishment of this apparently inorganic mass.

In the teeth of some animals, this cavity seems to send off deverticula between the dentinal tubuli, as if for the purpose of supplying them with more vascularity. On to the walls of the pulpal cavity the dentinal tubes open, and thence radiate to the enamel superiorly, and the crusta petrosa inferiorly.

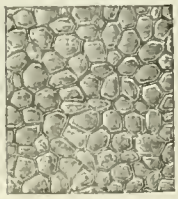
I think it would not be difficult to prove, that caries of teeth more frequently proceeds from inflammation commencing in this cavity, than from any other cause. But I shall refer to this at another period.

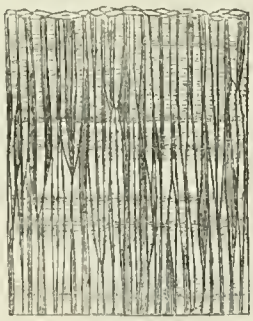


Oblique section of dentine of human tooth, highly magnified, showing the parallel tubuli.

101. The Dentine, or ivory of teeth, is their essential component; it consists of tubes which lie, for the most part, in a parallel direction, and intertubular substance. When examined with a high power, and by transmitted light, the tubuli appear dark, as in the engraving.

102. Now, these tubuli are very, very much more minute in diameter than the blood-globule; hence the *liquor sanguinis* alone can permeate them for their nourishment; so that teeth are in the same condition as bone in this respect. The dentinal tubes, of course, appear dark, and the lighter and apparently broader masses are the real substance of the dentine. In this, and especially near the layer closest to the enamel, dentinal cells are sometimes seen, which may probably be analogous to the lacunæ of bone. If you examine the dentinal curvatures, you will see that they are of two kinds; one set, in bold and evident curves; another set, not so evident, but which, with a little patience and high magnifying power, you may see,—curves *upon* the curves already demonstrated. The former are called the "primary;" the latter the secondary "curves" of the dentinal tubuli (like a biserrated leaf in botanical description). From the tubuli minute branchlets are given off on the sides; and towards the end the tubes terminate, either in cells, or by anastomosis, or by looping back upon themselves.



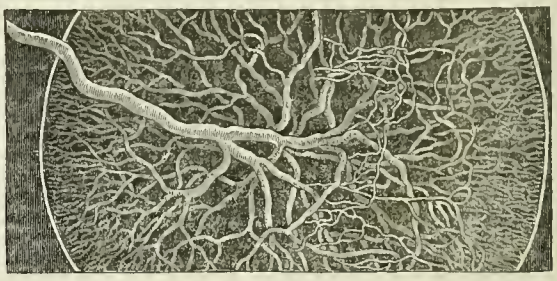


103. The plates *a* and *b* represent the surface and vertical sections respectively of the shell of a pinna; but they admirably illustrate the structure of the next important element in teeth, namely enamel. This substance, which caps the crown of the tooth, is the hardest part of a tooth's structure. It is composed of more or less hexagonal prisms,—one end of which is free, the other in contact with the dentine. It has no tubuli of its own; but, sometimes even in man, prolongations or deverticula of the dentinal tubuli are observable in it. Its purpose is, doubtless, in man, to protect the dentine. In some of the lower animals, it is so arranged with the cementum, that, by an unequal wearing from the same trituration, a constant rough surface is presented to the object undergoing mastication. Very few fishes have enamel on the teeth, and it is absent in the Edentata, Cetacea, and Ophidia.

104. The Cementum, or "crusta petrosa," at first envelopes the whole tooth, but soon gets worn off the crown, as far down as the neck. It is, compared with the other two structures, very soft; and, examined with the microscope, more closely resembles bone than any of them; in fact, it is continuous with the bone of the jaw in some animals; thus proving its identity. It contains lacunæ and canaliculi, which are easily demonstrable; and, when there is a large mass of it, something like Haversian canals.

105. There is, then, a great analogy between tooth and bone. In the crusta petrosa absolute likeness, and in the dentine (the constant tissue of the teeth),—analogies too striking to be overlooked,—viz., the tubuli, analogous to the canaliculi; intertubular cells, analogous to the lacunæ; and intertubular substance, analogous to the laminæ of bone. In the enamel the greatest departure is observable, but not wider than its peculiar function suggests; and it must be remembered, first, that it is the least constant tissue of tooth; and secondly, that its chemical composition is very much the same as that of other parts of tooth, all of which clearly resemble bone composition.

106. Lastly, the analogy is completed in a review of the mode of tooth development. Thus, upon a mucous papilla, a large quantity of gelatinous matter is observable, in which certain cells appear; the gelatinous matter exactly resembles the incipient cartilage in which ossification commences. This papilla is supplied with an artery, which nourishes its cells, and these gradually so develope, that the older ones are pushed outwards, and form the dentine. The manner in which the artery ramifies upon a dental papilla is well seen in the accompanying plate:—



The subject of the development of teeth would hardly be admissible in a course so rudimentary as this, not only on account of its difficulty, but again, because it should come under the head of the epigenesis, or developement of the tissues generally; and lastly, because it is a subject which most of you must take for granted upon the testimony of others,—among these, our highest authorities are Goodsir and Arnold.

ORIGINAL COMMUNICATIONS.

SOME GENERAL OBSERVATIONS ON FATTY DEGENERATION.

By WILLIAM FREDERICK BARLOW, M.R.C.S.

Resident Medical Officer to the Westminster Hospital.

Part IV.

[Continued from page 470.]

Instances of apoplexy occur which cannot be explained either by any visible rupture of the large, or by the condition of the minute, vessels. In some of these cases, some branch of intermediate size has probably given way.(a)

A short time ago, Mr. Hunt gave me the opportunity of examining the brain of a young woman who died rapidly of apoplexy. She was only 21. Her complexion was sallow. Within a few days of her attack, she had been quite well; but then had pain in her head, and was changed in her temper, seeming "morose and dissatisfied." One morning

(a) A case of apoplexy would not have been introduced in this place, were it not clear that cerebral apoplexy cannot properly be separated from cerebral aneurism in our consideration of these matters, whether we regard the large or small bloodvessels of the brain.

she was seized with what appeared to be an hysterical attack. There were some movements described as convulsive. Insensibility followed, and she sank rapidly, and died about ten o'clock in the evening.

There was a clot of blood in the middle lobe of the brain, close to its inferior surface, and covered only by a very thin layer of cerebral substance. The brain around it was very slightly softened. A branch of the middle cerebral artery, running in the direction of the effusion, was atheromatous, and presented an aneurism, the size of a small pea; but no rupture could be detected, either in this or any other vessel. The cerebral vessels looked generally healthy; the brain, as a whole, was of the most normal appearance and consistence; but yet the liability to apoplexy had not been quite local, for there was a small effusion into the fourth, and in one of the lateral ventricles.

It was, of course, desirable that the small cerebral blood-vessels should be minutely examined. I tried, together with Dr. Basham, to find some traces of degeneration in them, but could only discover a few granules, which resisted the influence of hydrochloric acid, and were undoubtedly fatty.

I sent, also, parts of the brain adjoining the coagulum to Mr. Paget, Dr. Quain, and Dr. Charles Shearman, who favoured me with the following reports.

Mr. Paget says:—"In the piece of brain which you sent me, I found none but small bloodvessels,—capillaries, and those of one or two sizes larger. Nearly all these appeared healthy; only a few showed slight signs of degeneration. I have an impression, that, in other cases of apoplexy in unusually young persons, I have seen the degeneration of the arteries very local. One may suspect, in these cases, that there may have been a single defective spot in a large vessel, rather than a general or extensive state of degeneration."

Dr. Quain remarks:—"I have examined with great care the specimen you last sent me, but I cannot find any marked degeneration in the small bloodvessels. There unquestionably is some; there are highly refractive particles studding the walls of several of the smaller bloodvessels. The change may possibly have affected the branches of some one particular vessel, of which, perhaps, I have not got a particle. The case is most interesting."

Dr. C. Shearman observes:—"The bloodvessels, generally, are very full of blood; long single rows of blood-corpuscles are seen in some of the smaller. I cannot find any aggregations of fatty granules. In the small vessels, of about the diameter of $\frac{1}{1500}$th of an inch, the fat-granules are scattered about in small quantity, but certainly not to an extent sufficient to render the walls brittle or liable to bulge. By acetic acid, some other fat-granules become visible; but these lie outside the vessel."

Abundance of cases will be found in which cerebral hæmorrhage is seen associated with largely pervading degeneration, either of a fatty or earthy kind. This instance deserves comment on a different score. It is remarkable for the limited traces left by it of a defective nutrition. But though remarkable, it is an example, I doubt not, far from singular. The vessels of the brain, just like those of the heart, are liable to very local decay. Why so? Is it that the blood has not reached fully the affected spot? Or that the spot itself has been defective in assimilating power? Perhaps we do not sufficiently allow for the latter condition in many instances, for it is beyond question, that there are parts within us weaker than the rest, and prone especially to morbid influences and premature decay. They do not flourish as the rest do, even under precisely the same circumstances. And so it would appear that the guide of philosophers had no little occasion for remarking:—"And as to the diversity of parts, there is no doubt but the facture or framing of the inward parts is as full of difference as the outward; and in that is the cause continent of many diseases, which, not being observed, they quarrel many times with the humours which are not in fault, the fault being in the very frame and mechanic of the part, etc."(a) No physician, probably, could have gone much further at the time of this passage being written, for then the laws of nutrition were but little known. That we must look, not to the blood only, but to the assimilating processes of the parts it supplies, for the explanation of various defects of nutrition, and more especially to those which are extremely bounded, may be seen clearly, to proceed no further, from the ofttimes precisely symmetrical disposition of the palpable results of disease and decay.

(a) Lord Bacon's "Advancement of Learning."

Much, most undoubtedly, lies in "that process, in the exercise of which fellow-parts separate from the blood and appropriate matters of identical composition, and maintain through life their original likeness in form, composition, and structure."(a) As correspondent parts are alike in living, so also in dying they are still alike; that strength which once was both simultaneously and equally furnished, becomes withdrawn in the same manner. But one occasional, obvious reason, whatever may lead to it, of unsymmetrical decay, is no doubt some disparity in the assimilating power of corresponding parts; and hence we find sometimes, though M. Bizot's deduction may be confirmed so often, that an artery is atheromatous at a particular spot, whereof the fellow place in the opposite vessel foreshadows decline not ever so slightly; nay, more, that one spot is perhaps almost the only part in which nutrition can be demonstrated to have fallen short.

When under the microscope there lie spread before us a number of fibres of most various aspects, some showing hardly a remnant of muscularity, others having striæ scanty and faint, a third set appearing with perfect structure, we are driven to conclude, supposing, (which, we may grant, must sometimes happen,) them to have been perfectly equal recipients of the blood, that they must have most differently availed themselves of the supply afforded, and have offered most dissimilar resistance to destruction. But here we see no more than we may every day discover in the whole body, or any organ of it. Inequality of nutrition is no ground for surprise. Rather would it be strange if every fibre of one muscle, every duct of one gland, if all portions of every tissue had precisely the same original structure and power, and were exposed to exactly the like influences, and similarly answered to them throughout all the term and changes of life. Were this so, indeed, all parts of each tissue would of necessity perish exactly together; one hair would not turn grey before the others, and the irritability of a single muscular fibre might be held as a proof of the soundness of the rest.

In mentioning the remarkable case of Ramazzini, who had symmetrical aneurisms, I have added a note which might, perchance, lead to the supposition, that such aneurisms are more common than they really are; and, arguing from the remarkable symmetry which has been proved to exist in arterial degeneration, they might be naturally supposed to be very frequent; but M. Bizot found only 6 out of 138 subjects, affected with aneurism of the extremities, who presented a symmetrical position of it.(b) Moreover, in 551 cases placed together in a table by Dr. Crisp, I find fellow arteries described as aneurismal fifteen times only, and out of these the popliteal are mentioned eleven; nor would I have it inferred, that the double aneurisms were strictly symmetrical. One of the cases recorded is a popliteal aneurism, in which another aneurism of the same kind was cured by pressure fifteen months before. (c)

In conducting the inquiry, it is plainly of great importance to be satisfied, not only, when an artery becomes aneurismal, that it is free from aneurism on the spot opposite to that affected, but also that the vessel is *healthy* there; for there may be, as M. Bizot takes occasion to observe, corresponding degenerations, though differently advanced.(d) *Time* is to be distinguished from *seat* of occurrence. Cataracts are, of necessity, always symmetrical when fully formed; but one takes the lead of the other, often thus furnishing an instance of resemblance as to seat, but of more or less difference as to time of decay.

Even now the history of aneurism is incomplete. What are its associations? Of what die those who have been cured of the affection by the ligature or compression? How often springs it from local defect or accident? how often from part either of extended or general atrophy?

Dr. Bellingham and Dr. R. Quain have both referred to its association with fatty degeneration of the heart. I have laid a case where this occurred before the Pathological Society; (e) the subject was 29 years of age; there were

(a) Dr. William Budd on the "Symmetry of Disease," "Medico-Chirurgical Transactions," Vol. XXV., p. 100.
(b) Loc. cit., p. 440.
(c) Diseases of the Blood-vessels, p. 235.
(d) Mr. Phillips laid recently before the Royal Medico-Chirurgical Society a case of double (not symmetrical) popliteal aneurism occurring in a woman. I had the opportunity of observing it, the patient being treated in the Westminster Hospital.
(e) Report, 1851-52, p. 310.

found, also, slight fatty degeneration of the small blood-vessels of the cerebellum and granular atrophied kidneys.

Both in a surgical and medical point of view, the association of aneurism and fatty degeneration of the heart is of great practical consequence. If an artery be tied where the heart is ill-nourished, partly degenerated, and feeble to the utmost, is it not likely, even setting all other considerations aside, that the circulation may be consequently so feeble as to prevent the wished-for, necessary changes? (a) Symptoms have been charged to the progress of aneurism on certain occasions, which were due more probably to the state of the heart connected with it. Lancisi refers to difficulty of breathing, on exertion, as a sign of "aneurism of the pulmonary veins," and quotes Peter Poterius to show, that those who are affected with it are apt to die suddenly. But this author excelled in imaginary diagnosis, and was clearly equal to the (I say, not unscrupulous,) invention of causes.(b) Setting both this, and many other writers, aside, however, it is plain, from the detail of recent cases, that symptoms may occur in the course of aneurisms which are probably due either to atrophy or degeneration of the heart.(c) I may refer especially to the attacks of syncope, which frequently occur, and these certainly are not due always to changes happening in the arterial tumours. In some cases of aortic aneurism, there are palpitation, faintness, breathlessness on exertion, all relieved somewhat by the recumbent posture; all, commonly, to be more satisfactorily accounted for by the state of the heart than that of the aneurism. A man, who was a patient of Mr. Holt's, died lately in the Westminster Hospital with a huge aortic aneurism, which caused an immense bulging of the chest. So pale he was, that syncope could hardly make him paler. Not rarely his breathing laboured, his pulse fell, and he seemed as though dying. The swift march of the aneurism, together with the immense quantity of blood which, after death, was found to have been deposited within it, sufficiently explained the marked anæmia. I examined the heart microscopically. Fibres were chosen from both auricles and ventricles. There was incipient fatty degeneration everywhere, and in some places it was very marked. Moreover, fat was noted in abundance between the fibres. But it must be left for future research to demonstrate how very closely we should observe the heart in various instances of aneurismal tumours, and not at once, and too positively, refer for explanation to certain assumed changes in the latter when passing attacks of faintishness occur; or, as in other cases, where an ashy paleness overspreads the features, as with death's own hue, and the heart pauses or falters frightfully, and the breathing is transacted in long, distant sighs, and the mind seems as though departing from the body, and drops of sweat lie crowded on the brow.

For those who are contented with resting on effects, without looking to causes, the association of aneurism with the subject of degeneration, both fatty and calcareous, has but little interest. But aneurism, as a general rule, is not less dependent on imperfect nutrition, though far, oftentimes, from being *entirely* so, than suppuration is on a process of inflammation. And as, in treating of inflammatory action, we must speak of abscess, so, in discoursing of atrophy and its issues, must we consider aneurism. In the course of this change we are too apt to think only of the operation for its cure; or where, unhappily, no ligature can be resorted to, nor compression used, to confine ourselves to the helpless watching of its progress. It is, be it observed, far more terrific in a medical than a surgical light; large arterial trunks have been secured with a boldness to be justified only by confidence in nature, whose great resources are the best aid of art; but what is to be done for cerebral, thoracic, abdominal aneurism?

Let this affection, like every other, be, wherever possible, viewed carefully in its every relation. Of what significance is a slight spot of atheroma, when regarded in true connexion with it! In the varied processes of the human body, be they of health or sickness, there is no such matter as an accident, no such thing as a trifle. The fall of an eyelash typifies death; the least speck of arterial atrophy or degeneration is in accordance with a law not less fixed than that whereby man, regarded as a complex whole, becomes "developed into dissolution." Let us not forget conclusions in phenomena, nor think that *mere* observation will avail. If we view principles, without reference to facts, we shall soon be advancing beyond our depth; but if we view facts without reference to principles, we shall be as young children seeking pebbles on the shore.

[To be continued.]

(a) I have referred, in the first part of this essay, to degeneration of the blood-vessels as one cause of the failure of operations for aneurism in aged persons. Very early age does not give good reason to apprehend a bad issue, but late life often does. Mr. Haynes Walton tied successfully the common carotid of a child only four months old, who had an aneurism by anastomosis within the orbit, and the operation succeeded perfectly. "Our anatomical injections," says Mr. John Bell, "are successful only in very young subjects; while, in older subjects, the arteries burst, because they have lost their strength, or tear, under the necessary ligatures, because they have lost their pliancy. The anatomist knows, by the first touch of the femoral artery, for example, whether his subject will bear to be injected; and the surgeon, in like manner, often foresees, by the first touch of his finger, those burstings of the artery and secondary hæmorrhages, of which so many have died."—"Principle of Surgery," London, 1826. Vol. I., p. 316. Mr. Bell makes reference to the case of Petit, who, having amputated a thigh, could neither affect the femoral artery by tourniquet nor ligature.

(b) "Treats of the diagnosis of spasm of the longitudinal fibres of an artery." . . . . "The diagnosis and treatment of false aneurisms depending on spasm of the circularly spiral fibres of arteries are explained." —"Observations on Aneurism," printed for the Sydenham Society, pp. 51, 52.

(c) A case is related by Mr. Hodgson (*Op. Cit.* 48) in which much heart-disease co-existed marked dilatation of the aorta. The subject of it was subject to syncope, had a small, frequent, intermitting pulse, and died suddenly. "The semilunar valves were thickened, and separated from each other." "The right ventricle of the heart was very much enlarged and flabby."

DETAINED COAGULUM REMOVED FOURTEEN DAYS AFTER DELIVERY,

BY AN

EXPERIENCED ACCOUCHEUR, AND MISTAKEN FOR A PORTION OF RETAINED PLACENTA,

WITH OTHER PECULIARITIES, AND SOME REMARKS UPON THE FORMATION OF TOUGH COAGULA, ETC.

By WILLIAM PRETTY, Surgeon.

A. B., an unmarried female, about 21 years of age, of respectable parents, and well-educated, became pregnant, and, in the seventh month of gestation, was obliged to seek seclusion in the Metropolis, in a depressed state of mind and in a suffering state of body. Upon the first suppression of the catamenia, and for some time after, while subject to slight appearances, she took Widow Welch's pills, and subsequently sustained several falls upon the abdomen, followed by much pain. When first visited by her medical attendant, only a week before she went into labour, he was informed of her having lost very many nights' rest from frequent micturition and abdominal pain, and was unable to walk. Sedatives and mild aperients were prescribed. On Dec. 10th, 1852, labour-pains commenced, she having then completed her seventh month. I was called in to see this patient, in consequence of there being something unusual and difficult to make out in the presenting part, but which was not cleared up till after delivery. Upon examination, *per vaginam*, the finger passed through a soft mass into a circular opening, unyielding, and of bony hardness. The fœtus was anencephalous, which was the cause of our difficulty in making out the presentation. The labour-pains were active and regular, and shortly effected the expulsion of the child, but not that of the placenta. The latter could be just felt in part, detained within the uterus, but considered as detached from its surface. Pressure not causing its expulsion, and a gush or two of blood occurring, it was deemed advisable to remove it; and this I attempted to do by first passing my hand into the vagina, and then two fingers through its substance, drawing it down, aided by moderate traction of the cord with my other hand. Not succeeding in this manner, I passed my hand into the uterus, grasped the placenta with my fingers, for it was small, and it was then very easily removed. I examined it in a part of the chamber which was but imperfectly lighted by a candle, but did not discern that any portion was wanting, though, from its broken state, such was possible. I, however, was impressed with the belief that the whole had been removed. The uterus well contracted, and a binder and compress were applied to give moderate support. This little tedious detail is necessary in connexion with this case, and perhaps more will follow. All seemed to be going on well for the first two or three days after delivery. From this time up to the fourteenth day the

discharges from the uterus were sometimes copious and florid, sometimes serous and but slightly coloured; at other times clots would pass, and a very offensive smell, much beyond that which often attends the first discharges, was very discoverable, even at the bedside. These appearances were accompanied with great tenderness over the uterus, some abdominal pain, loss of rest and strength, with much constitutional disturbance. It was thought that there existed some *post-partum* inflammation, which the free hæmorrhagic discharges would relieve. Opiates, both by the mouth and rectum, in combination with other medicines, were administered, and a strong solution of iodine was applied externally. The tenderness became considerably diminished, and the pains much abated; the uterus gradually acquiring its natural size, but the hæmorrhage, though in less amount, was still going on, producing an exsanguineous countenance and rather serious debility. In this state of things, a fortnight after delivery, I was induced to make an examination per vaginam, which, though somewhat unusual in respect of time, I much regret not having done a week earlier. I found the urethra and the vagina generally very sensitive to moderate pressure, the os and cervix uteri not tender to the touch, and within the os, and slightly projecting into the vagina, a firm substance, about the size of a damson. It was so confined by, and attached to the cervix uteri, that I could not easily remove it. A consultation with a physician-accoucheur took place next day. The doctor said, at first, that the substance felt like that of a polypus, but gave it as his opinion that it was a portion of retained placenta, which he succeeded in removing with two fingers, after a persevering and rather painful effort.

My friend examined the substance he had dislodged, said that it was a portion of retained placenta, and that a small portion still remained behind, which the then contracted state of the uterus rendered it impossible to remove, but that it would in all probability be thrown off.

I expressed an opinion, that he was mistaken about the nature of the substance removed, which, I think, excited some little surprise in the doctor's mind. He then said, "Macerate it in water," which I did for two days, without it undergoing any change. I then took the easy and simple method of dividing it longitudinally, which immediately and clearly showed it to be a compressed clot of dark, black blood, which had acquired a rather smooth superficial covering of, I suppose, mucus from the follicles of the cervix uteri. I further asked two mutual friends to inspect the substance, and, if necessary, to submit it to examination by the microscope. They had no doubt of its being blood.

In size, it was equal to a large damson or a small plum; its shape bore some likeness to a kidney, the centre of the concave side showing a rough surface, which a threepenny silver coin would cover, and which, doubtless, had been attached to something from which it had been forcibly removed. Now, a hasty and superficial examination, with a preconceived opinion, did deceive an experienced accoucheur; which may teach us humble practitioners not to be easily self-satisfied without adopting all the means in our power to guard against error. Had this patient been differently circumstanced, and this error reported as a truth to a husband and friends, some injury would have been done to the attendant surgeon's reputation; but no report was made till after the truth was clearly ascertained. For, however, an experienced professor of midwifery to be thus imposed upon by the senses of both feeling and sight, must, I think, show something rather uncommon in the thing itself. The patient's recovery was considered doubtful, as the hæmorrhage, if unsuppressed, would probably sink her. The vagina was plugged with soft sponge, and the following mixture prescribed—

℞ Liq. opii sedativ. ʒij.; sp. æther. sulphuric. ʒij; syrupi ʒj.; tinct. secalis æther. ʒiij.; mist. camphor. q. s. ad ʒvj.

One tablespoonful to be taken every two hours.

This mixture was regularly given through the night, and the whole was taken. To it, and to it alone, do I ascribe the state we found our patient in the following morning. This medicine was prescribed to meet the indications of procuring sleep, and of giving tone and stimulation to the uterus. But very little sleep was obtained; and such an alarming state of depression came on, that a very liberal administration of brandy, in conjunction with ether and ammonia, became necessary to keep off fatal syncope. Now, this condition of our patient was quite unexpected by either myself or her surgeon, and I think I may also add, by the physician; and if ever I should be again a party to the giving of these same medicines in the same doses, I shall direct that the effects be most narrowly watched.

I am no advocate for large doses of opium frequently repeated in cases of flooding; and of the secale cornutum I can say, that I have given that drug, in various forms and in considerable doses, without any evil results. The etherial tincture of secale, however, was to me a new preparation, and how much of the serious depression was owing to it, and how much to Battley's sedative, I cannot determine; but it is certain, that to the combination may be attributed the almost pulseless, faint, and depressed condition of the patient, for no further hæmorrhage occurred. The sponge-plug effectually restrained the hæmorrhage; it was removed on the second day, loaded with positively stinking discharges, but with very little appearance of blood. There had been some pain from distension, and the use of the catheter was required. The vagina was well syringed out, and a smaller sponge introduced. This was removed next day, almost as offensive as its predecessor, but not again introduced. Serous, and occasionally sanguinolent, discharges continued for some little time. Opiate enemata were required, vaginal injections were daily used, and tonic medicines persisted in till the general health was much improved. A month after her confinement she appeared to menstruate for two days. The fluid had a little of the offensive odour of the former discharges, and a small black clot, mixed up with mucus, also passed, of the size of a pea, and no other substance has passed in any subsequent discharges. Menstruation now returns at proper and regular periods.

Although the general health was pretty well restored, there existed for twenty weeks such weakness of the lumbar muscles, and of those of the lower limbs, that she was unable to raise herself erect, or to move from bed to sofa without the aid of two persons. All sorts of remedies were tried, with but indifferent success; even electro-magnetism for six weeks, though it would produce strong muscular contraction, when employed in sufficient force, did not yield all the benefit hoped for. After this, she commenced using a turpentine liniment. Improvement gradually succeeded, and at the end of six months from the time of her delivery she was able to walk out alone.

It has been suggested to me by a medical friend, that in this case mental disquietude and painful emotions may have had a considerable influence in interfering with the healthy contractions of the uterus, and so have contributed to the amount of hæmorrhage and to the formation of the coagulum, to which I will add the more than probability of some inflammatory action having been set up prior to going into labour. How long the compressed clot had been confined to the spot whence it was removed, or how long it had been in formation, whether from a few days after delivery, or only for a few days prior to its discovery, cannot be known for certainty, but most probably the latter. Why, again, in the midst of such free discharges of blood and serum, this coagulum should have found a spot for adhesion, and should not have undergone decomposition, is not easily to be explained. When blood, escaping from the uterus, forms clots in the vagina, the latter are nearly always expelled in one condition; but when a clot is formed within the uterus, and not soon expelled, but subjected to the contractions of that organ, it would become a firm and tenacious mass, which might resist, as probably it did, in this instance, that process of putrefaction which portions of retained placenta generally undergo, and by which means the uterus becomes relieved of all such adventitious substances. Relative to the formation of coagula in *post-partum* hæmorrhages, and the practice enjoined by that much-respected physician-accoucheur, Dr. Ramsbotham, when they are present, a series of interesting and instructive cases will be found in the *Medical Times and Gazette* for March 26th, and April 9th, of this year. Dr. Ramsbotham states, that firm, tough, heavy, tenacious, and fibrinous coagula, he removed from the uterus, in different cases, from half an hour to four hours after delivery. In case the 13th:—"Two hours only after delivery the coagulum removed was tough, and strongly cemented to the inner surface of the uterus, and gave him as much difficulty in detaching as if it had been a portion of firmly adherent placenta; indeed, he was impressed with the belief, that it was a portion of placenta, and was surprised when he discovered, on examining it and breaking it up, that it consisted of nothing but coloured fibrin." In this, as in all the cases narrated by the Doctor, great pain,

severe pains, excruciating pains, are stated to have been present, and to this feature of active, though inefficient, contractions of the uterus may be ascribed the early formation of such firm coagula. Also relaxation of the uterine fibres occurred in most of the cases, and the uterus was decidedly larger than it should have been immediately after a labour; indicating the very probable condition of distension from coagula, and the removal of which, during the existence of uterine contractions, gave immediate relief to pain, stayed the hæmorrhage, and seemed to have secured the patient's recovery.

In the case I have given, it was not till the second or third day after delivery that pain accompanied with hæmorrhage occurred, at which period general remedies are usually considered as only necessary. All manual interference is uncalled for, if not mischievous. I am, however, disposed to think, that a sponge plug might be used beneficially wherever the powers of life are being seriously reduced by continued hæmorrhage. I regret that I did not use it earlier in this case. I saw lately the very beneficial effects of plugging the vagina in two cases of abortion, at two and three months, which were followed by profuse hæmorrhage and alarming fainting, under the management of Mr. J. R. Pretty, other means having failed before this was resorted to. In the management of Dr. Ramsbotham's cases it will be observed, that the application of a binder is not mentioned, and I, therefore, assume, that it does not constitute any part of his practice. I am aware that a difference of opinion exists among accoucheurs as to its utility and necessity. Having always used a binder in my practice, and, as I believe, with much benefit to my patients, I cannot help entertaining an opinion, that if one had been well applied immediately after delivery, either with or without the addition of a large soft pincushion over the uterus, it would have prevented the relaxation of the uterus, would have diminished hæmorrhage, and probably have rendered the introduction of the hand within the uterus unnecessary. If, however, I am here mistaken, certainly no harm could follow this practice, and some good might fairly be expected from it. I do not lose sight of the fact, that cold had been applied and pressure had been made with the hands to no purpose before resorting to the operation; but the uterus was allowed, at least it did relax and dilate, and fill, more or less, with extravasated blood before these means were used, and no binder was applied. In one case these evils happened an hour after the doctor had left his patient in an apparently satisfactory state. A well-contracted uterus is rightly considered the best and real safeguard against *post-partum* floodings; but many cases do present themselves in practice where the uterus does not acquire that firm feeling and reduced size which would give confidence to the accoucheur; and here to give the artificial support of a binder is of the utmost importance; for I have but very little faith that the usual amount of contractility of the abdominal muscles will do much good in the way of preventing hæmorrhage. When hæmorrhage has occurred, and the binder, with pressure from the hands, does not restrain it, the addition of constant equable pressure from some such appliance as Mr. J. R. Pretty's uterine compress and tourniquet I have found most useful. The cases most familiar to me have been those in which hæmorrhage has been attendant upon a weakly, imperfectly contracted uterus, without pain, or with only very slight pain, causing great exhaustion and alarming faintings. My assistance was requested in three cases of this kind last year, and where pressure and cold had been applied before my arrival. In two of these I succeeded in reducing the size of the uterus, exciting some further contraction, with an expulsion of some coagula, by pretty forcible compression with my hands, and in arresting all further flow by applying the uterine compress with a binder.

In the third case, a first labour, and not seen by me till six hours after delivery, I found the uterus much too large, and so tender upon very moderate pressure of the hands, that I could not persist in my attempts to reduce it. As faintness was gradually going off, and as the flow had very greatly diminished, we trusted to the effects of stimulants; and, in about half an hour, uterine contraction occurred, coagula were expelled, and the patient did well. A binder was afterwards applied.

Dr. Ramsbotham's cases all terminated well under the operation of removing the coagula by the introduction of the hand. Very painful contractions were present in all; and to them I ascribe much of the success. I cannot say, that the introduction of the hand within the uterus not long (say an hour, or a little more) after delivery, has ever proved a very serious affair with me; yet I would not hastily resort to it. In my own family, I once saw it done by an eminent accoucheur, lately removed from us. A slight laceration of the perinæum had accompanied the expulsion of the child's head. The hand and arm of the accoucheur were above the average size,—a thing of some little importance in this operation,—and gave much pain in passing. Coagula were removed; but such a frightful state of collapse ensued, as to render for some time recovery very doubtful. No pain was present when the operation was commenced, and that which attended it was, I believe, entirely produced by the stretching of the laceration.

I hope to be pardoned, if I again make a remark or two upon the best means of applying pressure in *post-partum* hæmorrhages. The principle is recognised by the majority of practitioners of midwifery, and those who have depended upon manual exertion alone know how fatiguing it is, and also that it is often incompent to produce fully the effects desired.

Compression of the aorta, or the iliac vessels, has proved successful in the practice of some French surgeons, as noticed in the *Medical Gazette* two or three years ago; but, before that time, a case successfully treated by pressure made upon the abdominal aorta, was reported by Mr. Brown, in the same Journal, for Dec. 2, 1842. The aorta is easily enough to be felt after delivery, and, in extreme cases, pressure upon it must, so long as it can be applied, cut off the supply of blood to the uterus; but the same good, to a considerable extent, is effected, with the important addition of compressing the uterus itself by the application of pads, or compresses over that organ, well secured by mechanical means, more especially by such as easily permit the amount of compression to be either increased or diminished. Many years ago, I found that great benefit and comfort followed the use of a hard compress over a folded napkin, subjected to pressure from an ordinary tourniquet. Mr. Elam's uterine compress I have found very serviceable, as also Mr. J. R. Pretty's compress with Mr. Coxeter's double-roller tourniquet, which latter apparatus seems to meet all the indications arising in these cases; but the bulk of the pads, the weight of the metallic screw, and the expense of the apparatus, become objections to its use. I have, therefore, instructed Mr. Coxeter to make for me a pad of moderate size, and a band to be applied over it, having straps and buckles. After some thought and experience, I am persuaded, that this apparatus, in nearly all, if not in all cases, will answer the purpose intended. The band will be sufficiently wide to render it unnecessary, in some instances, to use a binder in addition; nevertheless, I recommend the use of the latter also, because it will afford greater support to the abdominal muscles and abdominal viscera, as well as support to the pelvic bones. To keep the uterus from sliding into either iliac fossa, a folded or a rolled-up pair of stockings on each side will suffice; and, if a large amount of pressure from front to back should be required, this may be obtained, in a greater or less degree, by placing a small book, or some other rather firm substance over the pad, before confining the same by the straps and buckles. I have rejected the screw, on the ground of expense, and because I think it may be generally dispensed with; at the same time, I must allow, that it has advantages which nothing else possesses; in the reduction of dislocations, it is superseding the use of pulleys. Mr. Hovell's spring-truss, not allowing of the pressure to be increased or decreased at discretion, renders it an imperfect instrument for obtaining the object in view; yet I should think it might prove serviceable in some instances, and it appears to me to possess the advantage of easy application, and, probably, not of easy displacement; the latter of which is not at all times readily accomplished by a band, which does not encircle the hips, when the patient moves her position. Fortunately, however, one or two hours of properly-applied pressure will, in most instances, secure the safety of the patient. I prefer fixing the binder by small tape-loops (two rows there should be) and strings, to the use of pins. Of six loops, the lower four should form a semicircle,—the convexity forward, so as to allow the hips to be nicely encircled. I have, within the last few days, tried, upon a lady, a fortnight after delivery, whose abdominal muscles continue in a weak state, the application of a cricketer's belt, having the sides a little

hollowed, and rendered, to a certain extent, elastic, by the introduction of India-rubber webbing. I find that it keeps its place very well; it can be purchased for half-a-crown, or even less, at most hosiers' shops; and I shall certainly use it with a pad, in full expectation that I shall thereby be able to restrain the flow in most cases of *post-partum* hæmorrhages. The straps should be made several inches longer for general use.

Medical Times & Gazette.

SATURDAY, JUNE 25.

CLINICAL MEDICINE.

We have frequently expressed our regret, that Clinical medicine has been so much neglected in this country, notwithstanding the ample opportunities afforded by our great hospitals for its successful and efficient cultivation. In again alluding to this subject, we wish to cast no blame upon individuals; on the contrary, we cheerfully admit the zeal and the energy with which many of our hospital teachers endeavour to impress the value of Clinical instruction upon their pupils, and the ardour and perseverance with which they cultivate it themselves. But it is a notorious fact, that there is hardly a subject which the student at the schools considers as of less importance than the attendance on Clinical lectures. Able and elaborate compositions are often delivered from the Clinical Chair to nearly empty benches; and it is little to be wondered at, if the teacher becomes at last wearied at the profitless result of his labours, and gives up his task in despair.

Any one who has studied at the schools in Germany, in Paris, or even in Edinburgh, must be struck with the contrast displayed in the methods of teaching Clinical medicine in these cities, when compared with the system pursued in London. Take La Charité for example; the student finds that a Clinical lecture on Medicine, and one on Surgery, are delivered almost every morning during the season, the text of the lecture being supplied by any case or cases which may happen to be under treatment. Thus, a case of hernia has just been operated upon, and the lecturer proceeds to explain, not only the diagnosis of hernia generally, and its treatment, but the peculiarities of the case which he has just exhibited; or a person has died of heart disease, and the body is brought into the Clinical theatre, and there the lecturer demonstrates to the assembly the lesions revealed by the scalpel, and connects them with the symptoms observed during life, and the treatment which it has been thought necessary to adopt. Now, let the same observer repair to Edinburgh, and the same system is pursued, although the field of hospital practice is far more limited than in Paris or in London. But when he comes to visit the richly-endowed hospitals of our own capital, how great is the difference! He inquires for the Clinical Professor; he is most probably told that there is none; he asks for the clinical lecture, and is informed, perhaps, that one is given once a-week, or once a fortnight, or perhaps still more rarely. If he come on the day and hour appointed for the Clinical lecture, he finds the Lecturer addressing some half-dozen pupils in a school numbering three or four hundred students. If, however, he passes on to an adjoining lecture-theatre, he perhaps finds the Professor of Medicine lecturing, *out of a book*, to an audience of a hundred or a hundred and fifty.

For this very unsatisfactory state of things there are various reasons, and some very easy remedies. Among the great causes of the neglect of Clinical medicine, is the undue importance attached to mere written or verbal discourses on theoretical subjects, the number of which required by the different Examining Boards is so great, that the student has really very little time left for receiving practical instruction. Another reason appears to be, the disinclination of the Lecturers themselves to establish any uniform system of Clinical teaching, although they must all be aware of its paramount importance.

We do not wish to be understood as undervaluing the necessity of theoretical lectures; our only object is, to show, that the student at present has too many of them, and that a change of diet from mere written treatises, which the student may peruse for himself, to the more instructive method of illustration from the actual forms of disease, would be most advantageous to the science of Medicine.

We are aware that there is a question of a pecuniary nature mixed up with this subject; the student has already many heavy fees to pay for the privilege of hearing lectures on various departments of Medicine, and it would be undoubtedly impolitic to add to his burdens in this particular. But, in some of the schools it has become usual to require a certain sum from the student for the whole course of lectures, instead of paying for each course separately. In such cases, it would be perfectly easy for the Lecturers to decide among themselves to remunerate one or two of their number for delivering Clinical lectures.

Another still more efficient mode of encouraging this species of instruction would be, for the various Examining Boards to require a specific attendance on Clinical lectures as a part of the curriculum; and, in order that no extra expense should fall upon the student, it would be very easy and very advantageous to diminish the number of written lectures now required, and to replace them by others of a no less useful but more practical nature. Theory and practice should go hand in hand; but, as things stand at present, the student is too much crammed with the verbal knowledge of the schools, and is too little initiated into the mysteries which may be revealed by opening the great book of Nature.

CONVEYANCE OF FEVER PATIENTS IN PUBLIC VEHICLES.

The London Fever Hospital is situated in the Liverpool-road, Islington, about two miles from St. Paul's; the Small-pox Hospital is at Highgate, about four miles and a-half from St. Paul's. The average number of patients admitted annually during the ten years ending December, 1851, into the latter Institution, was 385; into the former, 839. Persons suffering from these indisputably contagious diseases are carried to these hospitals from all the union-houses, prisons, police stations, and public medical charities in London and its vicinity. And how are they conveyed thither? Let Mr. Clift, the Secretary to the Small-pox Hospital, answer the question.

"The Committee desire me to inform you," he writes to Mr. Grainger,(a) "that the greater number of the patients are sent from unions, parishes, and hospitals, chiefly in public cabs."

One respectable tradesman at Highgate reports, that he has seen as many as eight or nine cabs in a day, containing patients, enter the Small-pox Hospital gates.

We shall not be much above the mark when we affirm,

(a) "Report on the Present Mode of Conveying Small-pox and Fever Patients to the Hospitals in Public Vehicles."

that near 3000 patients, suffering from contagious diseases, are annually carried about London in public carriages,—carriages into which an unsuspecting victim may enter within five minutes of the patient's exit.

Who has not been often puzzled to determine the origin of certain cases of these contagious diseases? "I have been so careful of my children," the anxious mother remarks; "I cannot think where they have been exposed to any source of contagion." Under these circumstances, we have asked the question, "Have they ridden in a street-cab lately?" and have more than once received as answer, "Yes; about ten days since, we were overtaken by a shower; and, afraid that the children might take cold, we came home in a cab." The mystery has thus been cleared up.

Our firm conviction is, that the wide spread of many contagious diseases is greatly favoured by the employment of these public vehicles for the purpose in question, and the consequent creation of so many new *foci* of disease.

The Committee of the London Fever Hospital endeavoured some time since to obtain money for the purpose of supporting a carriage to be employed in fetching patients from their homes, etc.; but it would appear, that they failed in their efforts. Last year the Secretary of the Small-pox Hospital informed Mr. Grainger, that the subject of conveying small-pox patients had occupied the consideration of the Committee for some time, and "was still receiving their attention." While the Health Committee of the Corporation of Liverpool enacted a bye-law, prohibiting, under penalty, the owners and drivers of public vehicles from carrying persons affected with any infectious or contagious disease. This bye-law is as follows :—

"That if the owner or driver of any such carriage shall knowingly carry, or convey therein, any person afflicted with any infectious or contagious disease, or (save in a carriage exclusively used as a hearse or mourning coach) any dead body, every such owner or driver shall forfeit and pay for the first offence the sum of twenty shillings, and for a second offence alleged and proved as such the sum of thirty shillings, and for any subsequent offence alleged and proved as such the sum of forty shillings."

A clause similar to the above was contained in the Hackney Carriages Bill. We are sorry to say "was," for it is no longer there, having been withdrawn from it chiefly through the opposition of Lord Campbell. His Lordship argued, that there is so much disagreement as to what contagious diseases are, that a conviction could never be obtained against offenders. This may be very good law, but it is very bad physic; for there certainly are not two sane doctors in Great Britain who deny that small-pox, typhus fever, and scarlet fever are contagious diseases; so that we think, considering the daily suffering and even death occasioned by the evil the Clause was intended to obviate, and which a similar enactment has, in a great measure, obviated at Liverpool, the learned Law-lord might have tried, if he saw a flaw in the Clause, to have mended it, rather than throw it out altogether. Compared with the benefit to be derived from the prohibition which this Clause would have instituted, the other advantages to be gained by the Bill are trivial in the extreme. The expunged Clause would have saved many a child, and adult too, from disease, deformity, and, perchance, from death,—the Clauses left in the Bill insure us civil drivers, smart cabs, and brisk horses. But, reader! which would you prefer,—a cab and appendages of the present species, that you could leave in as good health as you entered, or one of the new genus, impregnated with typhus, and redolent of small-pox? Lord Campbell has voted for the latter, and deeply do we regret that such legislation should proceed from the House of Peers; and if we could be quite sure that he would not die of the malady, heartily should we wish that His Lordship might be the first to experience the benefit of riding in a cab, the windows of which are yet reeking with the vapour of the breath of a variolous patient.

PARLIAMENTARY INTELLIGENCE.

THE SUCCESSION-TAX AND THE HOSPITALS.

House of Commons.—On Thursday week, Mr. Freshfield asked the Chancellor of the Exchequer, whether he proposed that the Succession-tax should apply to property of Corporations, such as the Royal Hospitals of St. Bartholomew, St. Thomas, and Bethlehem, held in trust for the relief of the sick poor, and for the care and cure of insane persons.

The Chancellor of the Exchequer said, he thought the question belonged to that class of inquiries which were really rather arguments than questions, a class which he thought was multiplying rapidly. If the hon. Member would permit him to say so, he had stated generally the nature of the plan Government meant to propose, and that it was to apply generally to Corporations aggregate, including those of an eleemosynary character.

MORTALITY AMONG THE TROOPS IN BURMAH.

Mr. Bright said, he had seen a private letter from an officer in the East India Company's service, which gave a most appalling account of the mortality among the troops in Burmah. He, unfortunately, had not got that letter with him; but it stated, that one of the regiments had lost, not in action, but from the effects, he presumed, of the climate, and the inconveniences to which the troops were subjected, no less than 400 men, and he believed it mentioned other three regiments, two, certainly, which were described as being reduced almost to mere skeletons. Although not particularly fond of soldiering, he was one of those who considered the lives of soldiers just as valuable as our own.

Sir C. Wood could not answer the precise question put by the hon. gentleman; but he was sorry to say that there had been a considerable mortality among the troops in Burmah. Those at Rangoon had been very healthy, but among those at Prome there had been very great mortality.

MEDICAL REFORM.

[To the Editor of the Medical Times and Gazette.]

Sir,—As I do not wish to take any step in medical politics unknown to the medical world, I enclose you a copy of a letter I have thought it my duty to write to the Earl of Aberdeen and to Viscount Palmerston, and a copy of the reply Lord Aberdeen has directed to be sent to me, hoping that you will be pleased to allow them to appear in your widely-read columns. I am, &c.

Sevenoaks, June 21, 1853. George Kelson.

[Copies.]

Sevenoaks, June, 1853.

My Load,—It has appeared in the daily and weekly journals that your Lordship has been greatly importuned upon the subject of Medical Reform.

There are some points connected with this subject to which, as a Medical Practitioner, I feel it my duty to call your Lordship's attention.

First, as to Medical Reform being the desire of a majority of the Profession.

Has your Lordship been made acquainted with the number of Fellows and Members of the Royal College of Surgeons of England? About 14,000!

Does your Lordship know how many of the Licentiates of Apothecaries' Hall are neither Fellows nor Members of the Royal College of Surgeons? also the number of Fellows, etc.,

of the College of Physicians? When your Lordship is acquainted with these numbers, may I hope your Lordship will consider them, and compare them with the numbers of those who are clamorous for Reform, and satisfy yourself whether you have been importuned by a majority of the Faculty.

In 1845, I took great pains to obtain the opinion of a large proportion of the Medical Body, whose reputation, skill, and high character are unimpeachable; more especially of the medical men in the provinces; and, from the opinions thus obtained, a Memorial was addressed to the then Secretary of State for the Home Department against Medical Reform.

My experience, and my intercourse since that time, have confirmed my previous knowledge, and assured me that a large majority of the Profession are still opposed to what is termed Medical Reform. On questioning Medical Practitioners with regard to this matter, the usual reply I obtain amounts to this, viz.,—"All the reform required is a reformation among ourselves, by doing our duty, and by separating ourselves from those few among us who do not conduct themselves as Christians and gentlemen."

Secondly, as to a change of the Court of Examiners.

Any candid person who is at all conversant with this matter will acknowledge the large amount of good which has resulted from the Act which came into operation in the autumn of 1815, as carried out by the Court of Examiners at Apothecaries' Hall—a Court matured by the experience of thirty-eight years; and although continued by a succession of examiners, yet only by such changes as illness or death must evidently create, without materially diminishing the advantage of experience. If this efficient Court be changed, will it not be placed chiefly in the hands of medical men of the same grade, wanting the advantage of long experience?

I consider, if the present Court were to solicit the aid of Professors of some of the collateral branches of Medicine, that it would be then improved.

Thirdly, of registration.

May I be permitted to ask, if your Lordship is aware that a list of the Fellows and Members of the Royal College of Surgeons of England is annually printed, and may be procured for a very trifling sum? also that a list of the Licentiates of Apothecaries Hall is published, as well as a list of the Fellows, etc., of the College of Physicians?

What advantage, then, can accrue from a more combined form of registration, to people who do not avail themselves of the facilities they now possess of knowing who are properly qualified Medical Practitioners?

Let me call to your Lordship's recollection the prosecutions against the late Mr. St. John Long, and the high testimonials he obtained, even after his first prosecution, from the higher classes in England, including the aristocracy.

If there be persons of acknowledged education and high character, who will not even take the trouble to inquire into the qualifications of medical men, but will resort to empirics for relief from suffering, and that after their empiricism has been exposed by the law of the land, of what use can any new form of registration be?

Of the lower orders of mankind in England, many are compelled to seek medical aid of those from whom they can obtain it; most frequently they are induced to do so by their proximity to a Practitioner.

Under the feeling that I would not do anything but in the most ingenuous manner, both towards your Lordship and towards the Profession, I will, with your Lordship's permission, solicit the periodicals to publish this letter.

I have the honour to be, my Lord, your Lordship's most obedient and humble servant,

GEORGE KELSON, F.R.C.S., L.A.C.

To the Right Honourable the Earl of Aberdeen,
K.T., etc., etc., etc.

Downing-street, June 17, 1853.

SIR,—I am desired by Lord Aberdeen to thank you for your letter upon the subject of Medical Reform; and to say, that His Lordship has no objection whatever to your publishing that letter, as you propose.

I have the honour to be, Sir, your obedient servant,

C. G. DAWKINS.

George Kelson, Esq., F.R.C.S.

FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

THE BILL OF THE PROVINCIAL MEDICAL AND SURGICAL ASSOCIATION.

[To the Editor of the Medical Times and Gazette.]

SIR,—We are instructed by the Faculty of Physicians and Surgeons of Glasgow to forward to you for publication in your first Number of the *Medical Times and Gazette*, the enclosed Memorial to the Right Honourable the Earl of Aberdeen, transmitted to Mr. Hastie, the Member for Glasgow, for presentation; and to inform you, that a similar Memorial to Lord Palmerston was also transmitted for presentation. We are, &c.

HILL, DAVIDSON, HILL, and CLARK.

1, South Frederick-street, Glasgow,
15th June, 1853.

TO THE RIGHT HONOURABLE THE EARL OF ABERDEEN, FIRST LORD OF HER MAJESTY'S TREASURY.

The Memorial of the Faculty of Physicians and Surgeons of Glasgow

Showeth—

That your Memorialists are informed that a Bill, a copy of which they have received, is about to be introduced into Parliament, having for its object, "to produce uniformity of medical education and qualification, and for the registration of those licensed to practise in medicine."

That your Memorialists have long been anxious for a measure which should effect these objects; but they object to the details as embodied in the Bill in question, upon the following grounds:—

1st. Your Memorialists object to the proposal of a double examination being necessary to entitle to registration. This is uncalled for, because the licence of the National Board declares the individual possessing it fully qualified to practise; and therefore a second examination can only subject him to unnecessary expense and annoyance, while a possible rejection by the second Board might lead to collision and discord.

2ndly. Your Memorialists cannot help noticing and objecting to the injustice done to the many distinguished schools of medicine throughout the empire, by permitting the Licentiates and Graduates of Oxford and Cambridge to register without further examination, while the Graduates of all other universities, however distinguished, and where regular courses of medical education are given, which, it is well known, cannot be obtained either at Oxford or Cambridge, are obliged to undergo two examinations.

3rdly. The exclusion of the whole of the Scotch Universities from almost every privilege of the Bill contrasts strongly with the above-mentioned exclusive privileges conferred on the Universities of Oxford and Cambridge, and appears to your Memorialists to demand that reconsideration which a sense of justice will doubtless obtain for it.

4thly. The proposal to enforce a new Registry every year, under severe penalties, appears to your Memorialists objectionable, especially in remote districts. Exclusion from the Register from accidental oversight might thus not only subject a regular practitioner to heavy pecuniary penalties, but would also exhibit him to the public as both unqualified and irregular.

5thly. That while your Memorialists approve of those penal clauses in the Bill which have for their object to put down irregular practitioners, and are aware of the necessity of some check on the disgraceful conduct even of some who are legally qualified, they are averse to constitute the Councils judges of such matters, or to compel individuals, or even Corporations, to be prosecutors. Such cases should be taken up by the public prosecutor, the sole duty of the medical Corporations being to give due information of the offence committed.

6thly. Were the Bill in its present shape becoming law, your Memorialists conceive that great injustice would be done to the Faculty of Physicians and Surgeons, and much disrespect shown to the city of Glasgow.

It is thereby proposed that the Edinburgh Royal Colleges should have twice as many representatives in the National Council as the Glasgow Faculty. Your Memorialists decidedly object to such a proposal. The great and growing

importance of Glasgow, the value of her Medical School, and the ancient legal rights and privileges of the Faculty, in no respect inferior to those of the Royal Colleges of Edinburgh, all require and make it reasonable and necessary that the representatives of the two cities in the National Council should be equal in number.

Moreover, although there are two Royal Colleges in Edinburgh, yet one of these—the Royal College of Physicians—has never been a licensing body, the Royal College of Surgeons being alone entitled to exercise that privilege; and with that Royal College the Faculty have always claimed and possessed a full equality. By enacting that the Royal College of Physicians of Edinburgh shall send the same number of representatives to the National Council as each of the other two bodies, a preponderancy of influence would be given to Edinburgh most injurious to the Faculty of Glasgow.

7thly. For the same reasons your Memorialists maintain, that the examination of candidates for licence should regularly take place in Glasgow as well as in Edinburgh, and that, in the National Board of Examiners, the members from each city should also be equal in number.

Your Memorialists have therefore respectfully to crave, that Her Majesty's Government refuse their support to the measure in question, till a remedy is applied to the evils complained of.

Signed and sealed in name and on behalf of the Faculty, this 31st day of May, Eighteen Hundred and Fifty-three Years. (Signed) A. D. Anderson,
President.

CHARING-CROSS HOSPITAL.

The following notice has been placed in the Student's library by the Medical Committee:—

(Copy.)

"The Committee Managers of the Medical School have received a communication, dated 2nd June, referring to circumstances which have lately occupied their serious attention.

"Making, on this occasion, every allowance for the misapprehension under which the communication was written, the Committee state, that their measures are at all times governed by a desire for the welfare of the school, the sound professional instruction of the students, the just fulfilment of the expectations of the examining bodies by whom the medical schools are recognised. And they hereby intimate, that, if any students be inclined to complete their studies elsewhere, in either or all of the classes to which they have entered here, they shall be at once free to do so; and there shall be returned to them such an amount of the fees which they have paid, as shall be proportionate to the portion of the lectures unfinished and uncertified in the schedules.

"The production of their schedules will suffice for determining the respective amounts.

(Signed) "Robt. J. Newman, Clerk.

"Charing-cross Hospital, 11th June, 1853."

REVIEWS.

Memorandums made in Ireland in the Autumn of 1852. By John Forbes, M.D., F.R.S. In 2 vols. London: Smith, Elder, and Co. 1853.

The success which attended the "Physician's Holiday," has, no doubt, prompted Dr. Forbes to give to the public the results of his observations on a country which, although geographically and politically close to our own, is perhaps less known to English travellers than Germany or Switzerland. The present work of Dr. Forbes, not being devoted to medical subjects, does not claim any extended notice at our hands; indeed, the author seems rather to avoid medical subjects in these volumes. But, to all those who are interested—and who is not?—in the scenery, the people, and the statistics of Ireland, Dr. Forbes's pages will be perused with pleasure and instruction. His Memorandums display the taste of the scholar and the benevolence of the philanthropist, and are written without any party bias whatever. The condition of the poor is described as being considerably meliorated in late years; and the progress of temperance doctrines, although not so rapid as was once expected, appears to have worked a very beneficial change already upon the manners of the people. The extensive emigration which has recently taken place from Ireland to distant lands, has greatly diminished its population; but the emigrants themselves have been well satisfied with the change, and many of the present inhabitants of the soil are preparing to follow their steps. On the whole, Dr. Forbes represents the condition of the Irish people as being in an improving state, and he speaks hopefully for the future.

The book is exceedingly well got up, and is illustrated by some beautiful engravings, and by a map illustrative of the route described.

A Naturalist's Rambles on the Devonshire Coast. By Philip Henry Gosse, A.L.S. Pp. 441. London: Van Voorst. 1853.

This is a very pleasant book for all lovers of natural history. Mr. Gosse tells us, that he repaired to the coast of Devonshire for the restoration of his health, and, during a residence there of several months, he employed himself in examining the various productions of the coast. Although the geological and mineral structure of the country is well described, and the grand features of the scenery very graphically pourtrayed, the author appears to have taken especial pains to delineate the structure and the habits of the lower tribes of animals, or those which are included in the invertebrated classes. Amid the great variety of objects described by Mr. Gosse, we may call attention in particular to the actiniæ or sea-anemonies, the medusæ or jelly-fishes, and the different tribes of corallines, zoophytes, and sponges. All these, and many more, are accurately and scientifically treated in the letter-press portion of the work, and are brought before the eye in a vivid manner by a number of beautiful representations of the objects themselves; and we are informed, and, no doubt, most truly, in the Preface, that the plates have all been drawn from living nature, with the greatest attention to accuracy. We can strongly recommend the work as a most pleasing companion to the seaside, and as combining, in a remarkable manner, the *utile* with the *dulce*.

Observations on the Medicinal Springs of Harrogate. By George Kennion, M.D. Pp. 31. London: Groombridge and Son. 1853.

We were in some doubt, when we began to peruse this little *brochure*, whether it was intended for the public or the Profession; but the delicacy with which the author refers to certain complaints which are not fit to be mentioned to "ears polite," induces us to believe that it is not intended—at least, exclusively—for medical perusal. "These waters," says Dr. Kennion, "are useful in many cutaneous diseases, in rheumatism and gout, and frequently also in other complaints to which I *need not here allude*," doubtless from the fear of shocking the nerves of his lady readers.

Some chemical analyses of the Harrogate waters are given in this work; but we confess our inability to understand the reasoning on which Dr. Kennion founds his differential appreciation of the merits of the various springs. Thus, in one of the springs (that of Starbeck), we find in 145·75 grains of solid matter, 3 grains of bicarbonate of soda, or rather more than *one grain* of soda, the other ingredients being chloride of sodium, sulphate of soda, chloride of calcium, and chloride of magnesium; and yet Dr. Kennion tells us, that the waters of this group are distinguished for their *alkalinity;* "and hence," says he, "the advantage of these springs." Surely one grain of soda, contained in a gallon of water, cannot make a spring very alkaline. But the work is evidently not intended for our perusal; and the task would be like breaking a butterfly upon a cart-wheel, to expose the truisms in which it abounds, and the crudities with which they are mingled.

St. Marylebone General Dispensary.—At the last meeting of the Governors, Dr. Armitage was unanimously elected to fill the vacant office of Physician.

The Metropolitan Free Hospital.—The annual dinner of this Institution was held on Tuesday evening at the London Tavern, the Lord Mayor in the chair. The subscriptions amounted to nearly 2000*l*.

GENERAL CORRESPONDENCE.

PRESERVATION OF VACCINE LYMPH.

[To the Editor of the Medical Times and Gazette.]

SIR,—Your Correspondents, "D. E.," "A Vaccinator under the Act," and "An Old Subscriber," severally complain, in late numbers of your Journal, of the difficulty of obtaining good lymph when it is wanted; while the last-mentioned Correspondent refers to a method of preserving lymph which, I think, is open to objection. They all very properly agree, that this subject of supply must not be left out of consideration in the framing of the new Vaccination Bill.

May I be allowed to draw attention again to some remarks I published in your Journal, (Vol. XXI., pp. 227, 248, and 267,) on the use of and mode of employing pure glycerine in the preservation of vaccine lymph. I will only add, that subsequent experience has tended fully to confirm the value of the suggestion; and that I have had the pleasure of showing to the Presidents of the London Colleges of Physicians and Surgeons, a case successfully vaccinated with lymph preserved for upwards of six months in this way. I am, &c. R. R. CHEYNE.

43, Berners-street.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Dr. COPLAND, President, in the Chair.

A CASE OF PERFORATING ULCER OF THE ŒSOPHAGUS, WHICH CAUSED DEATH BY PENETRATING THE AORTA.

By W. H. FLOWER,

Curator to the Middlesex Hospital Museum.

[Communicated by CAMPBELL DE MORGAN, Esq.]

THIS was the case of a painter, aged 51, who had, an hour previously, suffered from profuse hæmorrhage from the mouth, the blood being bright and frothy; syncope supervened, in which state he was brought to the hospital. He was tall, well-made, and muscular; but the countenance was death-like, pulse imperceptible, and there was absence of consciousness. About a week previously, he had complained of a deep-seated pain at the top of the sternum, shooting to the spine. Admitted under Dr. Hawkins, he was placed in bed, ice put into the mouth, and large doses of acetate of lead were administered. Slight reaction ensued. The next morning, at half-past nine, the pulse was 100, firm, steady, though small. On auscultation, free inspiration was heard in every part of the chest, except the upper lobe of the left lung, where the respiratory murmur was deficient; there was increased vocal resonance, and some dulness on percussion in this region. At ten a.m. a fresh attack of hæmorrhage supervened, which proved fatal. On examining the body, fifty-three hours after death, a few old adhesions were found at the apices of both lungs, with a few crude tubercles in the upper lobe of the left; the remaining portion of the lungs was much blanched. The heart was loaded with fat, but otherwise healthy; no coagula in any of the cavities. The stomach contained a clot of blood, which formed a complete cast of the organ; round the cardiac orifice were four irregular patches of erosion, or fissures in the mucous membrane, involving partly the stomach, and partly the œsophagus. About three inches above the cardiac orifice, on the left side, was a perfectly circular opening, three inches and a half in diameter, with slightly elevated edges, which were sharp and clean, as if cut with a punch. It bore a strong resemblance, on a small scale, to the perforating ulcer so frequently met with in the stomach. On the inner surface of the aorta, at the termination of the descending portion of the arch, nearly corresponding with the ulcer in the œsophagus, but on a somewhat higher level, was an irregular opening, with ragged edges, formed by the projecting and torn lining membrane. At this spot the coats of the artery were much thinner than elsewhere. About half an inch above was a patch of atheromatous deposit, the centre of which had advanced to calcification. The opening in the aorta, and that in the œsophagus, communicated freely. The duodenum contained a loose coagulum, and the ilium and large intestine contained much semi-fluid blood. The jejunum was, however, empty. The other organs were apparently healthy. The author then proceeded to make some remarks, observing, that cases of communication between the aorta and œsophagus, the result of aneurism, were not rare, nor were those arising from ulceration of the œsophagus, from tuberculous or malignant disease; but he believed that cases corresponding to the one just detailed had been rarely described. Reference was made to the descriptions by Cruveilhier and Rokitansky of perforating gastric ulcers, with the object to show that these authors had not met with cases similar to the present one; and a quotation was read from Albers, who had described the spreading of ulcers of the œsophagus into the aorta. A case mentioned by Van Doeveran was also quoted, in which a large ulcer of the œsophagus had destroyed the wall of the aorta, and the stomach was found quite distended with blood. In conclusion, the author thought the present case one of great pathological interest, exhibiting an example of an ulcer of the œsophagus very rarely met with, and remarkable for having advanced rapidly, without spreading in width, through a considerable space of loose cellular tissue, and finally terminating its course by perforating a tissue so little liable to ulceration as the coats of a large artery.

OBSERVATIONS ON THE STATE OF THE BLOOD AND THE BLOODVESSELS IN INFLAMMATION.

By. T. WHARTON JONES, F.R.S., etc.

The author, after alluding to the objections raised by some observers to the conclusions respecting the character of the inflammatory process in mammifera, from experiments upon cold-blooded animals, refers to his observations upon the pulsation of veins, as seen in the circulation of the wing of the bat, and published in the "Philosophical Transactions." He affirms, that there will be found similarity in the inflammatory process in the two classes of animals, and that, with proper precautions, we may accept the information afforded by microscopical examinations from both. He then describes at some length the effects produced upon the circulation by the complete division of the bloodvessels. An artery, on being cut across, becomes constricted upwards in the direction of its trunk, and downwards in the direction of its ultimate ramifications; and, so far as this constriction extends, the flow of blood in the vessel is arrested. In a minute or two, relaxation of the wall of the artery, and dilatation of its bore, are observed to take place, and then we find, that, in the upper part of the artery, the flow of blood becomes re-established as far down as the first considerable branch proceeding from it above the place of section. Below the wound a retrograde current is kept up in the cut artery, through the medium of an anastomosing vessel; but this retrograde stream passes off in a direct channel by branches leading from the artery. The retrograde stream flows more or less sluggishly, and the blood is loaded with red corpuscles. The author has not found veins become constricted after section like arteries. In the upper segment of a divided vein, there is no further flow of blood up to the first considerable branch which joins the vessel above the wound. From the vein below the place of section, the blood which enters in a natural direction by one set of radicles flows out in a retrograde course by another set. Internal clots are formed by accumulation of blood within the cut ends of the artery. The effect on the circulation of the part to which the divided vessels lead is, the blood in the last arterial ramifications, in the capillaries, and in the venous radicles, flows tardily, and becomes loaded with red corpuscles, which aggregate together. In some of the vessels, there takes place actual stagnation of the aggregated corpuscles. This effect is explained by the circuitous route which the blood has to follow through anastomosing branches to arrive at the last arterial ramifications; the blood-corpuscles are allowed to aggregate in consequence of diminished *vis à tergo*. The author believes that inflammatory redness may depend upon two causes—a stagnation of the blood, as commonly described, and also upon an increased rapidity of the flow through dilated arteries. He mentions the effect of the division of the ischiatic nerve in promoting the disappearance of inflammatory redness in the web of the frog's foot, by causing a yielding of the coats of the arteries, and an increase in their calibre. He believes that this depends upon the section of the filaments of the sympathetic nerve.

A paper was then read

ON PRIMARY AND SECONDARY FIBRINOUS DEPOSITS.

By HENRY LEE.

Fibrinous effusions into internal organs have not been distinguished, on the one hand, from effusions of lymph, and, on the other, from tubercular deposits; and the author relates cases where the disease was noticed both in the veins and in the substance of the lungs. The separation of fibrin from the other portions of the blood answers many useful purposes in the processes of healthy reparation after injuries. When a bloodvessel is divided, one im-

portant element in restoration is the separation of the fibrin, which agglutinates the divided edges. Fibrin also furnishes a capsule to foreign bodies introduced into the circulating system. The author then proceeded to relate the particulars of a case of fatal hæmorrhage from the umbilicus, in consequence of the non-closure of the umbilical vein and one hypogastric artery. The dissection was minutely described, and he compared the want of power here displayed with the phenomena witnessed in certain cases of erysipelas and diffuse cellular inflammation. When once the morbid deposition has been communicated to the blood, it matters not in what part of the vascular system the deposit occurs, the essential characters and subsequent changes which it undergoes will be found strictly analogous. The author proceeded to illustrate the effects produced upon the blood by the admixture of different diseased secretions, by relating the particulars of some experiments upon the recently-drawn blood of the horse. He divides deposits of fibrin into primary and secondary, and draws these general conclusions:—1. That the blood may, under certain circumstances, deposit from itself a fibro-albuminous element, either in some of the larger vessels of the body, or in the structure of internal organs.—2. That the process is not of an inflammatory character, and may occur either with or without the intervention of a membrane.—3. That the changes in the blood which immediately precede such an action may be caused by the admixture of vitiated secretions.—4. That the deposit, when formed, is capable of undergoing various changes, which issue in the formation of purulent-looking fluid, and is capable, during these changes, of communicating irritation to surrounding fluids.

No discussion ensued on any of the papers.

The Society adjourned at the usual hour.

LAW INTELLIGENCE.

COURT OF QUEEN'S BENCH, June 22.

(Sittings at Nisi Prius, at Westminster, before Lord Chief Justice Campbell, and a Special Jury.)

SLANDER.—FENNELL *v.* ADAMS (CLERK).

This was an action to recover damages for certain slanderous words alleged to have been uttered by the defendent, and complained of by the plaintiff as prejudicial to his professional character.

The defendant pleaded "Not Guilty," and "justification."

Mr. M. Chambers, Q.C., Mr. Serjeant Wilkins, and Mr. Peterdorff, appeared for the plaintiff; the Attorney-General, Mr. Bramwell, Q.C., and Mr. Hall, were for the defence.

Mr. Chambers stated the case, from which it appeared that the plaintiff is a surgeon at Wimbledon, and is Medical Officer of an Institution there, called "The Maternal Society," of which the wife of the Rev. Mr. Adams, the defendant, was the Treasurer. The charge against the plaintiff was one seriously calculated to affect his professional reputation. The words complained of were to the effect, that the plaintiff had, in many cases, been very negligent in his attendance upon various females in their period of labour, and that several children had been, consequently, strangled in their birth.

To refute those charges, the learned gentleman called

The plaintiff, Mr. Edward Fennell, who deposed, that he is a surgeon residing at Wimbledon, and had been pupil of Dr. Stevenson, and of Dr. Sweetham. In 1834, he purchased Dr. Wright's practice at Wimbledon, and paid 1600*l.* for it; and he was subsequently appointed to the Kingston Union, and to "the Wimbledon Maternal Society." In 1849, he received a letter from the Hon. Mrs. Adams, Treasurer of the Maternal Society, and wife of the defendant, who is curate of Wimbledon. The letter contained general complaints, charging him (plaintiff) with neglect of the female patients, but not naming any particular case. He called on Mrs. Adams in consequence, and she then mentioned the case of Mrs. Gregory, who was the wife of the coachman of Mr. Lefevre. He (plaintiff) attended her in 1848 or 1849. She had an attack of puerperal fever after the confinement, which is the most severe complaint with which medical men have to contend. He felt it his duty to call in Mr. Parrott, and they consulted together as to the treatment. She sank under the complaint. Mr. Lefevre expressed his satisfaction with the treatment. There had been 385 cases of midwifery under his (plaintiff's) charge, and he had never lost any other patient. In the case of Mrs. Elsley, Mrs. Adams refused to pay him his fee of half a guinea. He wrote to her for an explanation, and received a letter in reply, which stated, that, according to the regulations of the Institution, a surgeon was not entitled to his fee, unless he attended the case personally. He had attended Mrs. Elsley, who was the wife of a labourer, in three confinements, and on the occasion in question Mrs. Riley was her nurse. He went to Mrs. Elsley immediately when he was called, and was told that his services would be required. He was at the time in attendance on a child named Roy, who was severely ill. When he arrived at Mrs. Elsley's he remained an hour in attendance, and finding the case was not pressing, he left, and went to see the child Roy, whose residence was within sight of Elsley's house. He (plaintiff) left word where he was going, and returned in twenty-five minutes to Mr. Elsley's. He then found the child born, and did what was necessary. There was a nurse and a midwife there at the time. The patient did well. He issued a circular, that it had never occurred to him to have a child "strangled in its birth." He had had cases of flooding of course, but never lost those cases. Plaintiff subsequently called to see Mr. Adams, but was informed by Mrs. Adams, that he did not wish to be mixed up in the case.

Plaintiff, in cross-examination deposed, that he had no recollection of the nurse at Elsley's having said to him, when he was leaving: "I hope you are not going to leave me, as you did the last time?" When he returned to Elsley's, he had only to remove the placenta. He did not hear Mrs. Elsley make any declaration, and he asked several women whether there was any truth in the statement; and he subsequently drew up an official declaration, according to their statements, for them to sign. He did not tell Mrs. Frost, that she would be punished if she refused to make the declaration before a magistrate. He attended Caroline Chester in two confinements; but could not recollect that he was present at the first of the births. At the second birth he did not remove the placenta. He was at the time in attendance upon another patient, who had a prior claim upon him, and he left to attend her before he removed the placenta. The woman might have said, upon his leaving: "Who shall we get?" and he might have said to her: "Who you can." When he returned, the placenta was still adhering. They called him up the next morning, at half-past five o'clock, and told him the woman was suffering, and asked him to give something to relieve her. He gave something, and called about nine o'clock, and removed the placenta. The plaintiff was then, in continuation of the cross-examination, questioned as to his attendance on Ann Dossett, Julia Rapley, Sarah Nicholls, Elizabeth Phipps, Mrs. Finch (who was 25 hours in labour), Mrs. Nicklebury, Mary Anne Frost, Mrs. Jordan (an Irishwoman), Mrs. Croach, and Mrs. Rapley. In those cases, the complaints principally were, that he (the plaintiff) was absent when the children were born, and a charge of neglect was imputed to him by the defendant's wife, and a further charge, that he (the plaintiff) was regardless, in such cases, of the claims and condition of the poor.

Mrs. Mary Savory, and other witnesses, including the late curate of Wimbledon, gave testimony in favour of the plaintiff, in his professional and private character.

The Attorney-General addressed the jury for the defence, and submitted that any allusions made to the plaintiff by the defendant were made at a meeting of the lady subscribers of the Maternal Society, at which that gentleman presided as chairman, and that they were of the nature of a "privileged communication," and, as such, not actionable. The learned gentleman denied that the defendant had expressed any charge against the plaintiff about children strangled in their birth, but admitted that he had charged the plaintiff with gross neglect in the management of the midwifery cases.

In support of the defence, Caroline Chester, Mary Preedy, Elizabeth Elsley, Maria Riley, Mary Stacey, Sarah Nicholls, Elizabeth Phipps, Mary Anne Elms, Mary Ann Hicklebury, Mary Anne Frost, the Rev. Mr. Adams (the defendant), and Mrs. Holroyd, wife of Mr. Commissioner Holroyd, were called, and deposed to what passed at the meeting of lady subscribers to the Maternal Society, of which she was one, but had no recollection of anything having been said at that meeting by the defendant about strangled children.

The other female witnesses were principally those who had been confined by the plaintiff, and they spoke to certain cases in which he had not been present at the moment of the birth of the child. It appeared, however, that he was in the neighbourhood, and came soon afterwards.

Dr. Arnott gave evidence, that it was not good practice to leave the placenta in the uterus without placing the patient in experienced hands; but he stated, that it was impossible for any medical man to foretel exactly the moment when a child would be delivered.

Dr. Murphy gave evidence of a similar character.

Mr. Montagu Chambers replied on the evidence, and urged upon the jury, that the communication casting imputations on the

plaintiff was not a privileged communication; that it was a communication calculated to do the most serious injury to the plaintiff; and that he (the plaintiff) was therefore entitled to reparation in damages at their hands.

Lord Campbell summed up. The case was certainly a most painful one on the one side and the other. The witnesses on both sides had conducted themselves in a most respectable and creditable manner; and it did not appear that there had ever been a quarrel between the plaintiff and defendant, neither did it appear that the defendant had ever entertained ill-will to the plaintiff. Plaintiff, it appeared, had attended between four and five hundred midwifery cases in the course of his practice, and had never, he deposed, lost but one case, in which death resulted from puerperal fever setting in. And certainly, with regard to the cases of the female witnesses who had that day been examined, there did not appear to be any serious amount of evidence of neglect on his part. He attended when called, and, perhaps, had other pressing cases when he left to go elsewhere. The questions for the consideration of the jury would be,—whether the communication of the defendant was a "privileged communication," and whether he had made out his pleas of "Not Guilty" and "justification." If they found, that it was "a privileged communication," they would pronounce the defendant "Not Guilty," and the plaintiff would not be entitled to any damages; and, if they found, that defendant had not made out his plea of "justification," they would then give a verdict for the plaintiff, which would entitle him to the costs of the trial, but not to damages.

The jury conferred together, and returned a verdict for the plaintiff, on the plea of "justification;" and for the defendant, on the ground that the communication was "a privileged communication," and, therefore, not a guilty one.

Lord Campbell: I am perfectly satisfied, gentlemen, with your verdict, and I am happy to say, that by it both parties go out of Court with their characters re-established.

The trial occupied the whole of the day, up to past seven o'clock. A great number of Medical gentlemen were subpœnaed on both sides, among whom we noticed Dr. Robert Lee, Dr. Tyler Smith, Dr. Semple, Dr. Tanner, Mr. J. W. Fisher, and Mr. Parrott, of Clapham; but none of these were called.

MEDICAL NEWS.

University College and the New Charter.—A Deputation from University College and a Deputation from the Graduates' Committee had interviews yesterday with Viscount Palmerston, at the Home Office, on the subject of the College of Physicians Bill. The Deputation from the College consisted of F. J. Wood, LL.D. (Council); W. Sharpey, M.D. (Professor and Dean of Medical Faculty); Mr. C. C. Atkinson (Secretary); Francis Broot, M.D. (Council); and Mr. John Wood (Chairman of the Board of Inland Revenue, Member of College Council). The Deputation of the Graduates' Committee consisted of F. C. Wood, LL.D. (Chairman); I. R. Quain, LL.B.; C. J. Foster, LL.D. (Honorary Secretary); J. Storrar, M.D.; T. Snow Beck, M.D., F.R.S.; W. Shaen, M.A. (Secretary); W. F. Mackenzie, M.D.; and Robert Barnes, M.D. (Hon. Med. Secretary). The Deputations were accompanied by Mr. Cheetham, M.P.; Mr. A. Pellatt, M.P; Mr. Hadfield, M.P.; Mr. Milligan, M.P.; and Mr. F. Crossley, M.P.

Royal College of Surgeons.—The following gentlemen having undergone the necessary examinations for the diploma, were admitted Members of the College at the meeting of the Court of Examiners, on the 17th inst.:—

Eves, Charles Thick, Cheltenham.
Faulkner, William, Drury-lane.
Godwin, James, Romsey, Hants.
Lofthouse, Richard Chapman, Bradford, Yorkshire.
Lovell, James, Canterbury.
Newbold, Ambrose, Carnew, Wicklow.
Oakes, Arthur, Birmingham.
Palmer, William John, Red Lion-square.
Taylor, Edmund, Manchester.
Vernon, Edward, Kensington.
Whyte, Nicholas Conlethus, Robertstown, Kildare.

At the same meeting of the Court, Mr. Gilbert Lennox King passed his examination as naval assistant.

Royal College of Surgeons.—New Fellows.—The following members of the Royal College of Surgeons of England were admitted to the Fellowship at the meeting of the Council on the 16th inst.:—

Name.	Residence.	Date of Diploma.
Anderson, Wm. A.	Brompton-row.	June 1, 1835.
Ashton, Thos. M.	Ormskirk, Lancashire.	May 10, 1837.
Barker, John	Coleshill, Warwickshire.	Nov. 4, 1836.
Barlow, Wm. F.	Westminster Hospital.	Jan. 19, 1838.
Beard, F. Carr	Welbeck-street.	March 2, 1838.
Blasson, Thomas	Billingborough, Lincolnshire.	Aug. 5, 1825.
Bramley, L.	Halifax.	Mar. 31, 1837.
Bryan, Edward L.	Hoxton.	Mar. 11, 1836.
Colledge, T. R.	Cheltenham.	Jan. 1, 1819.
Cornelius, Jas. C.	St. George's Villas, Canonbury.	July 28, 1835.
Courtney, Sydney	Leatherhead.	May 21, 1830.
Crabb, Alfred	Poole.	May 14, 1838.
Cumming, Alex.	Army, Chatham.	Nov. 19, 1813.
Dent, Robert	E.I.C. Service.	May 12, 1834.
Ellison, King	Liverpool.	Dec. 23, 1834.
Faircloth, J. M. C.	Northampton.	April 15, 1836.
French, John G.	Great Marlborough-street.	June 18, 1827.
Guthrie, C. W. G.	Berkeley-street.	April 17, 1838.
Harris, Samuel	Reading.	Dec. 1, 1815.
Harris, William	Worthing.	March 2, 1832.
Hester, James T.	Oxford.	June 1, 1821.
Julius, F. G.	Richmond.	April 22, 1833.
Langmore, J. C.	Oxford-terrace.	Sept. 12, 1836.
Mash, James	Northampton.	Nov. 7, 1823.
May, E. Curtis	Tottenham High Cross.	Feb. 12, 1819.
Minshull, John L.	Liverpool.	Oct. 3, 1823.
Mouat, James	Army.	Aug. 29, 1837.
Potter, Henry G.	Newcastle-upon-Tyne.	May 25, 1832.
Pughe, John	Aberdovey.	Oct. 27, 1837.
Radford, Thomas	Cambridge-terr., Hyde-park.	April 3, 1833.
Rigby, John	Chorley, Lancashire.	Oct. 19, 1821.
Rogers, Arnold	Hanover-square.	April 16, 1830.
Skevington, John	Ashbourne, Derbyshire.	Feb. 17, 1832.
Stephens, John	Shrewsbury.	May 21, 1838.
Vachell, Chas. R.	Cardiff.	May 11, 1835.
Walker, William	St. John-street-road.	July 15, 1836.
Wells, Robert	Bennondsea, Kent.	March 5, 1830.
Wilkinson, W. C.	Spalding, Lincolnshire.	Aug. 5, 1825.
Winchester, J. W.	Bombay Army.	May 6, 1833.

The following gentlemen were, at the same time, admitted *ad eundem* members of the College:—

Lodge, Robt. Thos., Liverpool	Licentiate of the Faculty of Glasgow.	May 1, 1843.
Wolstenholm, G., Bolton	Licentiate of the Faculty of Glasgow.	Nov. 17, 1837.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, June 16, 1853:—

Brooks, James Henry, Henley-on-Thames, Oxon.
Goff, George Romaine, Headingley, Yorkshire.
Lomas, David Haigh, Manchester.
Sharman, Malim, Birmingham.
Skipton, Samuel Stacy.
Stone, Joseph Hutchinson, Wentworth, Yorkshire.

APPOINTMENTS.

Army.—94th Foot: Assistant-Surgeon William Brown, from the Staff, to be Assistant-Surgeon, Vice Westall, deceased; Hospital Staff: John Henry Porter, gent., to be Assistant-Surgeon to the Forces, vice Brown, appointed to the 94th Foot.

Militia.—North Devon Yeomanry Cavalry: Charles Richard Jones to be Assistant-Surgeon, vice Coudray, resigned.

Naval.—Surgeon John H. Patterson (1845), recently serving in the Spiteful steam-sloop, to the Vesuvius paddlewheel steam-sloop at Portsmouth.

DEATHS.

Gibson.—May 18, at Dalston, aged 28, John Gibson, Esq., surgeon, of consumption.

Stead.—June 15, aged 34, much and deservedly lamented, Henry C. M. Stead, Esq., surgeon, Harrogate; M.R.C.S. Eng. 1841; L.S.A., 1840.

Tinney.—We are sorry to have to record the death of Mr. W. H. Tinney, the resident medical officer of the Bloomsbury Dispensary, who died on the 21st., from fever, caught in the discharge of his duties. He was greatly respected, and had discharged the duties of his office most thoroughly and conscientiously.

Testimonial.—The inhabitants of Isleworth, desirous of testifying their appreciation of the eminent services of Horatio Grosvenor Day, Esq., Surgeon, during many years of office as

churchwarden, as well as for his uniform and constant exertions in promoting their general and individual welfare, invited that gentleman to dine with them on Wednesday week, at the Northumberland Arms Inn. After the usual loyal toasts had been given, the Chairman, in the name of his fellow-parishioners, begged Mr. Day's acceptance of a portrait of himself, an excellent likeness, and a magnificent candelabrum, containing a vase for flowers in the centre, which was universally admired.

Sale of the Library of the Late Dr. Pereira.—The sale of the miscellaneous and professional works of the late Dr. Jonathan Pereira, took place on Friday and Saturday of last week, at the auction-rooms of Messrs. Sotheby and Wilkinson. The property consisted of a large collection of valuable works on the medical and physical sciences, of microscopes, polariscopes, etc. The attendance at the auction was very large, consisting in great part of the pupils of this physician, and the price realised by some of the books was very high.

Mortality Notabilia.—The public health is now in a more satisfactory state. The weekly deaths registered in London were, at the beginning of April, above 1300; in May they averaged more than 1100; in the week that ended last Saturday the number fell to 924. In the ten weeks corresponding to last week, of the years 1843-52, the average number was 896, which, if raised in proportion to increase of population, becomes 986. Hence it appears, that the actual mortality of the week is less than the estimated amount by 62, a result more favourable than has been obtained during a long period. The number of fatal cases arising from typhus, continued remittent fever, &c., which, in the previous week, (ending 11th June,) was 59, declined last week to 35; those from small-pox from 6 to 2; measles decreased in the two weeks from 25 to 20; phthisis (or consumption) from 163 to 131; pneumonia from 62 to 45. On the other hand, scarlatina rose from 30 to 39; hooping-cough from 58 to 67; bronchitis from 54 to 59. Viewing the fatal diseases in the groups in which they are classified, it is seen, that those affecting the respiratory organs alone are in excess of the corrected average. But the nearly constant decrease of this class (which does not include phthisis) during the last seven weeks, is shown in the following numbers:—224, 199, 174, 162, 129, 136, and 127.

DEATHS *in the Metropolis for the week ending Saturday, June* 18, 1853.

Causes of Death.	June 18. 0	15	60	All Ages.	Sum of Ten Weeks.
All Causes	440	303	174	924	8960
Specified Causes	438	303	173	914	8906
1. Zymotic (or Epidemic, Endemic, and Contagious) Diseases ...	172	30	6	208	2041
Sporadic Diseases:					
2. Dropsy, Cancer, and other Diseases of uncertain or variable seat ...	5	22	12	39	420
3. Tubercular Diseases	58	116	5	179	1763
4. Diseases of the Brain, Spinal Marrow, Nerves, and Senses ...	53	29	24	106	1103
5. Diseases of the Heart and Blood-vessels	3	15	11	29	326
6. Diseases of the Lungs and of the other Organs of Respiration ...	49	35	43	127	1022
7. Diseases of the Stomach, Liver, and other Organs of Digestion...	20	25	14	59	626
8. Diseases of the Kidneys, etc. ...	1	4	3	8	116
9. Childbirth, Diseases of the Uterus	...	5	...	5	88
10. Rheumatism, Diseases of the Bones, Joints, etc.	2	3	2	7	75
11. Diseases of the Skin, Cellular Tissue, etc.	...	1	1	2	8
12. Malformations	4	...	...	4	28
13. Premature Birth and Debility ...	22	2	...	24	226
14. Atrophy	32	2	6	40	182
15. Age	...	...	39	39	415
16. Sudden	3	1	2	6	112
17. Violence, Privation, Cold, and Intemperance	14	13	5	32	355
Causes not Specified	2	...	1	10	54

Mortality in Public Institutions for the week ending June 18:—

	Males.	Females.	Total.
Workhouses	56	47	103
Military and Naval Asylums ..	8	1	9
General Hospitals	27	9	36
Hospitals for Special Diseases .	2	1	3
Lying-in Hospitals	..	..	..
Lunatic Asylums	6	5	11
Military and Naval Hospitals..	6	..	6
Hospitals for Foreigners, &c. ..	..	2	2
Prisons	..	3	3
	105	68	173

BOOK RECEIVED.

Researches on the Primary Stages of Histogenesis and Histolysis. By Robert D. Lyons, M.B., Honorary Professor of Anatomy to the Royal Dublin Society, etc.

TO CORRESPONDENTS.

M.B., etc., must attend a course of lectures on Comparative Anatomy, or he will be ineligible for the appointment.

We have received an interesting communication from *Mr. E. W. Witten, of St. Bartholomew's*, upon the table-moving experiments; but, as it contains no new facts, to publish it would merely be giving too much importance to the folly of which it treats.

M.R.C.S and L.A.C.—The fee named is the proper one, as allowed by law.

The offer of *Mr. J. Smith* is declined with thanks.

In answer to numerous inquiries about "Micrometry," etc., Dr. Boon Hayes is preparing a practical lecture on this subject, which will appear as an appendix to the first part of this present course, after Section 57. He hopes to find time to answer his other Correspondents next week.

A. B., Islington.—If your instrument is a Ross's make, you may depend upon the fault complained of resting with yourself. Read Section 56, Part I., of present Course.

Dr. McGrigor.—We regard the person named as an impostor, and consequently should advise that his idle talk be treated with contempt.

A Surgeon's Assistant will find that the medical school he mentions is a very respectable one, where he will be taught his profession thoroughly "*One Who has been Imposed Upon*" should remember what a billionth part of a grain really is. "If," says Dr. Simpson, "a single grain of sulphur, were divided, as the homœopathists use it and other drugs, into billionths, and if our common parent, Adam, when called into existence some 6,000 years ago, had then begun swallowing a billionth every second, and if he had been permitted to live up to the present time, doing nothing but swallowing night and day 60 billionths every minute, he would as yet have completed only a small part of his task. It would require him to work and swallow at the same rate for 24,000 years yet to come, in order to finish one single grain of a drug, which has little effect on his present descendants in doses of 25 or 50 grains. Yet the homœopathists believe, that a few of the sulphur billionths which Adam would have swallowed during these 30,000 years, would cure, forsooth, an attack of jaundice." We would also remind our Correspondent, that these quacks carry their delusions much further, and have doses far more infinitessimal than a billionth of a grain. But, of course, to reason with maniacs is absurd. Were homœopathy put down to-morrow, some other "pathy" would arise to fill its place, and to gull John Bull.

Erratum.—In our last week's publication, in the Paper on Sarcina Ventriculi, "R. Neale, M.D.," was printed, instead of "R. Neale, M.B."

COMMUNICATIONS have been received from—

Dr. Budd, King's College Hospital; John Hodgson, Esq., Northallerton; E. W. Witten, Esq.; Messrs. Hill, Davidson, Hill, and Clark, Glasgow; The President and Treasurer of St. Thomas's Hospital; R. R. Cheyne, Esq., Berners-street; Y. Z.; T. E. Amyot, Esq., Diss, Norfolk; Students; Joshua E. Adkins, Esq., Charing-cross Hospital; George Kelson, Esq., Sevenoaks; Dr. Waller, Finsbury-square; J. B.; A Foreign Surgeon.

INDEX.

A

Aberdeen, Marischal College and University of, 896
....., University and King's College, 486
Abernethian Society, the, reports of, 306, 458, 586
Aboriginal tribes of New Holland, 153
Abortion, charge of procuring, against two "surgeons," 485, 510, 522, 589, 641
Abscess of bone, 453
Abscesses, secondary, 105
Academy of Sciences, Paris, 461
....., the French, 179
....., the Royal, 513
Accident to Liebig, 437
Accouchement, the Queen's late, 526
Accoucheur to the Empress of France, 386
Achromatopsia, 387
Acne, treatment of, 47
Aconite, poisoning by, 103
Act, the Medical Charities, 587, 605, 613
Acute articular rheumatism, 196
Acute specific diseases, on the, by Dr. Jenner, 233, 250, 285, 311, 415, 463
Admiralty, the, and the assistant-surgeons, 206
Adulteration, 563
..... of lard, 231
Adulterations and impurities of drugs, 62, 163, 274, 374
Agamemnon, the, at Portsmouth, 886, 413, 437, 461
Albuminuria, 122
Aldis, C. J. B., M.D., cases, with remarks, 158
Alison, S. S., M.D., review, 558
Amputation at the knee-joint, 606
....., spontaneous, 405
Anasarca, 122
Anderson, W. J., Esq., review, 404
Aneurism, coagulation of the blood in, 581
Animals, chloroform to, 563
Anomalies of medical qualification, 372
Anonymous reviewing, 42
ANSWERS TO CORRESPONDENTS:—26, 52, 78, 104, 130, 154, 180, 206, 232, 258, 284, 310, 336, 362, 388, 414, 438, 462, 488, 514, 538, 564, 590, 642, 658
Antrum, drilling the, 201
Apothecaries' Hall, 24, 51, 77, 103, 128, 152, 205, 230, 256, 283, 307, 308, 385, 361, 386, 412, 436, 460, 486, 513, 536, 562, 588, 615, 641, 657
....., preliminary examination in classics and mathematics, 230, 307
Apothecary-Physicians, Dr. Crisp's, 123
APPOINTMENTS:—24, 51, 77, 103, 129, 152, 179, 205, 230, 256, 283, 308, 335, 361, 386, 412, 436, 460, 486, 513, 537, 562, 588, 615, 641, 657
Apprenticeship clause in the Act of 1815, 146
Aquatic vivarium, Regent's-park, 589
Arm presentation, 172
Army estimates, the, 251
..... Medical Benevolent Society, 513
..... statistics, 641
Arnott, James, M.D., review, 299
Arrest of continued fever by cinchonism, 109, 422
Arsenic in St. Vitus's dance, 405
Articles, editorial, 17, 40, 60, 92, 118, 142, 161, 192, 219, 248, 270, 291, 348, 372, 401, 427, 449, 473, 500, 526, 555, 577, 602, 633
Artificial membrana tympani, 408
Arts, the Society of, 641
Ascites, 277
....., iodine injections in, 123
Assistant-surgeons and the Admiralty, 206
....., naval, 222, 257, 435, 563
..... in the navy, condition of, 219
Assistants, medical, 281
Association, Hull Medical Protection, 325, 334
....., the Provincial Medical and Surgical, 476, 503, 653
Assurance Societies, Medical officers of, 638
Asylum, the Bloomingdale, New York, 252
..... for Idiots, 144
....., Norfolk County Lunatic, 21
Asylums, Hanwell and Colney Hatch, 129
....., the Lunatic, 461, 581
Aural disease, statistics of, 200

B

Babington, Dr., on the testimonial system, 402, 407
Bahamas, cholera in the, 300
Barbadoes, the yellow fever at, 179
Barclay, Dr., case of severe chorea, 548
....., A. W., M.D., on the treatment of fever, by large doses of quina, 31
Barlow, Mr. W. F., on fatty degeneration, 87, 468, 646
Baths and washhouses, public, 46, 221, 231
Beer, bad, or bad measure, 41, 413
Bennett, J. H., M.D., review, 19
Bequests, 309, 361, 537, 562
Berkshire Hospital, Royal, practice of medicine and surgery at, 498, 600
Berlin Medical Society, 51
Bethlem Hospital, 280, 373, 555
....., cases from, 420
..... and Sir A. Morison, M.D., 413
Bill, the Hackney Carriages, 635
...., the Vaccination, 402, 409, 411, 427, 437, 451, 560, 605, 607
Bird, Golding, A.M., M.D., remarks on prolapsus of the anterior wall of the vagina, 11
....., review, 354
Birmingham Gaol, suicide of a prisoner at the, 528
Births, Deaths, and Marriages in England, quarterly return of, 151
Bisulphuret of carbon, physiological effects of, 69
Bladder, gout as it affects the, 539
Blood-vessels of the lower extremities, wounds of, 591
Bloomingdale Asylum, New York, 252
Bloomsbury Dispensary, practice of medicine and surgery at, 632
Bon Vista, fever at, 110, 239
Board of Health, 386, 563
Boards of Guardians and their medical officers, 356, 582
Body-snatching, 276
Boils, treatment of, 47
Bombay, 387
..... Medical Establishment, 387
Bone, abcess of, 453
...., tubercle in, 453
Books received, 26, 52, 78, 104, 130, 154, 180, 284, 362, 388, 438, 488, 538, 564, 642, 658
Boons to medical men in the public service, 557
Borneo, 438
Botanical Society of London, 77
Bradford Infirmary, 589
Brain, the, 580
Breathing-movements in the two sexes, on the, 366
Brigham, W., Esq., Case of pulsating abdominal tumour, 470
Brodhurst, B. E., Esq., Contributions to orthopædic surgery, 594
....., on the use of mercury in hydrophobia, 185
Bronchitis, 507
Bronchophony, Skoda's theory of, 280
Brothers, rival, 616
Brown, J. B., Esq., on vaginal cystocele, or prolapsus of the anterior wall of the vagina and bladder, 394
Budd, Dr. G., Lectures on the organic diseases and functional disorders of the stomach, 363, 389, 465, 515, 565, 617
Burial grounds in the Metropolis, 362
Burmah, mortality among the troops in, 652
Burns and cicatrices, 261
Burrows and Kirkes, Drs., Illustrations of clinical medicine, 8, 489, 643
....., G., M.D., on the connexion of hemiplegia and chorea with valvular diseases of the heart, 135
Burt, J. T., B.A., review, 430

C

Cæsarian section, 266, 530
Caffre war, the, 257
Calamine, 275
Cambridge University, 587
Cancer Hospitals and their advertisements, 556
Cape, health of the army at the, 573
Carbuncle, 580
Carpenter, W. B., M.D., review, 13
Carter, R. B., Esq., review, 95
Case of Cæsarian section, 266, 530
..... conception before menstruating, 277
..... congenital absence of the rectum, 573
..... Mrs. Cumming, 309, 432
..... extra-uterine fœtation, 188
..... infantile convulsions, 368
..... injury to the head, 597
..... lykanthropia, 506
..... ovarian dropsy, 392
..... perforating sore of the duodenum, 355
..... pseudo-membranous stomatitis, 198
..... pulsating abdominal tumour, 470
..... rheumatic carditis, 55
..... sarcina ventriculi, 624
..... severe chorea, 548
..... Mr. Shorthouse, 324
..... spontaneous expulsion, 455
..... traumatic tetanus cured by chloroform, 506, 517
Case of tubular inflammation of kidney, 573
..... uterine hydatids, 210
Cases from the Royal Hospital of Bethlem, 420
..... in which chloroform may prove injurious, 443
..... pus is found in the urine, 337
..... of hæmorrhoids treated by nitric acid, 343
..... placenta prævia, 185, 623
....., with remarks, 158
Catalepsy, 1
Cataract, traumatic, in infants, 45
Cattle, pleuro-pneumonia in, 589
Cause of menstruation, 432
Causes of insanity, 563
Cells containing blood corpuscles, 606
Census of the United States, 25
Central London Ophthalmic Hospital, practice of medicine and surgery at, 117, 217, 497
Certificate system, the, and chaplains, 253
Chambers, Dr. R., inquest on, 413
Chances of life in railway travelling, 484
Chapman, H. T., Esq. review, 558
Charges, medical, 455, 478
Charing-cross Hospital, 636, 654
Charlesworth, Dr., memoir of, 296
Charter, the new, of the Royal College of Physicians, 291, 372, 432, 454, 477, 657
Chemist, a prescribing, 231
Chemistry, a course of lectures on organic, by Dr. A. W. Hofmann, 131, 144, 181, 236, 288, 340, 418, 491, 543, 621
Chest, City of London Hospital for Diseases of the, 59, 318
Children, Hospital for Sick, 335
Chirurgical Society, the Medical and, reports of, 97, 172, 202, 253, 303, 328, 380, 457, 480, 583, 639, 655
Chlorine in ulcerated sore throat, 407
Chloroform, 443
..... as an emmenagogue, 196
..... in place of tracheotomy, 380
..... in sympathetic vomiting, 252
..... in tetanus, 506, 517
..... to animals, 563
Cholera, the, 205, 461, 563, 589
..... in the Bahamas, 300
..... the prevention of, 279
..... contagion of, 197
..... in India, 187
Chorea, 135, 421
..... case of severe, 548
Christophers, J. C., review, 196
Chronic diseases of the heart, 45
Chuckerbutty, S. G., M.D., the connexion between rheumatism, pericarditis, and jaundice, 568
Cicatrices, burns and, 261
Cinchonism, on the arrest of continued fever by, 109, 422
City Commissioners of Sewers, 283
City of London Hospital for Diseases of the Chest, practice of medicine and surgery at, 59, 160, 318
Civil appointments, 51
Cleoburey, Mr., memoir of, 222

CLINICAL LECTURES, 1, 5, 53, 105, 135, 207, 261, 337, 363, 389, 439, 465, 489, 515, 539, 565, 591, 617
Clinical medicine, 651
....., illustrations of, 8, 489, 643
..... study of disease, 250
Club, medical, in London, 357
Coagulation of the blood in aneurism, 581
Coagulum, a detained, mistaken for a portion of retained placenta, 648
Cockle, John, M.D., review, 299
Cod-liver oil, phosphorus in, 197
Coffin practice, 590
....., Dr., poisoning by an agent of, 231
Colchicum, poisoning by, 59
Cold an anæsthetic agent, 531
College, Female Medical, 461
....., King's, 257, 309
....., the Medical Benevolent, 103, 161, 309, 413, 428, 451, 487, 513, 576, 633
..... Veterinary, 437
..... of Physicians, the Royal, 24, 205, 335, 383, 385, 427, 429, 433, 451, 475, 478, 500, 503, 508, 530, 533, 562
..... Surgeons, the Royal, 51, 103, 152, 205, 230, 283, 308, 361, 412, 436, 460, 486, 513, 536, 562, 588, 615, 640, 657
....., Ireland, 615
..... studentships, 640
....., University and King's, Aberdeen, 486
Collegiate elections, 640
..... prizes, the, 536
Collodium in inflammation of the epididymis, 506
Colney Hatch and Hanwell Asylums, 129
Colour-blindness, 387

Commission, Dublin University, 638
Committee, London Medical Reform, 588
Communications, original, 9, 11, 12, 31, 33, 35, 55, 56, 87, 109, 110, 137, 158, 159, 185, 187, 188, 189, 210, 239, 244, 266, 316, 343, 365, 366, 368, 392, 394, 420, 421, 422, 443, 468, 493, 517, 548, 568, 594, 623, 646
Compulsory vaccination, 413, 431, 456, 508, 638
Conception before menstruating, 277
Confectionery, poisoned, 179
Consumption and Diseases of the Chest, Hospital for, 25, 580
Connexion between rheumatism, pericarditis, and jaundice, 568
Contagion of cholera, 197
Contagious diseases 283
Continued fever, 422
....., on the arrest of, by cinchonism, 109
Conveyance of fever patients in public vehicles, 651
Convulsions, infantile, 368
Cooke, Wm., M.D., cases of haemorrhoids treated by nitric acid, 343
Copland, J., M.D., review, 18
Coppinger, J. J., M.D., paralysis—chorea, 421
Coralz, Dr. Thomas del, 589
Cork Government School of Design, 616
Coroners' inquests, toxicology at, 272
Correspondence, general, 20, 46, 66, 96, 123, 148, 170, 197, 223, 252, 279, 300, 325, 355, 379, 407, 431, 454, 507, 532, 558, 582, 607, 628, 655
....., provincial, 223, 278, 324, 405, 532, 606
..... from Scotland, 223, 278, 324, 405, 532, 606
Correspondents, answers to, 26, 52, 78, 104, 130, 154, 180, 206, 232, 258, 284, 310, 336, 362, 388, 414, 438, 462, 488, 514, 538, 564, 590, 642, 658
Corrigan, D. J., M.D., review, 297
Corsets, history of, 197
Coulson, W., Esq., review, 429
Craig, W., Esq., tracheotomy in a case of croup successful, 522
Craniotomy, 48
Creosote, 404
....., inhalation in phthisis, 196, 507
Cretinism, 461
Crisp's, Dr., apothecary-physicians, 123
Croup, tracheotomy in, 244, 522
Croydon, fatal epidemic at, 129, 179
Crural hernia, 261
Cumming, Mrs., the case of, 103, 309, 432
Curious physiological discovery, a, 257
Cystic swellings, on, 147
Cystocele, vaginal, 391

D

Dalton, Dr., 152
Daltonism, 387
Dauntless, H. M. ship, the, 77
Davey, J. G., review, 637
Deafness, on, 379, 432, 493, 569
....., nervous, 171
....., Mr. Toynbee on, 281, 326
Death from glanders, 153
..... of Dr. G. Gregory, 129

DEATHS:—
Agar, 24; Bruce, 24; Deane, 25; Gray, 25; Leese, 51; Pereira, 120, 128; Gregory, 120, 128; Hills, 152; Wintle, 205; Cloobury, 222; Mathison, 230; Monckton, 230; Sibbald, 230; Bryant, 256; Charlesworth, 256; Gordon, 256; Marwood, 256; Matheson, 256; M'Culloch, 256; Newell, 257; Pocock, 257; Robinson, 257; Robson, 257; Steed, 257; Wright, 257; Manson, 273, 283; Overweg, 283; Orfila, 297, 309; Zapfle, 309; Graves, 335; Bullin, 361; Grant, 361; Hay, 361; Leggatt, 361; Robinson, 361; Dickinson, 377; Chambers, 386; Fernandez, 386; Gale, 386; Marter, 386; Smith, 386; Thompson, 386; Anderson, 413; Dyer, 413; Blair, 436; Harless, 436; Kittermaster, 436; Tulloch, 460; Horley, 460; Jardine, 460; Browne, 487; Hardy, 487; King, 487; Miller, 487; Pulling, 487; Birch, 513; Goblie, 513; Scott, 513; Young, 513; Dawson, 537; Dow, 537; Fletcher, 537; Fox, 562; Grant, 562; Mines, 562; Richardson, 562; Sidley, 562, 588; Stocker, 562; Watkins, 562; Westall, 562; Foote, 588; Kirby, 588; Lawson, 588; Lemercier, 588; Ponsford, 588; Travers, 588; Bailey, 616; Brien, 616; Goolger, 616; Griffith, 616; Lucas, 616; Stilwell, 616; Westcott, 616; Lindoe, 641; Maclise, 641; M'Kechnie, 641; Sewell, 641; Gibson, 657; Stead, 657; Tinney, 657.

Deaths, births, and marriages in England, quarterly return of, 151, 488
Degeneration, fatty, on, 87, 468, 646
Degree, the new midwifery, 172
Degrees and honours, presentation for, 1853, 512, 536
..... in medicine, examinations for, 638
Degrees, spurious, 456
Devon and Exeter Hospital, 487
Diarrhœa, logwood in, 582
...., treatment by sulphuric acid, 159, 224
Dicken, Perry, Esq., extensive gangrene and sloughing of the entire scrotum, 472
Dickinson, W. L., Esq., memoir of, 377
Dickson, Thomas, L.R.C.S.E., review, 94
Digitalis, poisoning by, 153
Directory, London Provincial Medical, review, 95
Discovery, a curious physiological, 257
Disease, clinical study of, 250
..... in Baden, caused by religious excitement, 606
....., venereal, 355
Diseases, chronic, of the heart, 45
....., contagious, 283
....., epizootic, 94
..... of the chest, City of London Hospital for, 59, 318
..... of the ear, observations on, 35
..... of the heart, valvular, 135
..... of the kidney, 581
..... of the mind and moral feelings, 507
..... of the skin, 602
..... of the spine, 439
....., on the acute specific, 233, 259, 285, 311, 415, 463
....., organic, of the stomach, 363, 389, 465, 515, 565, 617
Dismissal of a naval surgeon from the service, 577
Dispensary, Bloomsbury, practice of medicine and surgery at, 632
..... the Dover Hospital and, 77
....., Finsbury, 503
....., St. Marylebone, 654
....., the Metropolitan, 616
....., the Northern, 361
....., North Pancras Provident, 205
....., the Oxford Medical, 461
....., the Surrey, 487
....., the Western, 562
Distribution of gold, the, 537
Dover Hospital and Dispensary, 77
Dressmakers, condition of the London, 423
Drilling the antrum, 201
Dropsy, ovarian, 392
Drugs, their impurities and adulterations, 62, 163, 193, 274, 374
Drunkenness and its treatment in Clonmel, 348
Dublin Hospital grants, 272, 386
Dublin University Commission, 638
Dundas, Robt., M.D., on the arrest of continued fever by cinchonism, 109
Dunglison, R., M.D., review, 404
Duodenum, case of perforating sore of the, 355
Dwellings of the working classes, 487
Dysentery, 580

E

Ear, diseases of the, 35
Earthquake, 387, 563
Eclair, the, 110, 239
Edinburgh, Royal Medical Society of, 335

EDITORIAL ARTICLES:—
Our new year, 17; The midwifery examination at the College of Surgeons, 40; Bad beer, or bad measure, 41; Keswick and its sanitary condition, 41; Anonymous reviewing, and *British and Foreign Medico-Chirurgical Review*, 42; The Pharmaceutical Society and the Medical profession, 60; Fruits of solitary confinement, 61; Rumours from St. Thomas's, 61; The sanitary movement, 92; The University of London franchise movement, 93; Examination reform—Royal College of Surgeons in Ireland, 94; Epizootic diseases, 94; Mortality in the Metropolis, 94; The general practitioners and the New Medical Reform Bill, 118; Yellow fever—Dr. Warburg and the Mail Packet Company, 119; St. Thomas's again, 119; Poor-law guardian liberality, 120; Sudden death of Dr. Pereira, 120; Death of Dr. George Gregory, 120; Vacant Examinership of the University of London, 142; Dr. Marshall Hall and his circular, 143; The "Grant" testimonial, 144; Dr. Hoffman's lectures on organic chemistry, 144; The general practitioners and the proposed new Medical Reform Bill, 161; Dr. Marshall Hall, 162; London Fever Hospital, 163; The New Midwifery Examination at the College of Surgeons, 192; Examination reform—Royal College of Surgeons in Ireland, 193; Hunterian Oration at the Royal College of Surgeons, 193; Dr. Marshall Hall, 193; Drugs and their adulterations, 193; Condition of the Assistant-surgeons in the Navy, 219; Queen's College for ladies, 220; Sanitary Improvement, 220; Memorial to the late Dr. Pereira, 221; Public baths and washhouses, 221; The necessity of suppressing illegal practice, 248; Proposed chair of military surgery, 249; The clinical study of disease, 250; Poisoning by lobelia, 270; Toxicology at Coroners' inquests, 272; Dublin Hospital grants, 272; Professorships of military surgery, 272; The New Charter of the Royal College of Physicians, 291; Income and property tax, 292; Sanitary reform, 293; Medical reform, 320; The out-patients at hospitals, 321; The vacant Examinership at the University of London, 321; The new Medical Reform Bill, 348; The testimonial system, 349; Surgeons to emigrant ships, 350; Royal College of Physicians—proposed New Charter, 372; Anomalies of medical qualification, 372; Dr. George Webster and the New Medical Reform Bill, 373; Bethlem hospital, 373; The present state of the Medical Reform question, 401; Lord Lyttelton's Vaccination Bill, 402; Dr. Babington on the testimonial system, 402; The New Vaccination Bill, 427; The Extra-licentiates of the College of Physicians, 427; The condition of the London dressmakers, 428; Approaching festival of the Medical Benevolent College, 428; The Income-tax, 449; Mr. Syme at the Medical and Chirurgical Society, 450; The election of Examiner in Materia Medica in the University of London, 450; The Vaccination Bill, 451; The Medical Benevolent College, 451; The new Medical Reform Bill, 473; More gems from Irish Poor-law advertisements, 474; The out-patients at hospitals, 475; The College of Physicians and its Licentiates, 500; Medical charities (Ireland), 501; The Queen's late accouchement, 526; An Oriental grievance, 527; Suicide of a prisoner at the Birmingham gaol, 528; *Unsought* newspaper testimonials, 528; Registrar-General's Report, 529; Out-patients in the London Hospitals, 555; Bethlem Hospital, 555; Cancer hospitals and their advertisements, 556; Boons to medical men in the public service, 557; New Medical Reform Bill and the National Institute of Medicine, Surgery, and Midwifery, 557; Medical education, 577; Dismissal of a Naval Surgeon from the service, 577; Medical charities (Ireland)—Only one step more, 579; Table-moving, 579; The medical Reform question, 602; Diseases of the skin, 602; Table-moving, 603; Examinations for degrees in medicine at the University of London, 633; Medical Benevolent College, 633; Naval medical officers, 634; Clinical Medicine, 651; Conveyance of fever patients in public vehicles, 651
Education, medical, 577
Edwards, Mr. Robert, 589
Egan, J. C., M.D., review, 42
Elbow-joint, excision of the, 53
Eldon, Lord, 103
Election of examiner in materia medica, at the University of London, 450
Elections, collegiate, 640
Ellis, Andrew, Esq., review, 194
Emigrant ships, surgeons to, 123, 253, 350
Endemic at Croydon, 179
Enfranchisement of the Universities, 533, 587
England, the public health of, 502, 529, 579
Epidemic, fatal, at Croydon, 129
Epidemiological Society, 25, 74, 248, 437, 616
..... reports of, 227, 334, 411, 561
Epididymis, collodium in inflamation of the, 506
Epilepsia laryngea, 380
Epileptic fits, 158
Epizootic diseases, 94
Espiegle, the, 206
Ethics, medical, 201
Etymological perversions of scientific nomenclature, 302
Examination reform, 193
....., the new midwifery, 68, 192, 223
Examinations for degrees in medicine at the University of London, 633
Examinership at the University of London, the vacant, 142, 321
Excision of the elbow-joint, 53
Experiment in the propagation of fish, 461
Extra-Licentiates of the Royal College of Physicians, 66, 427, 433, 478, 533
Extra-uterine fœtation, case of, 183
..... gestation, 97

F

Faculty of Physicians and Surgeons of Glasgow, 640, 653
Fatty degeneration, Mr. W. F. Barlow on, 87, 468, 646
Fecundity, comparative, of the white and black races, 77
Female Medical College, 461
Fennell *v.* Adams, 656
Fergusson, W., Esq., F.R.S., on excision of the elbow-joint, 53
..... burns and cicatrices, and the operation for crural hernia, 261
Festival of the Medical Benevolent College, the approaching, 428
Fever, 361,
....., continued, 422
..... Hospital, 205
....., intermittent, 147
..... patients, conveyance of, in public vehicles, 651
....., treatment of, 31

Fever, yellow, 25, 119, 327, 350, 386, 461, 513, 537, 589, 607, 641
....., at Barbadoes, 179
....., at Boa Vista, 110, 239
Finsbury Dispensary, 563
Fish, experiment in the propagation of, 461
Fletcher, J. O., Esq., on the arrest of continued fever by cinchonism, 422
Fœtal circulation, 531
Fœtation, case of extra-uterine, 188
Forbes, J., M.D., review, 654
Fothergillian medal, 309
France, 437
Franchise movement of University of London, 93
Francis, D. J. T., M.D., review, 605
French medical statistics, 21
Fund, the Medical Benevolent, 153, 257, 413, 487, 616

G

Gangrene and sloughing of the entire scrotum, 472
Gangrenous metastasis from the lungs to the brain, 354
Gateshead and Newcastle Pathological Society, reports of, 50
Gems from Irish poor-law advertisements, 205, 474
....., more, from Irish poor-law advertisements, 310
GENERAL CORRESPONDENCE :—20, 46, 66, 96, 123, 148, 170, 197, 220, 252, 279, 300, 325, 355, 379, 407, 431, 454, 477, 507, 532, 558, 582, 607, 638, 655
General Practitioners, the, 161
....., and the new Medical Bill, 150
Geological Society, the, 588, 616
George III., Mr. Hunter and, 638
German Hospital, Dalston, 129
Gestation, extra-uterine, 97
Glanders, death from, 153
Glasgow, Faculty of Physicians and Surgeons of, 640, 653
....., University of, 536
Gleet and gonorrhœa, cure of, 519
Goitre and cretinism, 461
Gold, the distribution of, 537
Gonorrhœa, 519
....., tannin in, 355
Gosse, P. H., A.L.S., review, 654
Gout, 539
Graduates of the University of London, the, 21
Graham, T. J., M.D., review, 605
Gramshaw, Henry, Esq., case of rheumatic carditis, 55
"Grant" testimonial, the, 144, 145
....., Klein, M.D., on the medical topography of London, 56
Graves, R. J., M.D., memoir of, 351
Gregory, Dr. G., death of, 120
....., memoir of, 295
Gresham Lectures, the, 562
Grievance, an Oriental, 527
Guildford union, medical inquiry at the, 230
Gulstonian lectures, the, by Dr. Jenner, 233, 259, 285, 311, 415, 463
Gutch, J. W. G., Esq., review, 96
Guy's Hospital, practice of medicine and surgery at, 113, 142, 159, 216, 347, 554, 576, 629

H

Hackney Carriages Bill, 635
Hacon, Edward D., case of placental presentation, 518
Hæmorrhage after delivery, 316, 365
Hæmorrhoids treated by nitric acid, 343
Hall, Dr. Marshall, 162, 170, 193
....., and his circular, 143
Hanwell and Colney Hatch Lunatic Asylums, 129, 461
Harris, C. A., M.D., review, 44
Hartley, D., Esq., testimonial to, 589
Hassall, Dr., and Mr. St. John Edwards, 301
Hayes, Dr. Boon, Lectures on Histological Anatomy and Microscopical Manipulation, 27, 83, 155, 263, 313, 391, 441, 547, 593, 645
Head, case of injury to the, 597
Headache, nervous, 302, 409
Health, public, in Paris, 197
....., of England, the public, 502, 529, 579
....., the army at the Cape, 573
Heart, chronic diseases of the, 45
....., valvular diseases of the, 135
Hemiplegia, 135, 299
Hernia, strangulated diaphragmatic, 147
Histological anatomy and microscopical manipulation, lectures on, by Dr. Boon Hayes, 27, 83, 155, 263, 313, 391, 441, 547, 593, 645
Histology, lectures on, 68
History of corsets, 197
Hofmann, Dr. A. W., a course of lectures on organic chemistry, by, 131, 144, 181, 236, 288, 340, 418, 491, 543, 621
Holland, Dr. Henry, 386
Homœopathy and Dr. Simpson, 507
Honours, military, 205
Hood, Dr. W. C., Report of cases from the Royal Hospital of Bethlem, 420

HOSPITAL REPORTS—

Bloomsbury Dispensary :—Phlegmonous erysipelas of the right arm, accompanied by acute bronchitis, 632. A severe burn on the neck and face, followed by hæmorrhage from the inferior labial artery, 632.
Central London Ophthalmic Hospital :—Adaptation of an artificial eye, 117. Osseous cataract, 217. Abcess within the orbit, producing chemosis, 217. Affections of the eyelids requiring surgical operations; Entropium, 497. Entropium of the lower eyelid in a female, 498.
City of London Hospital for Diseases of the Chest :—Phthisis; Very large vomica; Metallic breathing; Death; Autopsy; Phthisis in Infants, 59. Phthisis; Sudden death from hæmoptysis; Autopsy, 160. Scirrhus of the breast; Multiple cancer of the skin; Deposits on the lungs, producing all the symptoms of Phthisis; Autopsy, 319.
Guy's Hospital :—Strangulated obturator hernia; Operation; Reduction, 113, 142, 216. Case illustrative of the conversion of a sebaceous tumour into a solid mass, 159. Dislocation of the hip in a boy; Reduction a month after the accident, 216. Treatment of chronic abcess of the breast, and milk fistulæ; Employment of iodine injections, 247. Reduction of a scrotal hernia, which had been for nearly six months irreducible, 534. Punctured wound of the abdomen; Profuse arterial hæmorrage; Subsequent peritonitis; Recovery, 576; Hæmatocele of the tunica vaginalis, with much thickened sac; Operation; Recovery, 629.
Hospital for Women :—Cases of ovarian dropsy, 16, 526; Cases of induration and hypertrophy of the uterus, 269.
Hospital for Diseases of the Skin :—Treatment of ulcers of the leg, 397.
King's College Hospital :—Scirrhous cancer of the breast; Excision; Recovery, 344. Compound fracture of the skull; Depression of bone unattended by symptoms of compression; Laceration of the brain; Fracture of the skull, etc.; Lateral fracture of the base of the skull, 423. Double congenital hernia; Strangulation of the right side; Operation; Sudden death; Autopsy; Large hydatid cyst in the liver, 445. Acute renal dropsy; Complete recovery, 552. Punctured wound of the chest; Recovery, 575. Hæmatocele, with much thickened funica vaginalis; Excision of the testis and its coverings, 628.
London Hospital.—Traumatic abscess in the brain; Evacuation by puncture; Apparent recovery; Relapse; Death; Autopsy, 15. Spontaneous fracture of the humerus, 39. Necrosis of the humerus from injury; Amputation; Recovery, 115. Strangulated inguinal hernia in an infant; Operation; Reduction; Recovery, 189. Diffuse scirrhous cancer of the breast; Excision; Recovery, 318. Treatment of ulcers of the leg, 397. Strangulated inguinal hernia; Reduction by operation; Death from internal strangulation, 448. Reduction by taxis of a scrotal hernia; Persistence of symptoms; Operation; Death; Autopsy; Internal strangulation, 448. Operation for strangulated congenital hernia in a child nine weeks old; Recovery, 448. Excision of a large and almost solid bursal tumour; Recovery. The treatment of enlarged bursæ over the patella by free incisions. Removal of a large suppurated cyst in the buttock; Recovery, 496. Large growth of medullary and melanotic cancer in the leg; Excision, 524. Melanotic growth within the orbit, 525. Ulceration of the duodenum, occurring after a severe burn, 554. Paraplegia from concussion; Expectant treatment; Complete recovery, 575. Ptosis and impairment of the movements of the eyeball from concussion; Recovery, 575. Solid tumour in the upper part of the orbit; Excision; Recovery, 599. Use of the long splint in fractures of the thigh, 600. Large encysted hæmatocele of the epididymis; Double cyst; Excision of the testis, 630.
Manchester Royal Infirmary :—Bilateral operation for stone, 399. Unreduced dislocation of the patella, 399.
Middlesex Hospital :—Fracture of the tubercle of the tibia by the muscular action of the rectus femoris, 268. Fracture of the thyroid cartilage; immediate loss and gradual recovery of the voice, 269. Scirrhus of the breast, illustrating an unusual duration of the disease, 318. Gonorrhœa orchitis; Acute abscess in the inguinal canal around the vas deferens, 397. Fracture of the os pubis; Recovery, 397. Treatment of ulcers of the leg, 397. Hydrocele, with thickened and inelastic sac; Iodine injections, and use of the air compressor; Recovery, 631.
Plymouth Parochial Infirmary :—Extraordinary case of delirium tremens, 399.
Royal Berkshire Hospital :—Dry gangrene of the upper extremity; Humid gangrene of the toes; Death, 498. A case of uric acid calculus, which appeared to have been dissolved in the bladder by the use of alkaline remedies; Uric acid calculus; Unsuccessful attempt at solution; Operation, 600.
Royal Free Hospital :—Obstinate ulcer on the leg; New method of inducing cicatrisation, 398. Melanosis of the pain of the forearm; Excision; Recovery, 525.
Royal London Ophthalmic Hospital :—Medullary cancer of the eye; Removal of the globe; Recovery, 116. Melanotic growth within the eye; Extirpation of the globe; Recovery, 525. Partial opacity of the lens, producing the symptoms of short sight, 631. Fluid cataract; Puncture of capsule, and immediate removal of the fluid from the anterior chamber, 631
Royal London Orthopædic Hospital :—Division of the hamstring tendons in cases of contracted knee-joint, 190.
St. Bartholomew's Hospital :—Large pendulous hypertrophy of the skin of the buttock; operation; recovery; Cancer of lower jaw, 14. Medullary cancer of the humerus; Amputation at the shoulder-joint; Recovery, 36. Medullary cancer originating in the fibula; Amputation; Recovery, 37. Medullary cancer of the femur; Amputation; Recovery, 37. Fracture of the left ilium; Recovery, 89. Dislocation of right os innominatum; Laceration of urethra; Fracture of sternum, &c., 89. Probable fracture of pubic bones, with rupture of bladder, 89. Separation of symphisis pubis; Fracture of os pubis; Rupture of bladder; Death, 90. Rupture of the bladder from violent concussion of the abdomen; Death, 90. Rupture of liver and intestine from concussion of abdomen; Death, 114. Hydatid cysts in the liver, and also in the tissue of various muscles, 140. Removal of an exostosis of the femur, 160. Large serous abscess in the thigh; Evacuation; Recovery, 189. Large anomalous tumour in the neck, with great distension and varicose enlargement of closely adjacent veins; Operation; Death; Autopsy. Dislocation of the femur in front of the rami of the pubes; Reduction. Dislocation of the hip consequent on acute rheumatism. Dislocation of the hip in a child, 213. Extraction of an immense calculus by the lateral operation; Death; Autopsy; Analysis of the calculus, 247. Scirrhus of the breast at an unusually early age. Scirrhus cancer of the male breast; Excision; Recovery. Circumscribed cancer of the breast; Excision; Recovery. Fibro-plastic tumour of the breast; Excision; Appearance of scirrhus cancer in the cicatrix; Second Excision. Scirrhus of the breast; Excision; Recovery, 345. Diffuse hæmatocele of the spermatic cord, 370. Enormous growths of medullary cancer from the skull and clavicle; death; autopsy, 396. Fracture of the base of the skull; Fracture of the thigh, and compound fracture of olecranon; Abscess in the brain, 424. Operation for strangulated femoral hernia; Reduction; subsequent gangrene of the bowel; Recovery, 446. Strangulated umbilical hernia; Operation; Recovery, 447. Fibro-plastic growth in the head of the tibia; Amputation of the thigh; Recovery, 496. Melanosis of the skin under the lower jaw; Excision; Recovery. Melanosis of the skin on the dorsum of the foot; Excision; Recovery. Melanosis of the skin of the foot; Twice excised; Return of disease in inguinal glands; Death. Medullary and melanotic cancer of the testis; Excision; Recovery, 523. Melanosis of the skin of the back; Excision; Recovery, 553. Probable fracture with displacement of the tenth and eleventh dorsal vertebræ; Recovery, 574. Punctured wound of the chest; Profuse hæmorrhage; Effusion into the pleura; Expectant treatment; Recovery, 599. Fractured rib; emphysema; Alarming dyspnœa; Venesection; Favourable progress, 599. Double encysted hydrocele of the spermatic cord; Radical cure, 629. Double encysted hydrocele of the cord or epididymis; Palliative treatment, 629. Mr. Lloyd's new lithotomy operation, 632.
St. Mary's Hospital :—Soft Cancer of the femur, following a severe dog-bite; Amputation of the thigh, 38. Fracture of the skull, 91. Phagedænic ulceration; Necrosis of tibia, extending into the ankle-joint; Amputation; Death, 115.
St. Thomas's Hospital :—Medullary cancer of the ulna; Excision; Recovery, 38. Phthisis and Pneumo-Thorax; Metallic respiration; Death; Autopsy, 58. Compound fracture of pelvis; Rupture of the bladder, 90. Rupture of jejunum and mesentery; Death, 114. Cases of extensive necrosis; Operations, 114. Abscess in the liver; Rupture into the peritoneal sac; Death; Autopsy, 140. Abscess in the liver; Evacuation through the lung; Recovery, 141. Removal of a solid tumour from the neck, pos-

sessing peculiar characters, 160. Strangulated inguinal hernia in a boy; Operation; Recovery, 190. Dislocation of the hip in a child, 216. Scirrhous cancer of the skin and liver, following the removal of an innocent tumour from the breast, 317. Diffuse hæmatocele of the spermatic cord, 370. Treatment of abscess by the side of the urethra, 371. Severe compound fracture of the skull, with depression; Compound fracture of the Frontal bone; with Depression; Loss of a portion of Brain, 425.

University College Hospital:—Large congenital tumour of the skin, 15. Dislocations of the humerus, 57. Fracture of the ilium; Recovery, 89. Encysted vesical calculus; Abscess of the liver; Rupture into the Pericardium; Death; Autopsy, 139. Hydatid abscess of the liver, 140. Administration of Chloroform; Death from Cardiac Syncope; Autopsy; Fatty Degeneration of the heart, 369; Strangulated femoral hernia; Operation; Removal of a large mass of omentum; Peritonitis; Sloughing of the sac; Recovery, 445. Strangulated congenital hernia; Operation; Removal of a large mass of omentum adherent to the testis; Recovery, 446. Partial dislocation of the fourth or fifth cervical vertebra; Reduction; Recovery, 574. Large punctured wound of the Pleura; Pleurisy; Pericarditis; Peritonitis; Antiphlogistic treatment; Recovery, 598.

Hospital, Bethlem, 230, 373, 413, 555
....., gases from, 420
....., Devon and Exeter, 487
..... and Dispensary, Dover, 77
....., the Central London Ophthalmic, practice of medicine and surgery at, 117, 217, 497
....., Charing-cross, 636, 654
....., City of London, for Diseases of the Chest, practice of medicine and surgery at, 59, 160, 318
....., German, Dalston, 129
..... grants, the Dublin, 272, 386
....., Guy's, practice of medicine and surgery at, 113, 142, 159, 216, 347, 554, 576, 620
....., Kent County Ophthalmic, 248
....., King's College, 487
....., practice of medicine and surgery at, 344, 423, 445, 552, 574, 628
....., Metropolitan Free, 654
....., the London, 205
....., practice of medicine and surgery at, 15, 39, 115, 189, 318, 397, 448, 496, 524, 554, 574, 599, 630
....., the London Fever, 163, 205
....., Middlesex, 161, 257, 499, 510
....., practice of medicine and surgery at, 268, 318, 397, 631
Hospital, the Royal Berkshire, practice of medicine and surgery at, 498, 600
....., the Royal Free, 129, 525, 537
....., practice of medicine and surgery at, 398
....., the Royal London Ophthalmic, practice of medicine and surgery at, 116, 190, 525, 631
....., the Seamen's, 146
....., St. Bartholomew's, practice of medicine and surgery at, 14, 36, 89, 114, 140, 160, 189, 213, 247, 345, 370, 396, 424, 446, 496, 523, 553, 574, 599, 629, 632
....., St. George's, 77, 91
....., St. Luke's, 205
....., St. Mark's, 588
....., St. Mary's, 588
....., practice of medicine and surgery at, 38, 91, 115
....., St. Thomas's, 25, 386, 616
....., practice of medicine and surgery at, 25, 38, 58, 90, 114, 140, 160, 190, 216, 317, 370, 425
..... statistics, 532
....., and the students, 408
....., University College, 103, 460
....., practice of medicine and surgery at, 15, 57, 89, 139, 369, 445, 574, 598
....., the Warneford, 461
....., the Westminster, 205
..... for Consumption and Diseases of the Chest, 25, 589
..... Diseases of the Skin, practice of medicine and surgery at, 397
..... Sick Children, 335
..... Women and Children, Leeds, 563
..... for Women, practice of medicine and surgery at, 16, 269, 526
Hospitals, Cancer, 556
....., the Succession Tax and the, 652
..... the out-patients at, 321, 475
..... out-patients in the London, 555
Houghton, J. H., Esq., on polypus of the uterus, 189
Hovell, D. de Berdt, Esq.; Instrument for uterine hæmorrhage, 35, 149, 171
Hovell's, Mr., truss, 407
Hull Medical Protection Association, 325, 334
Hunter, Mr., and George III., 638
Hunterian Museum, the, 361
..... Oration, the, 51, 193
..... Society, 335
Hydatids, 531
.....uterine, 210, 252
Hydrophobia, 563, 589
.....,mercury in, 185
Hyposulphite of soda in sarcina ventriculi, 624
Hysteria and catalepsy, local, 1
..... simulating peritonitis, 199

I.

Ice in typhus, 580
Idiots, the Asylum for, 144
Illegal practice, the necessity of suppressing, 248
Impurities and adulteration of drugs, 62, 163, 274, 374
Income and property-tax, 292
..... tax, the, 386, 437, 449, 507
....., Worcester, 361
Indecent advertisements, 357
India, 25, 437, 562
....., cholera in, 187
....., native talent in, 635
Infants, traumatic cataract in, 45
Infirmary, Bradford, 589
....., the Manchester, 179
..... Royal, practice of medicine and surgery at, 399
....., the Plymouth Parochial, practice of medicine and surgery at, 399
....., the Royal Sea-bathing, 563
....., the Torquay, 563
Inflammation in joints, 66
Injury to the head, case of, 597
Inman, Thos., M.D., on remarkable loss of teeth in the upper jaw, 55, 149
Inoculation with pus from a venereal sore for the cure of venereal disease, 355
Inquest on Dr. R. Chambers, 413
Insane, prize essay on the, 607
Insanity, 637
....., causes of, 563
Institute, National, 557
Institution, Medical Provident, Stratford-upon-Avon, 461
....., the Royal, 24, 129, 170, 335
Institutions, mortality in public, 362, 371, 413, 438, 462, 488, 514, 537, 564, 590, 642
Instrument for uterine hæmorrhage, 35, 149, 171
Intelligence, Parliamentary, 604, 635
....., law, 656
Interments, Intramural, 361
Intermittent fever, 147
Intramural interments
Iodine injections in ascites, 123
..... in dysentery, 580
..... injection of alcoholic tincture of, into tumours, 122
Iceland, physicians in, 537
Ireland, medical charities, 501, 579
....., medical officers, 635
....., rain in, 563
....., Royal College of Surgeons, 193, 615
....., union medical officers, 604

J

Johns, M., M.D., Review, 558
Joints, inflammation in, 66
Jenner, W., Dr., monument to, 437
....., on the acute specific diseases, 234, 259, 285, 311, 415, 463
Jews in Prussia, vital statistics of, 487
Jackson *v.* Roe, 231
Jacksonian prize, the, 437
Jaundice, 568

K

Kahn, Joseph, M.D., review, 170
Kennion, G., M.D., review, 654
Kent County Ophthalmic Hospital, 248
Keswick, 205
....., and its sanitary condition, 41
Kidney, case of tubular inflamation of the, 573
....., diseases of the, 581
King's College, 257, 309
....., farewell address of Dr. Todd, on his resignation of the professorship of physiology at, 322
..... Hospital, 487
....., practice of medicine and surgery at, 344, 423, 445, 552, 574, 628
Kirkes and Burrows, Drs., illustrations of clinical medicine, 8, 489, 643
Kirwan, Mr., case of, 47, 51
....., Dr. Taylor, on the case of, 152
Knee-joint, amputation at the, 606
Knox, Robert, M.D., review, 121
Kousso, 69
Kurrachee, 437

L

Labour, tedious, tartar emetic in, 47, 68
Ladies, Queen's College for, 220
Langley, Wm. L., M.D., case of extra-uterine fœtation (ovario-tubal), 188
Lard, adulteration of, 231
Laryngeal and throat affections, 207
Law intelligence, 656
Lawrance, R. M., M.D., review, 558
Lawrence, W., Esq., F.R.S., on wounds of blood-vessels of the lower extremities, 591
Laws of the Hull Medical Protection Association, 334
LECTURES, Etc., BY—
Aldis, C. J. B., M.D., F.R.C.P., 158
Barclay, Dr., 548
Barclay, A. Whyte, M.D., 31
Barlow, W. F., Esq., M.R.C.S., 87, 468
Bird, Golding, M.D., A.M., 11
Brigham, W., Esq., F.R.C.S., 470
Brodhurst, Bernard E., Esq., 185, 594
Brown, J. Baker, Esq., F.R.C.S., 394
Budd, George, M.D., F.R.S., 363, 389, 465, 515, 565, 617
Burrows, Geo., M.D., F.R.S., S, 135, 489, 643
Chuckerbutty, S. G., M.D., M.R.C.S., 568
Cooke, William, M.D., M.R.C.S., 343
Coppinger, James Joseph, M.D., 421
Craig, Wm., Esq., 522
Dicken, Perry, Esq., M.R.C.S., L.S.A., 472
Dundas, Robert, M.D., 109
Fergusson, Wm., Esq., F.R.S., 53, 261
Fletcher, J. Ogden, Esq., M.R.C.S.E., 422
Gramshaw, Henry, Esq., M.R.C.S.E., L.A.S., 55
Grant, Klein, M.D., 56
Hacon, Edward D., Esq., 518
Hayes, Boon, M.D., 27, 83, 155, 263, 313, 391, 441, 547, 593
Hofmann, A. W., M.D., F.R.S., 131, 181, 236, 288, 340, 418, 491, 543, 621
Hood, W. E., M.D., 420
Houghton, J. H., Esq., M.R.C.S.E., 189
Hovell, D. de Berdt, F.R.C.S.E., 35
Inman, Thomas, M.D., 55
Jenner, Wm., M.D., F.R.C.P., 233, 259, 285, 311, 415, 463
Kirkes, W., M.D., S, 489, 643
Langley, William L., M.D., 188
Lawrence, W., Esq., F.R.S., 591
Lee, Henry, Esq., F.R.C.S., 5, 105
Liebig, Baron Von, 79
Lowes, Frederick J., M.D., 517
M'William, J. O., M.D., F.R.S., R.N., 110, 239
Marsack, Blackall, Esq., M.R.C.S, 597
Mason, R., Esq., M.R.C.S., 573
Mill, C. J., Esq., 573
Milton, John L., Esq., 519
Neale, R., M.D., 624
North, S. W., Esq., M.R.C.S., L.A.C., 159
Pretty, W., Esq., 648
Ramsbotham, Francis H., M.D., F.R.C.P., 12, 86, 137, 210, 316, 365
Rigby, Edward, M.D., 33
Smith, Henry, Esq., 244, 626
Solly, Samuel, Esq., F.R.S., 439
Tanner, T. H., M.D., 392
Thom, Alexander, Esq., 187
Todd, Robert B., M.D., F.R.S., 1, 207, 337, 443, 539
Toynbee, Joseph, Esq., F.R.S., 493
Waller, Charles, M.D., 185, 266, 623
Walshe, W. H., M.D., 366
Wilde, W. R., Esq., F.R.C.S., 35
Wilson, Alexander, M.D., 368
Yearsley, James, Esq., 549

Lectures, Clinical, 1, 5, 53, 105, 135, 207, 261, 337, 363, 389, 439, 465, 489, 515, 539, 565, 591, 617, 648
....., the College, 308, 513
..... Gresham, 562
..... Gulstonian, 233, 259, 285, 311, 415, 463
..... on Histology, 68
....., Original, 1, 5, 27, 53, 79, 83, 105, 131, 135, 155, 181, 207, 233, 236, 259, 261, 263, 285, 288, 311, 337, 340, 363, 389, 415, 418, 489, 441, 463, 489, 515, 539, 565, 591, 617, 643
Ledwich, T. H. and E., review, 404
Lee, Henry, Esq., F.R.C.S., on the mode of formation of secondary abscesses, 105
..... obliteration of varicose veins, 5
...., R., M.D., review, 19
Leeds, hospital for women and children, 563
Lettsomian lectures, the, 179
Levee, the, 230, 283, 436
Lewes, G. H., Esq., review, 195
Liability of a parent for medical attendance upon his son, 309
Library of the late Dr. Pereira, 658
Licentiates, the, of the College of Physicians, 500
Licentiates in midwifery, 67, 97, 205, 230, 615
Liebig, 413
....., accident to, 437
....., on the study of the natural sciences, 79
....., testimonial to, 362
Lobelia, poisoning by, 270
Lodging-houses, common, 513
Logwood in diarrhœa, 582
London and Provincial Medical Protection Benevolent Society, 59
..... Fever Hospital, 163
..... Hospital, the, 205
....., practice of medicine and surgery

at, 15, 39, 115, 189, 318, 397, 448, 496, 524, 554, 574, 599, 630
....., Medical Reform Committee, 588
....., medical topography of, 56
....., PRACTICE OF MEDICINE AND SURGERY, 14, 36, 57, 89, 113, 138, 159, 189, 213, 247, 268, 317, 344, 369, 396, 423, 445, 496, 523, 552, 574, 598, 628
....., University of, 283, 294, 386, 535, 587
Loss of all the teeth in the upper jaw, 55, 149
Lowes, F. J., M.D., case of traumatic tetanus successfully treated by chloroform, 517
Luke, James, Esq., 588
Lunacy, 230, 413
....., extraordinary commission of, 387
....., in Marylebone, 153
Lunatics, 513
Lunatic asylums, 461, 581
Lymph, Vaccine, 123, 638, 655
Lykanthropia, case of, 506

M

M'William, J.O., M.D., F.R.S., observations on a recently published work entitled, "Fever at Boa Vista, unconnected with the visit of the Eclair to that island, 110, 239
Maclise, Mr., 589
Mail Packet Company and Dr. Warburg, 119
Man-midwives and incompetent persons, 148
Manchester Royal Infirmary, 179
....., practice of medicine and surgery at, 399
"Manly Vigour" impostors, 46
Manson, Mr., death of, 272
Marischal College and University of Aberdeen, 396
Marriages, births, and deaths in England, quarterly return of, 151
Marsack, B., Esq., interesting case of injury to the head, 597
Marylebone, lunacy in, 153
Materia medica, election of Examiner in, at the University of London, 450
Medical appointments, 77, 103, 129, 152, 179, 205, 230, 256, 308, 361, 436, 460, 486, 513, 537, 562, 615
..... assistants, 281
..... Benevolent College, 103, 161, 309, 413, 451, 487, 513, 576, 633
..... Fund, 153, 257, 413, 487, 616
..... Bill, the new, 355
..... charities, Ireland, 501, 579
..... Act, 587, 605
....., meeting in Ireland, 613
..... charges, 455, 478
..... Club in London, 357
..... College, Female, 461
..... Departments, Ordnance and Line, 103
..... Directory, the, 356
..... education, 577
..... establishment, Bombay, 387
..... ethics, 201
..... men in the public service, boons to, 557
MEDICAL NEWS, 24, 51, 77, 103, 128, 152, 179, 205, 230, 256, 283, 308, 335, 361, 385, 412, 436, 460, 486, 513, 536, 562, 587, 615, 640, 657
Medical officers, Boards of Guardians and their, 356, 582
....., Ireland, 635
....., naval, 631
..... of Assurance Societies, 638
....., Union, Ireland, 604
..... Profession, the, and the Pharmaceutical Society, 60
..... prizes, 152
..... Profession in Prussia, 461
..... Protection Association, the Hull, 325, 334
..... Provident Institution, Stratford-upon-Avon, 461
..... qualification, anomalies of, 372
..... Reform, 118, 149, 161, 201, 320, 348, 352, 355, 373, 380, 401, 473, 478, 557, 562, 588, 602, 604, 612, 652
..... Reform Bill, the new, 535
..... registration, Ireland, 386
..... science, progress of, 44, 66, 120, 147, 196, 277, 299, 354, 404, 453, 506, 530, 580, 606
..... Society of London, reports of, 21, 71, 99, 126, 150, 177, 224, 282, 305, 331, 409, 483, 534, 609
..... topography of London, 56
Medicine and surgery, the London Practice of, 14, 36, 57, 89, 113, 138, 159, 189, 213, 247, 268, 317, 344, 369, 396, 423, 445, 496, 523, 552, 574, 598, 628
..... Provincial Practice of, 399, 498, 600
....., clinical, 651
....., illustrations of, 8, 489, 643
Membrana tympani, artificial, 408
....., destruction of the, 379
Memoir of Mr. Cleoburey, 222
..... Dr. R. J. Graves, 351
..... the late Wm. Lindow Dickinson, Esq., 377
..... Dr. Pereira, 166
Memorial to the late Dr. Pereira, 221
Men-midwives of the College of Surgeons, 123
Menorrhagia, 33
Menstruation, the cause of, 432
Mercurial ointment, 274
Mercury in hydrophobia, 185
....., preparations of, 163
Mesmerism, 558
Metastasis, gangrenous, 354
Metropolis, mortality in the, 94, 102
..... water supply, 400
Metropolitan Dispensary, 616
..... Free Hospital, 654
Miasma, puerperal, 196
Microscope, the, 77
Microscopical manipulation and histological anatomy, lectures on, by Dr. Boon Hayes, 27, 83, 155, 263, 313, 391, 441, 547, 593, 645
..... Society, the, 152
Middlesex Hospital, 161, 257, 499, 510
....., practice of medicine and surgery at, 268, 318, 397, 631
Midwifery cases, compulsory attendance on, 357
..... degree, the new, 172
.....examination, the new, 40, 68, 102, 223, 507
....., licentiates in, 67, 97, 205, 230, 615
Millbank Penitentiary, 146
Military appointments, 24, 51, 77, 103, 129, 179, 230, 256, 283, 308, 335, 361, 386, 412, 433, 460, 486, 513, 537, 562, 588, 615, 641
..... honours, 205
..... surgery, professorships of, 272
.....,proposed chair of, 249
Militia appointments, 51, 77, 103, 129, 152, 230, 256, 412, 486, 513, 537, 562, 588, 615, 641, 657
Milk, composition of, in the human female, 278
Mill, C. J., Esq., case of tubular inflammation of kidney, 573
Milton, J. L., Esq., on the cure of gleet and obstinate gonorrhœa, 519
Model patient, a, 554
Mohl, Hugo Von, review, 169
Monument to Dr. Jenner, 437
Morbid desire to kill, on the, 121
Morison, Sir A., M.D., and Bethlem hospital, 413
Morris, E., M.D., review, 605
Mortality notabilia, 25, 51, 78, 104, 130, 153, 179, 192, 206, 231, 232, 258, 283, 310, 336, 362, 388, 413, 438, 462, 488, 514, 537, 564, 590, 642, 658
..... among the troops in Burmah, 652
..... in public institutions, 362, 371, 413, 438, 462, 488, 514, 537, 564, 590, 642, 658
..... the metropolis, 94, 102
..... New York, 461
..... of Philadelphia, 387
Museum, the Hunterian, 361

N

National Institute, the, and the New Medical Reform Bill, 557
Native talent in India, 635
Natural sciences, on the study of the, 79
Naval appointments, 24, 51, 77, 103, 179, 205, 230, 256, 283, 309, 361, 386, 436, 486, 513, 537, 562, 588, 615, 641, 657
Naval assistant-surgeons, 222, 257, 282
..... medical officers, 634
..... promotions, 256
..... surgeon, dismissal of a, 577
Navy, assistant-surgeons in the, 435, 563
....., condition of assistant-surgeons in the, 219
....., provisions for the, 252
Neale, R., M.D., a case of sarcina ventriculi of many years' duration, treated by the hyposulphite of soda, 624
Nervous affections, 96
..... deafness, 171
..... headache, 302, 409
Neuralgia, treatment of facial, 196
New Holland, aboriginal tribes of, 153
.... Medical Society, 616, 635
.... York, mortality in, 461
Newcastle and Gateshead Pathological Society, reports of, 50
News, medical, 24, 51, 77, 103, 128, 152, 179, 205, 230, 256, 283, 308, 335, 361, 385, 412, 436, 460, 486, 513, 536, 562, 587, 615, 640
Nitric acid, hæmorrhoids treated by, 343
Non-qualification, 487
Norfolk County Lunatic Asylum, 21
North, S. W., Esq., on the treatment of diarrhœa by sulphuric acid, 159
North Pancras Provident Dispensary, 205
Northern Dispensary, Euston-square, 361
Nunn, T. W., Esq., review, 452
Nurses, 276

O

Obesity, 158
Observations on the body of a person beheaded, 405
Ogilvie, Geo., M.D., review, 121
Ointment, mercurial, 274
Old men, semen in, 581
Olliffe, Dr. J. F., 641
Operation for crural hernia, 261
Ophthalmic Hospital, the Central, London, practice of medicine and surgery at, 117, 217, 497
....., the Royal London, practice of medicine and surgery at, 116, 525, 631
Operation for retention of urine, 531
Ordnance and Line Medical Departments, 103
Orfila, M., 277
....., the late M., 413
....., memoir of, 207
Oriental grievance, an, 527
Organic chemistry, a course of lectures on, by Dr. A. W. Hofmann, 131, 144, 181, 236, 288, 346, 418, 491, 543, 621
Organic diseases and functional disorders of the stomach, lectures on, by Dr. G. Budd, 363, 389, 465, 515, 565, 617
ORIGINAL COMMUNICATIONS, 9, 11, 12, 31, 33, 35, 55, 56, 86, 109, 110, 137, 158, 159, 185, 187, 188, 189, 210, 230, 244, 266, 316, 343, 365, 366, 368, 392, 394, 420, 421, 422, 443, 468, 493, 517, 548, 568, 594, 623, 646
ORIGINAL LECTURES, 1, 5, 27, 53, 79, 83, 105, 131, 135, 155, 181, 207, 233, 206, 259, 261, 263, 285, 288, 311, 337, 340, 363, 389, 415, 418, 439, 441, 463, 489, 515, 539, 643
Orthopædic Hospital, the Royal London, practice of medicine and surgery at, 199
..... surgery, 594
Our new year, 17
Out-patients in the London Hospitals, 321, 475, 555
Ovarian Dropsy, 392
Oxaluria, on the development of, 122
Oxford Medical Dispensary, 461
..... University, 562, 587, 615, 640
....., the Radcliffe Infirmary, 361
Oxford, the Warneford Hospital, 461

P

Paget, Mr., 179, 205
Paracentesis thoracis, 25
Paralysis, 421
Paris Academy of Sciences, 461
....., health of, 197
Parisian Medical Society, 51, 309
Parliamentary Intelligence, 604, 635, 652
Pathological Society, reports of, 48, 69, 124, 175, 254, 358, 509, 608
..... the Newcastle and Gateshead, reports of, 50
Patient, a model, 554
Penitentiary, Millbank, 146
Pensions, 257
Pennsylvania Female Medical College, 461
Pereira, Dr., sudden death of, 120
....., the late, 144, 205, 406
....., sale of the library of, 658
....., memoir of, 166
....., memorial to the late, 221
Pericarditis, 568
Perineal section, the, Mr. Syme and, 559
Perinæum, ruptured, 97
Peritonitis, hysteria simulating, 199
Pharmaceutical Society, the, 563, 589
..... and the Medical Profession, 60
Philadelphia, mortality of, 387
Phosphorus in cod-liver oil, 197
Photography, 537
Phthisis, 507
....., pulmonary, creosote in, 196
Physicians in Iceland, 537
....., Royal College of, 24, 205, 335, 383, 385, 429, 451, 503, 530, 562
....., the extra-licentiates of the Royal College of, 66
Placenta prævia, 185, 623
....., detained coagulum mistaken for a portion of retained, 648
Placental presentation, 518
Pleuro-pneumonia in cattle, 589
Plymouth Parochial Infirmary, practice of medicine and surgery at, 399
Poisoned confectionery, 179
Poisoning by accident, 563
..... aconite, 103
..... colchicum, 59
..... digitalis, 153
..... lobelia, 270
Polypus of the uterus, 189
..... uteri, complicated with pregnancy, 12, 86, 137
Poor-law relief, 283
Portsmouth, 235
Practice, Coffin, 590
..... of Medicine and Surgery, the London, 14, 36, 57, 89, 113, 138, 159, 189, 213, 247, 268, 317, 344, 369, 396, 423, 445, 496, 523, 552, 574, 598, 628
..... Provincial, 399, 498, 600
Pregnancy of seven to eight months, 277
Present state of the Medical Reform Question, 401
Presentation, arm, 172
....., placental, 518
....., shoulder, 20, 68
..... for degrees and honours, and distribution of prizes, 1853, 512, 536
Preservation of vaccine lymph, 655
Pretty, W., Esq., detained coagulum removed fourteen days after delivery, by an experienced

accoucheur, and mistaken for a portion of retained placenta, 648
Pretty's, Mr., tourniquet bandage, 327
Prevention of Cholera, 279
Prize, the Jacksonian, 437
....., the Sugden, 205
..... on the insane, 607
Prizes, the collegiate, 536
....., distribution of, for 1853, 512, 536
....., medical, 152
Professorship of military surgery, 272
PROGRESS OF MEDICAL SCIENCE, 44, 66, 120, 147, 196, 277, 299, 354, 404, 453, 506, 530, 580, 606
Prolapsus of the anterior wall of the vagina, 11
Promotions, naval, 256
Provincial Medical and Surgical Association, 476, 503, 653
..... Association, Reform Bill of the, 532
..... Correspondence, 223, 278, 324, 405, 532, 606
..... Practice of Medicine and Surgery, 399, 498, 600
Provisions for the Navy, 252
Pruritus genitalium, 531
Prussia, 387
....., Medical Profession in, 461
....., vital statistics of Jews in, 487
Public health of England, 502, 529, 579
..... in Paris, 197
Puerperal convulsions, 48
..... miasma, 196
Pulsating abdominal tumour, 470
Pulvermacher's chain, 479
Pulvis antimonialis, 374
Pus in the urine, 337, 539

Q

Qualified assistants, 356
Quarterly return of deaths, 488
Queen's, the, late accouchement, 526
Queen's College for Ladies, 220

R

Railway travelling, chances of life in, 484
Rain in Ireland, 563
Ramsbotham, F. H., M.D., case of hæmorrhage after delivery, accompanied with severe afterpains, 316, 365
..... uterine hydatids, 210
....., cases of polypus uteri, complicated with pregnancy, 12, 86, 137
Ratcliffe Infirmary, Oxford, 361
Recipe for Royalty, 513
Rectum, administration of remedial agents by the, 626
....., case of congenital absence of the, 578
Reform Bill of the Provincial Association, 532
....., Examination, 193
....., Medical, 118, 149, 161, 201, 320, 348, 352, 355, 373, 380, 401, 473, 478, 557, 562, 588, 602, 604, 612, 652
....., University, 587
Registrar-General's report, the, 529
Reid, Dr., 537
Rejections of the Royal College of Surgeons, 152
Religious excitement, disease caused by, 606
Remedial agents, administration of, by the rectum, 626
Renal vein, obliteration of, in diseases of the kidney, 581
Report on table-moving, 603

REPORTS OF SOCIETIES:—

ABERNETHIAN SOCIETY OF ST. BARTHOLOMEW'S HOSPITAL:—Serous apoplexy, 306. Cases illustrating the use of chloroform in the treatment of hernia, 458, 586.

EPIDEMIOLOGICAL SOCIETY:—Relations of vaccination and inoculation to small-pox, 74. Influence of noxious effluvia on the origin and propagation of epidemic diseases, 227. Scarlet fever, 354. Anniversary meeting, 411. Comparative mortality of large towns and rural districts, 561.

MEDICAL SOCIETY OF LONDON:—Hypertrophy, with dilatation of the left side of the heart, accompanied by atheromatous deposit in the coronary arteries and throughout the aorta, 21. Prophylactic and curative syphilisation, 22. Remarkable manifestation of hirsute growth in two sisters, natives of Switzerland; Rupture of the perinæum, 71. New kind of curette, 99. Cancer of the breast, 100. Causes and treatment of partial and entire loss of voice, 100. Leucocythæmia, 126. Stone of sugar-apple in one of the bronchi, 126. Remarkable case of sarcina ventriculi, 127. Eccentric forms of prevailing disorders, 150. The proximate cause of insanity, 150. Fibrous tumour of the uterus; Extraordinary substances in the urine; The fibrinous constituent of the blood in relation to disease, 177. Malignant tumour of the right ovary; Large biliary concretion; Peritonitis from perforation, 224. Anniversary meeting, 282. Imperforate anus; Aneurisms; Uterine hydatids; On the modus operandi of mercury in the cure of Asiatic cholera, 305. Psychotherapeia; Engorgement of the mamma, followed by formation of milk; subacute inflammation of the uterus in virgin females, its symptoms, diagnosis, and treatment, 331. Fibrinous menstruation; Case of croup; Delirium tremens, 409. Cat head monster; Cancer of the hand; On the questionable utility of tracheotomy in the treatment of epilepsy, 483. On death from chloroform; Craniotomy in extreme distortion of the pelvis; Case of intussusception, 534. Treatment of aneurism by injecting iron into the sac; Anæsthetic properties of the lycoperdon proteus; Purulent infection; Discoloration of the hair; Sudden death from plugging of the pulmonary veins in a pregnant lady, 611.

PATHOLOGICAL SOCIETY OF LONDON:—Uterine polypi, 48. Mammillated state of the mucous membrane of the stomach, 48. Extravasation of blood into the pons varolii and cerebellum, 48. Extravasation of blood in the heart, liver, and kidneys, after fever; Tubercular deposits in the lungs, kidneys, and spleen; Epithelial cancer of the tongue; Tubercle in the peritoneum and in the Fallopian tubes; Case of ulceration of the fibrous laminæ of the membrana tympani, 49. Microscopical characters of the fluid taken from a cyst in the kidney, 50. Case of complete bony anchylosis of the stapes to the fenestra ovalis; Tumour at the base of the brain; Enormous enlargement of the liver from medullary disease in conjunction with pregnancy (twin gestation suspected); Disease of the hip and remarkable incurvation of the right femur, 69. Case of encysted cancer of the brain; Diseases of the aortic and mitral valves, 124. Malformation of the heart; Lobular hypertrophy and scirrhus in the same breast; Rupture of the jejunum, and laceration of the mesentery; Ulceration of the intestine; Encephaloid cancer of the kidneys; Calculous Pyelitis, 125. Large phlebolithes from a horse; Atheromatous deposit in, and rupture of, one valve of the aorta; congenital union of two of the valves, 126. Malformation of the heart; Absence of the ventricular septum; The specimen of lobular hypertrophy and scirrhus of the breast; Calculus abcess in the pelvis; Artificial tympanic membranes; Encephaloid cancer; Fibrinous deposits in the spleen and thoracic glands, 176. Rheumatic disease of bones, 177. Scrofulous tumours of the brain; Malformation of the pulmonary valves; Case of fracture of the last dorsal vertebra, with destruction of the spinal marrow; Specimen of extravasation of blood into the substance and upon the surface of the brain; Malignant disease of the chest; On the mode of dissecting the ear for the purpose of pathological investigation, 254. Primary scirrhus of the peritoneum; Scrofulous deposit occupying the right optic thalamus, and the right crus cerebri; Encephaloid carcinomatous growths from the dura matter around the foramen magnum; Villous cancer of the large intestine; Enchondroma of the left testicle; Disease of the mitral valve; Diseased heart and kidneys; Complete obstruction of the spongy portion of the urethra; Scrofulous caries of the dorsal vertebræ, 358. Complete closure of the pulmonary artery; Cyanosis; Extensive ulceration of the stomach; Almost complete obstruction of the small intestine from injury; Fleshy mole; Neuroma of the auditory nerve; Encysted Calculus; Aneurism of the ascending aorta; Medullary cancer of the leg, 509. Enormously dilated stomach; Malformation of the umbilical cord; Calcareous concretions of the peritoneum; Softening of the brain; Pus in the orbit; Fibrin in the sinuses of the brain; Arrest of bone in the œsophagus and consequent disease of the spinal marrow, with ulceration of an intervertebral cartilage; Ovarian tumour; Uterine polypus; Medullary cancer of the Femur; Perforation of the Stomach, 608.

NEWCASTLE AND GATESHEAD PATHOLOGICAL SOCIETY:—Sac of a large aneurism arising from the left subclavian artery, 50.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY:—Particulars of two cases of popliteal aneurism treated by compression, with some general observations on that plan of treatment, 97. A case of large axillary aneurism, in which the subclavian artery was successfully tied; On degeneration of the placenta at the end of pregnancy, 172. Hypertrophy and prolapse of the tongue, 202. Appendix to Mr. Humphrey's paper on hypertrophy of the tongue, 203. Induction of premature labour before the seventh month of pregnancy, 204. Anniversary meeting, 258. A further account of fatty degeneration of the placenta, and the influence of this disease in producing death of the fœtus; Hæmorrhage, and abortion; On some points of the pathology and treatment of yellow fever; New galvanic battery, 303. Researches on the pathology of obstruction of the veins, and the nature and proximate cause of phlegmasia dolens, 328. Case of gangrena senilis successfully treated by amputation of the thigh; On a simple method of ascertaining, without the use of the catheter, whether the Eustachian tubes are pervious; with some observations on the treatment of cases of obstruction in these tubes, 380. Case of scirrhus of the prostate gland; Case of perforation of the œsophagus; On the mechanism by which air is admitted to the cavity of the tympanum through the Eustachian tube, and its bearings on the pathology of the middle ear, 458. Treatment of obstinate stricture of the urethra by external incision upon a grooved director, 480. Further researches on the pathology of phlegmasia dolens, 583. On the use of two needles at once in operations on the eye; Analyses of the cases of injuries of the head examined after death, in St. George's Hospital, from January, 1841, to January, 1851, 639. A case of perforating ulcer of the œsophagus, which caused death by penetrating the aorta, 655. Observations on the state of the blood and the bloodvessels in inflammation, 655. On primary and secondary fibrinous deposits, 655.

ROYAL SOCIETY:—The solution of urinary calculi in dilute saline solutions, at the temperature of the body, by the aid of electricity, 21. On the muscles which open the Eustachian tube, 229.

WESTERN MEDICAL AND SURGICAL SOCIETY OF LONDON:—Anniversary meeting, 433

Retention of urine, 531
Retrospect of practical therapeutics, 23

REVIEWS:—

A Dictionary of Practical Medicine, etc., etc. (By James Copland, M.D., F.R.S., 18; Principles of Human Physiology, with their Chief Applications to Psychology, Pathology, Therapeutics, Hygiene, and Forensic Medicine. By William B. Carpenter, M.D., F.R.S., F.G.S., 18; A Practical Treatise on Inflammation of the Uterus, its Cervix, and Appendages, and on its Connexion with Uterine Disease. By James Henry Bennett, M.D., 19; Clinical Reports of Ovarian and Uterine Diseases. With Commentaries. By Robert Lee, M.D., F.R.S., 19; The Journal of Psychological Medicine and Mental Pathology. Vol. V. Edited by Forbes Winslow, M.D., 19; Syphilitic Diseases. By John C. Egan, M.D., 42; A Treatise on Electricity in Theory and Practice. By A. de la Rive, 43; On the Growth of Plants in Closely-glazed Cases. By N. B. Ward, F.R.S., 44; The Principles and Practice of Dental Surgery. By Chapin A. Harris, M.D., 44; Asylums for the Insane, etc. By Thomas Dickson, L.R.C.S.E. 94; On the Pathology and Treatment of Hysteria. By Robert Bradenell Carter, 95; The London and Provincial Medical Directory, 1853, 95; The Literary and Scientific Register and Almanack for 1853. By J. W. G. Gutch, M.R.C.S.L., 96; The Modern Practice of Physic. By Robert Thomas, M.D., 120; A Manual of Human Anatomy: Descriptive, Practical, and General. By Robert Knox, M.D., F.R.S.E., 121; An Introductory Lecture Delivered at the Opening of the Medical Session in Marischal College and University, Aberdeen, on Nov. 1st, 1852. By George Ogilvie, M.D., 121; A Treatise on Auscultation and Percussion. By Dr. Joseph Skoda. Translated from the Fourth Edition by Dr. W. O. Markham, 146; A Treatise on Operative Ophthalmic Surgery. By H. Haynes Walton, Surgeon to the Central London Ophthalmic Hospital, and Assistant-Surgeon to St. Mary's Hospital, 167; Principles of the Anatomy of the Vegetable Cell. By Hugo Von Mohl. Translated by Arthur Henfrey, F.R.S., 169; Atlas of the Formation of the Human Body in the Earliest Stages of its Development; compiled from the Researches of the late Professor Dr. M. P. Erdl. By Joseph Kahn, M.D. (Vienna), 170; A Lecture on the Working of the Medical Charities Act. By Andrew Ellis, F.R.C.S.I., 194; Two Letters to Charles Dickens on Spontaneous Combustion. By G. H. Lewes, 195; Observations on Syphilis and on Inoculation as the Means of Diagnosis in Ulcers and Discharges invading the Genital Organs. By John Crowch Christophers, 196; The British Medical Directory for England, Scotland, and Wales, 276; The Dissector's Manual of Practical and Surgical Anatomy. By Erasmus Wilson, F.R.S., 276; Six Lectures on Materia Medica and its Relation to the Animal Economy. Delivered before the Royal College of Physicians in 1852. By John Spurgin, M.D., 276; Lectures on the Nature and Treatment of Fever. By D. J. Corrigan, M.D.T.C.D., M.R.I.A., 297; Sanitary Measures and their Results; being a Sequel to "The History of Cholera in Exeter in 1832." By Thomas Shapter, M.D., 298; On the Local Application of a Benumbing or Congealing Temperature in Inflammatory, Painful, and Malignant Diseases. By James Arnott, M.D., 299; An Essay on the Poison of the Cobra di

Capello. By John Cockle, A.M., M.D., F.R.C.S.E., etc., 299; A Text-Book of Physiology. By Dr. G. Valentin. Translated and Edited from the German Edition by William Brinton, M.D., 353; Urinary Deposits; their Diagnosis, Pathology, and Therapeutical Indications. By Golding Bird, A.M., M.D., etc., 354; On Diseases of Women, and Ovarian Inflammation in relation to Morbid Menstruation, Sterility, Pelvic Tumours, and Affections of the Womb. By Edward John Tilt, M.D., 378; Homœopathy. By James Y. Simpson, M.D., F.R.S.E., 379; The British and Foreign Medico-Chirurgical Review, or Quarterly Journal of Practical Medicine and Surgery. Vol. XI., 408; The Practical and Descriptive Anatomy of the Human Body. By T. H. Ledwich and E. Ledwich, 404; A Dictionary of Medical Science. By R. Dunglison, M.D., etc., 404; Hysterical and Nervous Affections of Women. By W. J. Anderson, F.R.C.S., 404; On Lithotomy and Lithotrity. By William Coulson, Esq., 429; Results of the System of Separate Confinement, as administered at the Pentonville Prison. By John T. Burt, B.A., 430; The Obstetric Catechism. By Joseph Warrington, M.D., 431; Report of the President of the Queen's College, Galway, for the Academic Year of 1851-52, 452; Inflammation of the Breast and Milk Abscess. By Thos. W. Nunn, 452; The Treatment of Obstinate Ulcers and Cutaneous Eruptions on the Leg, without Confinement. By H. T. Chapman, F.R.C.S., 558; On the Application and Effect of Electricity and Galvanism in the Treatment of Cancerous, Nervous, Rheumatic, and other Affections. By R. M. Lawrance, M.A., M.D., 558; A Clinical Phrase-book, in English and German. By M. Johns, M.D., 558; The Medication of the Larynx and Trachea. By S. Scott Alison, M.D., 558; Change of Climate, Considered as a Remedy in Dyspeptic, Pulmonary, and other Chronic Affections. By D. J. T. Francis, M.D., etc., 605; Modern Domestic Medicine. By Thomas J. Graham, M.D., etc., 605; A Concise Practical Treatise on Neuralgia; its Various Forms, Pathology, and Treatment. By Edwin Morris, M.D., F.R.C.S., 605; On the Nature and Proximate Cause of Insanity. By James George Davey, M.D., 637; Memorandums made in Ireland in the Autumn of 1852. By J. Forbes, M.D., F.R.S., 654; A Naturalist's Rambles on the Devonshire Coast. By P. H. Gosse, A.L.S., 654; Observations on the Medicinal Springs of Harrogate. By G. Kennion, M.D., 654.

Rheumatic carditis, case of, 55
Rheumatism, 568
....., acute articular, 196
Rigby, Edward, M.D., on menorrhagia, 33
Rival brothers, 616
Rive, Aug. de la, review, 43
Royal Academy, the, 513
..... Berkshire Hospital, practice of medicine and surgery at, 498, 600
..... College of Physicians, 24, 205, 335, 383, 385, 427, 429, 433, 451, 475, 478, 500, 503, 508, 530, 533, 562
....., the Extra-licentiates of the, 60
....., the New Charter of the, 291, 372, 422, 454, 477
..... College of Surgeons, 51, 103, 152, 179, 230, 283, 308, 361, 385, 412, 436, 460, 486, 513, 536, 562, 588, 615, 640, 657
..... and its results, 148
....., rejections at the, 152
....., memorial from Wakefield to the, 221
....., the men-midwives of the, 123
..... in Ireland, 103, 615
..... Free Hospital, 129, 525, 537
....., practice of medicine and surgery at, 398
..... Hospital of Bethlem, 230, 373, 413, 420, 555
..... Institution, 24, 129, 170, 335
..... London Ophthalmic Hospital, practice of medicine and surgery at, 116, 525, 631
..... London Orthopædic Hospital, practice of medicine and surgery at, 190
..... Medical and Chirurgical Society, reports of, 97, 172, 202, 253, 303, 328, 380, 457, 480, 583, 639
..... Society of Edinburgh, 335
..... Sea-Bathing Infirmary, Margate, 563
..... Society, reports of, 21, 229, 460, 513, 616
..... Veterinary College, 437
Royalty, recipe for, 513
Rumours from St. Thomas's, 61
Ruptured perinæum, 97

S

Sanitary, 257
..... arrangements of the Swedish Government, 589
..... condition of Keswick, 41
Sanitary improvement, 220
..... movement, the, 92
..... reform, 293
Sarcina ventriculi, case of, 624
Scientific Lectures, list of, 291, 348, 371, 400, 426, 449, 473, 499, 526
.....Meetings, list of, 60, 92, 118, 142, 161, 192, 219, 248, 270, 348, 371, 400, 426, 449, 473, 499, 526, 555, 576
Scotkind, correspondence from, 223, 278, 324, 405, 532, 606
Scrotum, gangrene and sloughing of the entire, 472
....., sloughing of the, 560
Sea-bathing Infirmary, the Royal, 563
Semen's Hospital, the, 146
Secondary abscesses, on, 105
Semen in old men, 581
Sewers, City Commissioners of, 283
Shapter, Thos., M.D., review, 298
Shorthouse, Mr., case of, 324
Shoulder presentation, 20, 68
Sidney, Mr., death of, 588
Simpson, Dr., and homœopathy, 507
....., J. Y., M.D., review, 379
Skin, diseases of the, 602
...., Hospital for Diseases of the, practice of medicine and surgery at, 397
Skoda, Dr. J., review, 146
Skodas's theory of bronchophony, 286
Sloughing of the scrotum, 560
Small-pox, 230, 513, 563, 589
..... and vaccination, 434
Smith, Dr. E., and Charing-cross Hospital, 636
..... Henry, Esq., on the administration of remedial agents by the rectum, 626
....., on the use of tracheotomy in croup, 244
Societies, reports of, 21, 48, 69, 97, 124, 150, 172, 202, 224, 253, 282, 303, 328, 358, 380, 409, 433, 457, 480, 509, 534, 561, 580, 608, 639
Society, a new medical, 616, 635
..... for Relief of Widows and Orphans of Medical Men, 335, 386
..... of Arts, 641
....., the Abernethian, reports of, 306, 458, 586
....., the Army Medical Benevolent, 513
....., Berlin Medical, 51
....., the Botanical, 77
..... , Epidemiological, 25, 74, 248, 437, 616
....., reports of, 227, 334, 411, 561
....., the Geological, 588, 616
....., the Hunterian, 335
..... London and Provincial Medical Protection and Benevolent, 59
....., the Medical, of London, reports of, 21, 71, 99, 126, 150, 177, 224, 282, 305, 331, 409, 483, 534, 609
....., the Microscopical, 152
....., Parisian Medical, 51, 309
....., the Pathological, reports of, 48, 69, 124, 175, 254, 358, 509, 608
....., the Pharmaceutical, 563, 589
....., and the Medical profession, 60
....., the Royal, reports of, 21, 229, 460, 513, 616
..... Medical and Chirurgical, reports of, 97, 172, 202, 253, 303, 328, 380, 457, 480, 583, 639, 655
....., the Medical and Chirurgical, Mr. Symo at, 450
....., Royal Medical, of Edinburgh, 335
....., the Statistical, 103
..... Surrey Medical Benevolent, 335
..... Western Medical and Surgical, 77
....., reports of, 433
Solitary confinement, fruits of, 61
Solly, S., Esq., on diseases of the spine, 439
Spain, 438
Spine, diseases of the, 439
Spleen, albuminuria and anasarca in connexion with affections of the, 122
Spontaneous amputations, 405
..... expulsion, 455
Spurgin, John, M.D., review, 276
Spurious degrees, 456
St. Andrew's, University of, 179, 511
... Bartholomew's Hospital, practice of medicine and surgery at, 14, 36, 89, 111, 140, 160, 189, 213, 247, 345, 370, 396, 424, 446, 490, 523, 553, 574, 599, 629, 632
... George's Hospital, 77, 91
... Luke's Hospital, 103, 205
... Mark's Hospital, 588
... Mary's Hospital, 588
....., practice of medicine and surgery at, 38, 91, 115
... Marylebone General Dispensary, 654
... Thomas's Hospital, 25, 380, 616
....., practice of medicine and surgery at, 25, 38, 58, 90, 114, 140, 160, 190, 216, 317, 370, 425
..... again, 119
....., rumours from, 61
St. Vitus's dance, arsenic in, 405
Stabbing case at the War Office, the alleged, 129
Statistical Society, the, 103
Statistics, army, 641
....., French medical, 21
....., hospital, 408, 532
..... of aural disease, 200
....., vital, of Jews in Prussia, 487
Stays, 366
Stethoscope, the, 21
Stomach, lectures on the organic diseases and functional disorders of the, 363, 389, 465, 515, 565, 617
Stomatitis, case of pseudo-membranous, 198
Stratford-upon-Avon, Medical Provident Institution, 461
Strychnine in incontinence of urine, 147
Studentships, the College, 640
Succession-tax and the hospitals, 652
Sudden death of Dr. Pereira, 120
Sugden prize, the, 205
Suicide of a prisoner at the Birmingham gaol, 528
Sulphur precipitatum, 62
..... sublimatum, 65
Sulphuric acid in diarrhœa, 159, 224
"Surgeons," charge of procuring abortion against two, 485, 510, 522, 589, 641
....., the Royal College of, 51, 103, 152, 179, 205, 230, 283, 308, 361, 385, 412, 436, 460, 486, 513, 536, 562, 588, 615, 640, 657
..... to emigrant vessels, 123, 253, 350
....., naval assistant, 282
Surgery, the London Practice of Medicine and, 14, 36, 57, 89, 113, 138, 159, 189, 247, 268, 317, 344, 369, 396, 423, 445, 496, 523, 552, 574, 598, 628
....., military, 272
....., orthopædic, 594
....., proposed chair of military, 249
....., the Provincial Practice of Medicine and, 399, 498, 600
Surrey Dispensary, 487
..... Medical Benevolent Society, 335
Syme, Mr., at the Medical and Chirurgical Society, 450
....., and the perineal section, 559
Syphilization, on, 44

T

Table-moving, 579, 603
....., report on, 603
.....-prophesying, 607
Tanner, T. H., M.D., case of ovarian dropsy, in which the removal of the tumour was followed by death, 392
Tannin in gonorrhœa, 355
Tartar emetic in tedious labour, 47, 68
Taylor, Dr., on the case of Mr. Kirwan, 152
Teeth, loss of, in the upper jaw, 55, 149
Testimonial, 77, 657
..... system, the, 340
....., on the, 402, 407, 408
....., the "Grant," 144, 145
..... to D. Hartley, Esq., 589
..... Liebig, 362
Testimonials, *unsought* newspaper, 528
Tetanus, traumatic, 506, 517
Therapeutics, retrospect of practical, 23
Thom, Alex., Esq., notes on cholera in India, 187
Thomas, Robert, M.D., review, 120
Throat affections, 207
Tilt, E. J., M.D., review, 378
Tincture, Dr. Warburg's, 171
Todd, Armstrong, M.B., on certain cases in which chloroform may prove injurious, 443
...., Dr., farewell address on his resignation of the Professorship of Physiology at King's College, 322
...., R. B., M.D., cases in which pus is found in the urine, 337
.....
....., and gout as it affects the bladder, 539
..... on laryngeal and throat affections, 207
..... local hysteria and catalepsy, 1
Tonsils, enlarged, and deafness, 432
....., on excision of the, 493, 549
Torquay Infirmary, the, 563
Tourniquet bandage, 327
Toxicology at coroners' inquests, 272
Toynbee, Mr., 641
....., on deafness, 281, 326
....., J., F.R.S., ought the tonsils or uvula to be excised in the treatment of deafness? 493
Tracheotomy, chloroform in place of, 380
..... in croup, 244, 522
Traumatic cataract in infants, 45
..... tetanus, 506, 517
Treatment of abscess of bone, 453
..... acne and boils, 47
..... facial neuralgia, 196
..... fever by large doses of sulphate of quina, 31

Treatment of yellow fever, 327
Truss, Mr. Hovell's, 407
Tubercle in bone, 453
Tuberculosis of the vagina, 606
Tumour, a pulsating abdominal, 470
....., a remarkable, 147
Tumours, injection of alcoholic tincture of iodine into, 122
Typhus, ice in, 580

U

Ulcerated sore throat, chlorine in, 407
Urine, incontinence of, strychnine in, 147
Urine, pus in the, 337, 539
Uterine hæmorrhage, instrument for, 35, 149, 171
Uterus, polypus of the, 189
Union medical officers, Ireland, 604
United States, 537
....., Census of the, 25
Universities, enfranchisement of the, 533
University and King's College, Aberdeen, 486
..... College and the New Charter, 657
..... Hospital, 103, 460
....., practice of medicine and surgery at, 15, 57, 89, 139, 369, 445, 574, 598
..... of Cambridge, 587
..... Commission, Dublin, 638
..... of Glasgow, 536
..... London, 283, 294, 386, 450, 479, 535, 587
....., Examination for degrees in medicine at the, 633
....., representation of, 47, 96
....., the franchise movement of the, 93
....., the late election at the, 408
....., the vacant Examinership at the, 142, 321
..... Oxford, 562, 587, 615, 640
University of St. Andrew's, 179, 511
..... reform, 587
Unsought newspaper testimonials, 528
Uterine hydatids, 252
Uvula, on excision of the, 493, 549

V

Vacancies, 103, 129, 152, 179
Vaccination, 309
Vaccination Bill, the new, 348, 402, 409, 411, 427, 437, 451, 560, 605, 607
....., compulsory, 413, 431, 456, 508, 638
....., small-pox and, 434
Vaccinators, parochial, important to, 309
Vaccine from the cow by inoculation, 200
..... lymph, 123, 638, 655
Vagina, tuberculosis of the, 606
Vaginal cystocele, 394
Valentin, Dr. G., review, 353
Valvular diseases of the heart, 135
Varicose veins, on the obliteration of, 5
Veterinary College, the, 437
Vital statistics of Jews in Prussia, 487
Vomiting, chloroform in sympathetic, 252

W

Wakefield, memorial from, to the College of Surgeons, 221
Waller, C., M.D., case of Cæsarian section, at the full period of utero-gestation, 266
....., cases of placenta prævia, 185, 623
Walshe, W. H., M.D., on the breathing movements in the two sexes, and on the alleged influence of stays in producing pulmonary consumption, 366
Walton, H. Haynes, Esq., review, 167
Warburg, Dr., and the Mail Packet Company, 119
Warburg's, Dr., tincture, 171
Ward, N. B., F.R.S., review, 44
Warneford Hospital, Oxford, 461
Warrington, J., M.D., 431
Warts, carbonate of magnesia in, 45
Washhouses, public baths and, 46, 221, 231
Water supply, the Metropolis, 400
Waterloo, 192
Webster, Dr. George, and the New Medical Reform Bill, 373
West Indies, 283, 461
Western Dispensary, 562
..... Medical and Surgical Society, 77
....., reports of, 433
Westminster Hospital, 205
Wilde, W. R., Esq., F.R.C.S., practical observations on diseases of the ear, 35
Wilson, Alex., M.D., case of infantile convulsions, 369
Wilson, Erasmus, Esq., F.R.S., review, 276
Winslow, Dr. Forbes, 616
....., F., M.D., review, 19
Women, Hospital for, practice of medicine and surgery at, 16, 269, 526
Worcester, the Income-tax, 361
Working classes, dwellings of the, 487
Wounds of bloodvessels of the lower extremities, 591
..... of the head, 277

Y

Yearsley, J., Esq., ought the enlarged tonsils or the elongated uvula to be excised in the treatment of deafness? 549
Yellow fever, 25, 119, 350, 386, 461, 513, 537, 589, 607, 641
..... at Barbadoes, 179
....., treatment of, 327
Yeomanry Appointments, 335

LIST OF ENGRAVINGS.

Illustrating cancer cells from the heart and pleura. Case at St. Bartholomew's Hospital, 15
———— an instrument for preventing the entrance of air into the chest during the performance of paracentesis thoracis, 25
———— Dr. Boon Hayes's Lectures on Histological Anatomy and Microscopical Manipulation, 28, 83, 84, 85, 155, 157, 264, 265, 313, 314, 315, 442, 547, 548, 645, 646
———— an instrument for uterine hæmorrhage. By D. de Berdt Hovell, Esq., F.R.C.S.E., 36
———— medullary cancer originating in the fibula. Case at St. Bartholomew's Hospital, 37
———— cells in a soft cancer of the femur. Case at St. Mary's Hospital, 39
———— microscopic examinations of drugs and their impurities. Sulphur, 64, 65; mercury, 164; mercurial ointment, 274
———— operation in rupture of the perinæum, 72
———— medullary cancer of the eye. Case at the Royal London Ophthalmic Hospital, 117
———— case of stone of sugar-apple in one of the bronchi, 127
———— case of encysted vesical calculus. Case at University College Hospital, 139, 140
———— Dr. Hofmann's lectures on organic chemistry, 182, 183, 184, 236, 237, 259, 290
———— division of the hamstring tendons in cases of contracted knee-joint. Case at Royal London Orthopædic Hospital, 191
Illustrating Mr. Hutchinson's air-compressor of the te
———— a large fibrous tumour occupying the pel
case of Cæsarian section at the full period of ute
Charles Waller, M.D., 268
———— cells in a diffused scirrhous cancer of t
at the London Hospital, 318
———— cells in a circumscribed cancer of the t
St. Bartholomew's Hospital, 346
———— cells in a fibro-plastic tumour of the St.
Bartholomew's Hospital, 346
———— case of vaginal cystocele, or prol erior
wall of the vagina and bladder; and a new cure.
By J. Baker Brown, F.R.C.S., 395, 396
———— enormous growths of medullary can skull
and clavicle. Case at St. Bartholomew's Hosp
———— operation of trephining in a case of mpound
fracture of the skull, with depression. Case a. Thomas's
Hospital, 425
———— cells in melanosis. Case at St. Bartholomew's Hospital, 523
———— melanosis of the skin of the back. Case at St. Bartholomew's Hospital, 553.
———— contributions to orthopædic surgery. By Bernard E. Brodhurst, Esq., 597

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